Belted Galloway
MANUAL



The Belted Galloway Foundation, Inc.
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In Memory

The Belted Galloway Foundation expresses gratitude for the donations accepted in memory of the following very special individuals.

Richard C. Anderson
ANDERSON HILL FARM
West Rutland, VT

Thomas “Gene” Drew
DRIFTWOOD PLANTATION
Awendaw, SC

Herr Ole Grubbe
GERMANY

Phyllis Margeson
MARGESON FARM
Williamson, GA

Bob Rose
ROSE FARM
Waitsfield, VT

The Honorable Flora Stuart
United Kingdom

Albert A. Tietig
STONECROFT FARM
Georgetown, OH

In Appreciation

The Belted Galloway Foundation board expresses sincere gratitude to all of those who continue to support the Foundation through participation in the various fundraising activities held throughout the years.

In particular, the Foundation would like to express its gratitude to those who have participated in auctions, both as donors and bidders; placed personal phone calls on behalf of the Foundation; and those who generously replied to our donation requests.

It is through the continued support of the Belted Galloway Society's members that the Foundation is able to continue to engage in educational and scientific activities dedicated to the improvement of Belted Galloway breed and support of youth through educational materials, scholarships and providing monetary support to the regional BYG groups.

I. The Breed

THE BELTED GALLOWAY ... AN OLD SCOTTISH BREED

History and Attributes

The unique appearance of Belted Galloway cattle inspires many questions about their origins. With black, red or dun color sandwiched about a white middle, they are familiarly known as 'Belties' among breeders of the animals. Though references to 'sheeted' cattle occur in literature and art as early as the 11th Century, the Belted Galloway's first recorded history indicates that they developed during the 16th Century in the former Galloway district of Scotland, a rugged and hilly seacoast region where hardiness was necessary for survival.

The British Isles then and now raised solid-colored, polled, shaggy-coated Galloway cattle generally considered to have evolved from an early Celtic breed. Precisely when and where selective breeding of the Belted variety of Galloway began is shrouded in mystery, though theories abound.

In our Herd Book Vol. I, early U.S. breeder Mims Wilkinson, Jr. wrote "It has been stated by some authorities that belted, or sheeted, cattle in England go back to the age of Charles II, although they are first mentioned in Scotland in the latter part of the 18th Century. The polled characteristic of Galloways sets them apart from every other breed, they being derived from the original British polled cattle of antiquity.

"Although it is impossible to affirm with certainty whether Belted Galloways were bred from cattle imported to Britain or native cattle, or a combination of the two, the logical conclusion is that they originated from a cross of Black Galloways with Dutch Belted. Though no documentary evidence is available to substantiate the assumption, the known prepotency of the Dutch cattle lends weight to this view, and the frequent trafficking between Scotland and the Low Countries in the 17th and 18th Centuries would provide opportunities for the importation of a few Dutch Belted cattle. The horns, the only essential difference, would disappear with the predominance of Galloway blood.

"There is little doubt that the cattle of the ancient Celtic people of Britain were predominantly black and that the Highland, Galloway and Welsh black are derived from the same stock, which has become diversified through time by selection and environment.

"In the Galloway cattle there were originally various markings and colors [with] the polled characteristic, the coat, the conformation and the fine carcass quality setting them apart from other breeds. Galloways originally were black, spotted, white-faced, red, dun, white and belted. Although the white belt is a dominant genetic trait, occasionally solid black calves are born now in belted herds, and belted calves are born in Black Galloway herds."

Mr. Wilkinson cited as authorities for the above paragraphs Lord David Stuart's 1970 publication, *An Illustrated History of Belted Cattle*; and George Culley's 1786 treatise, *Observations on Livestock.*

Early standards for the breed written in Lord Stuart's book included this description:

> "The cattle of the breed are of typical beef conformation. A good head, especially in bulls, is considered important, and this should be broad with the crown low and flat. The nostrils should be wide and the eyes large and prominent; the ears moderate in length, broad, pointing forwards and upwards with a fringe of long hair. The neck should be fairly long and fit well into the shoulders.
>
> "The body should be deep and full through the heart with a level top and straight underline; the shoulders fine and straight; the breast full and deep, with the ribs well sprung; the hind- quarters long. The flank should be deep and full. The thighs should be deep and fairly straight; the legs short and clean with fine bone and the tail well set on.
>
> "The skin should be mellow and moderately thick, covered with soft, wavy hair with a mossy undercoat. The coat is most important, as it protects the animal. Hard, wiry hair with no undercoat is objectionable, and so is a jet black coat. This should be black with a brownish tinge."

Weights for mature Belted Galloways in North America vary in accordance with their environment. In general, the mature Belted Galloway bull at age 5 weighs within the 1800-lb. to 2000-lb. range, though balance and conformation should be considered before mature weight. There are some very fine bulls producing excellent progeny whose mature weights are less than 1800 lbs.

The Belted Galloway heifer is generally bred at age 14 to 18 months, with many breeders electing to breed at 700 to 800 lbs. without regard to months of age. The mature Beltie cow at age 3 or 4 averages 1100 to 1300 lbs. She can be expected to annually produce a healthy calf well into her teen years. At birth bull calves usually weigh 70 to 80 lbs., heifer calves about 10 lbs. less.

The Beltie as a beef animal produces exceptionally lean and flavorful meat, with carcass dressed weights well in excess of 60 percent of live weight. Winter warmth is provided by the double coat of hair, rather than the layer of backfat most breeds require. The Belted Galloways' heritage has conditioned them to survive in very harsh climates, and U.S. breeders have discovered that the thrifty, medium-sized animals more than earn their way in any beef herd.

Foundation Herds: Imports

By A.H. Chatfield, Jr.

Probably less than 100 Belted Galloways were imported from the United Kingdom to this country by about fifteen breeders during the period from the 1920s until 1989. Export sales of cattle from the UK were banned in July, 1989 due to the outbreak in the British Isles of a lethal brain disorder called bovine spongiform encephalopathy (BSE, or 'mad cow disease').

The following account is doubtless incomplete. Information about Canadian importations from Dr. A.R.C. Butson and Beverly Onufer is gratefully acknowledged.

First Importation into the U.S. - the Dakotas, late 1920s

According to the longtime secretary of General Sir Ian Hamilton, there was a shipment of Belted Galloways in the latter 1920s to a farm or ranch in the Dakotas, but I have not been able to substantiate this with import records, which list Galloways as such without record of color or belt. The information came from Ian Hamilton, nephew of the General, and was confirmed by Lord David Stuart, whose father was the Marquis of Bute and an early Beltie breeder.

Mrs. Alice T. McLean, East Kortwright, NY

Twelve bred heifers and a bull from the Boreland herd of J. Faed Sproat, then of Boreland of Anwoth, Gatehouse of Fleet, were imported in 1939 by Mrs. McLean to her property in the Catskill Mountains. She had the herd for about ten years and showed Belties on several occasions at the Danbury, Connecticut Fair. She never sold any Beltie breeding stock so far as I am aware, but did sell steers for beef. During the period of meat shortages following World War II a dishonest herdsman trucked most of the herd to western New York for black market beef while Mrs. McLean was in England. She never replaced them. I visited her farm in 1954, at which time only a few Belties were left. Mrs. McLean's father was a prominent horseman and at one time was President of the Madison Square Garden horse show.

Harry A. Prock, Hapwood Farm, Whitemarsh, PA.

According to a memoir contributed by Prock's daughter Vera, the Procks decided to establish a Beltie herd after traveling extensively in the British Isles in 1947-48. As buyer, Prock retained Frank W. Harding, a veterinarian, beef cattle judge and U.S. agent for a British livestock export firm, and instructed him to purchase six first-calf Beltie heifers of six different bloodlines and a young, unrelated Beltie bull. All animals were to be registered in the British Herd Book, with fairly uniform belts of narrow to medium width, and no white on the feet. Mims Wilkinson's history of the Belted Galloway Society, Inc. in Volume I of our Herd Book states that six cows and a bull from the Boreland herd were imported by Harry Prock in 1950.

Prock imported Belties twice between 1949 and 1951. Altogether, he imported nineteen females and a bull, BORELAND ADMIRAL (1521B) IB, the first Beltie bull registered with the Belted Galloway Society. The females are listed on pages 107-108 of the Society's Herd Book I:

BORELAND LILYBET 4th, c. 4/20/47; BORELAND VIOLET, c. 6/6/47; ROBERTON COWSLIP, c. 1/20/48; BORELAND WENDY, c. 4/1/48; ROBERTON CLOVER, c. 4/16/48;

BORELAND WILMA, c. 4/20/48; CLOBURN KUTIE, c. 4/6/ 43; WHITTINGEHAME VICTORIA, C. 5/9/45; CLOBURN KOREAN, c. 4/25/45; KIRKENNAN NANCY (Dun), c. 4/24/49; CLOBURN ALICE, c. 5/7/48; CLOBURN ROSEMARY, c. 5/7/48; ROBERTON DULCIE, c. 5/16/49; BORELAND LAVENDER III, c. 5/1/49; BORELAND LILYBET V, c. 9/24/49; CLOBURN ROYAL PRINCESS (no calving date given); BORELAND YOLANDE, c. 4/21/49; MOCHRUM ROSE, c. 3/8/48; and BORELAND SCATWELL LABURNUM, c. 4/17/49. The animals with calving dates in 1949 on the preceding list are presumably among those in the second importation.

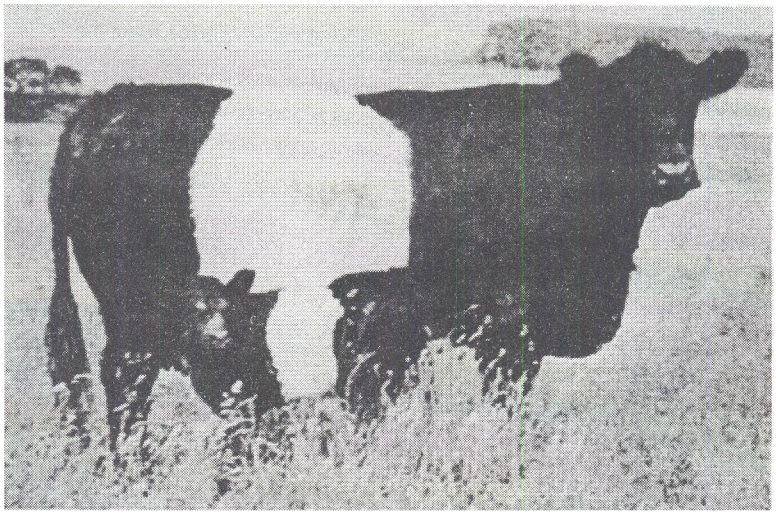
We bought ROBERTON COWSLIP, ROBERTON DULCIE and CLOBURN ALICE from Harry Prock in 1953. MOCHRUM ROSE was sold to Fred Johnson. Evidence from Herd Book I suggests that BORELAND LILY BET 4th, CLOBURN KUTIE and BORELAND YOLANDE also went to Johnson, as they all had calves bearing the farm name Summitcrest in the 1950s and early 1960s. When the Procks gave up their Belties, many of the Hapwood animals were bought by General James Van Fleet and moved to his Withlacoochee Ranch in Florida.

A.H. Chatfield, Jr., Aldermere Farm, Rockport, ME

In 1953 we bought our foundation stock from Harry Prock: three imported cows, three heifers, and a bull, HAPWOOD DANDIE. Born in Canada to a cow bred in Scotland, this bull was registered in both the British and American Herd Books as ALDERMERE HAPWOOD DANDIE, and became the Chatfields' foundation herd sire. We were the second to buy Beltie breeding stock from Prock. Gordon Green earlier bought a son of ROBERTON DULCIE. We sold CLOBURN ALICE to George Eversfield in 1957.

In 1956 we imported two heifers from the Ian Hamilton herd, LULLENDEN IRENE and LULLENDEN ARIGUSTA, and the bull MOCHRUM ORION, whom we used until 1960. In 1960 we imported the bull BURNSIDE GREAT SCOT, the Supreme Belted Galloway in Scotland in 1959. Other bulls imported from the U'.K. to Aldermere Farm were the dun MOCHRUM JAMIE from Flora Stuart's herd (1973-1976) and BORELAND PARAMOUNT from Faed Sproat (1976-1979).

In 1966 we imported two heifers from the Whittingehame herd at East Lothian, owned by the Earl of Balfour. These were WHITTINGEHAME FATIMA and WHITTINGEHAME FARINA NELSON. The latter cow was the origin of Aldermere's outstanding line of Neilson cows. The Neilson females in our herd have tended to be superior to the bulls of that lineage. I took a photograph at Whittingehame of WHITTINGEHAME FARINA NEILSON as a little calf with her dam, WHITTINGEHAME SERENA NEILSON. The dam was the largest Beltie cow I have ever seen.



Whittingehame Serena Neilson and her calf Whittingehame Farina Neilson at Whittingehame, Scotland in 1965. The dam weighed over 1600 lbs.

Fred H. Johnson, Summitcrest Farms, Summitville, OH

Fred Johnson acquired several imported cows from Harry Prock in 1956, including BORELAND LILYBET 4th, BORELAND YOLANDE, CLOBURN KUTIE and MOCHRUM ROSE. Early Johnson herd sires were BURNSIDE HALLMARK imported by Gordon Green and HAPWOOD BARON, bred in Scotland and calved June 23, 1951, a son of Harry Prock's imported cow CLOBURN ROSEMARY. Johnson purchased a half interest in HAPWOOD BARON at the same time he acquired his imported females from Prock. I have an undated photo envelope labeled "Johnson Herd: MOCHRUM Rose, HAPWOOD IRMA." IRMA (c. January 18, 1955) was a daughter of Rose by HAPWOOD BARON.

L.R. Strickland, Dallas, TX

Strickland's foundation Beltie herd sire, purchased in August, 1956, was ALDERMERE DUNCAN, an unregistered son of ALDERMERE HAPWOOD DANDIE and ROBERTON COWSLIP. This bull had a wide white band around his left rear ankle. (His dam, ROBERTON COWSLIP, had white on both rear feet.) In 1973 Strickland .imported a Scottish bull bred by John Graham, CHARNWOOD BRAEBOYNE, calved in 1968, who died in 1977. This bull's sire was the great bull WHITTINGEHAME BROADSWORD, who won the Aldermere Bowl at the Royal Highland Show in Scotland as a yearling in 1961 and again in 1962. Most of Strickland's imported Belties came from the Grahams' Mark herd. Strickland developed a herd of several hundred head at his ranch outside Dallas. Ernie Cutter of New Hampshire is the only person I know who has seen these animals.

There is no record of Strickland's having sold breeding stock. He did not register Belties with the Belted Galloway Society between 1951 and 1971, and is not listed as a member of the Society in Herd Book 1. He is listed as a member in Herd Book II, but only one Strickland bull and no cows are listed. The bull, S. WINSTON, was calved 6/18/76, sired by a Scottish bull, MARK CHURCHILL, out of a Scottish cow, MARK MARY 16.

The two Texans, L.R. Strickland and J.W. Griffith, probably imported as many Belted Galloways as all the rest of us put together.

J.W. Griffith, Gailwen Herd Longview, TX and Fort Garland, CO

J.W. 'Billy' Griffith had one of the top Angus herds in this country, winning many show championships. Belties were a sideline for him. He was a good judge of cattle and made several trips to the U.K., where he got to know many of the Beltie breeders. According to an obituary notice in the 1982 U.K. Belted Galloway News, Griffith imported his foundation Beltie stock in 1965 from J.K. Graham, J. Faed Sproat, E.P. Calvert, Lord Rhidian Crichton-Stuart, and J. & G. Westoll. Altogether he imported four bulls and twelve females.

His first imported herd sire was WESTERN ARCHER, calved in 4/7/64, who was Junior Champion at the 1965 Royal Highland Show. He also owned the bull BEESWING GALLOVIDIAN, calved in 1965, who may have been imported as a calf along with his dam, BEESWING CAROLINE.

Herd Book I lists twelve imported cows in the Gailwen herd, calved between 1961 and 1964: GLENZIER WHOEVER, c. 5/16/63; GLENZIER WELL- AWAY, c. 7/19/63; MARK BELLE 6th, c. 4/4/63; MARK EDDA 6th, c. 2/15/63; BEESWING ELSPETH, c. 1/21/64; GLENZIER WESTWARD, c. 5/30/63; MARK WATERWAVE 7th, c. 5/1/62; GLENZIER WINTER WHEAT, c. 5/30/63; MARK WENDY 5th, c. 3/5/63; MARK DORA 23rd, c. 3/13/63; BEESWING DAINTY, c. 12/28/62; and BEESWING CAROLINE, c. 12/27/61. These fourteen animals may all have come over in a single importation in late 1965.

In 1971 he imported two Scottish bulls, a 2200 lb. dun, MARK SUBSTANCE, c. 4/15/68, and BORELAND DUN EMBLEM 2nd, c. 2/28/66. Two females born in the mid-1970s bearing the Mark herd name are listed with the Gailwen cattle in Herd Book II. They are MARK WATERWAVE 8, c. 6/8/ 75 by MARK SUBSTANCE out of Griffith's imported cow MARK WATERWAVE 7th; and MARK WATERWAVE 8th, c. 8/25/77, offspring of the same bull and cow. From their birth dates and parentage, these two females presumably were calved in this country, despite their herd name.

When we visited Griffith in 1969 at Longview, Texas he had about 100 Betties and a Scottish herdsman. A few years later, in 1970 or 1971, he moved his Beltie herd to the Blanca Trinchera Ranch at Fort Garland in the mountains of southwestern Colorado. After Griffith's death in 1981 the Colorado ranch was sold to the Forbes magazine interests. The new owners did not want the Belties and they were sold.

Despite repeated efforts, I have not been able to trace these cattle.

The Belted Galloway Society has no record of any transfer applications. Perhaps they went to an individual or individuals who had no interest in registering them or their offspring; or they may have gone to a commercial slaughterhouse.

General James A. Van Fleet, Withlacoochee Ranch, Florida and Sleepy Creek Farms, Virginia

I have the impression that General Van Fleet bought a bull and three or four females from Harry and Lillie Prock while they were still active breeders. After the Procks gave up their Belties, General Van Fleet bought part of the Hapwood herd and moved it to his Withlacoochee Ranch in

Florida, where he already had a certified herd of Brahmans and a cross-bred commercial herd. In 1963 he transferred his principal herd of Belties to Sleepy Creek Farm in northern Virginia.

In 1964 he visited Beltie herds in England and Scotland and purchased stock from Mr. William Emmott of Moss End Farms in England - the bull MOSSEND GOLDEN BOY, c. 3/25/63, and the bred heifers MOSSEND MONICA 4th, MAMIE 3rd, CLARISSA 8th, MARGE 5th, DAVINA 3rd, DIDO 4th and MISSIE 3rd, all calved in 1962 or 1963.

In 1975 he imported the bull MOCHRUM TOMMY, calved in 1971, and seven heifers from the Mark Herd: MARK WENDY 16th, WATERWAVE 16th, WATERWAVE 17th, LILY 23rd, RUBY 9th, ALICE 18th, all calved in 1971; and MARK LILY 24th, c. 2/28/72.

Richard C. Anderson, Anderson Hill Farm, Chippenhook, VT

In November, 1988 Dick Anderson imported Christopher Marler's BOLEBEC DUN CONTROLLER (c. 12/12/86), the Junior Champion Bull at the Royal Highland Show at Edinburgh in 1988, BOLEBEC DUN ALBARELLE (c. 9/2/86) and four heifers from the Sproats' Boreland Herd - BORELAND CAPGINA, CAPATIENCE, CAPCAROLYN and CAPGERDA, all calved in March or April, 1987.

Sheri S. Tepper, Jacona Ranch, Larkspur, CO

Sheri Tepper then of Larkspur, Colorado, imported the Sproats' bull BORELAND SLAMMER in the late 1980s and later sold him to Tom Harrower, who sold him to his present owner, John Jeffords of Wyoming. Following a knee injury, Mrs. Tepper was obliged to reduce her herd, selling about 38 head to Tom and Bonnie Harrower of Kemmerer, Wyoming. Mrs. Tepper sold her Colorado ranch and moved to Santa Fe, New Mexico with a few head of Belties in 1990 or 1991.

John D. Jeffords, Iron Mountain Ranch, Iron Mountain, WY

Besides BORELAND SLAMMER, John Jeffords has Belties in Wyoming of U.K. bloodlines obtained through embryo transfer. He also owns Belties in Scotland, Australia and New Zealand.

Imported Bloodlines through Embryo Transfer

Even after the ban on export of cattle from the British Isles in 1989 it was still possible to import frozen embryos from the U.K. into this country and Canada. The late William Storrie of Netherwood, Bathgate, West Lothian, Scotland provided embryos for export. Dick Butson was the first to import Netherwood embryos into North America in March, 1992. Butson got three bull calves and a heifer, all sired by the great bull FIRTH KING HENRY out of Storrie's cow NETHERWOOD NAN. These E.T. calves include MAPLE BRAE BOXER BILL and MAPLE BRAE CHAMP, both current Butson herd sires, and MAPLE BRAE CAROLINE, who had a bull calf in June, 1995.

In September, 1992, Randy Hadden and I jointly imported five Netherwood embryos from the same flush as Butson's. Our three embryos yielded two females, ALDERMERE HILTON in 1993 and ALDERMERE DAWN in 1994. Hadden got a well-marked bull calf in 1995.

Since 1992 Dirigo Land & Livestock of Iron Mountain, Wyoming has imported and transferred almost 300 Belted Galloway embryos from New Zealand and Great Britain. Though only about 40% of the embryos produced calves, some of the most significant herds and Belties of the South Pacific and Great Britain are currently represented in Dirigo's American herd, including Okiwa, Clanchattan and Strathmore Park of New Zealand; Midfern and Belmont Park of Australia; and Broadmeadows, Bolebec, Boreland, Burnside, Firth, Lullenden, Mayberry, Netherwood and Park of Great Britain.

Addenda to Mr. Chatfield's Text

Other genetics arriving on our shores through year 2003 include importations by Steven Silberberg, Holbrook Hill Farm, NH of semen from Australian Champions SHIRALEE MOONSHINE and NORTHFIELD DONALD in 1995 and 1998, as well as from the U.K.'s MOCHRUM KINGFISHER in 2000 and BORELAND JAMES BOND in 2003.

Lisa Wyman and Wayne Budney, Four Winds Farms, CT, through imports from Canada in years 1992 through 1994 of SEWARD'S ZORO, LAZY-L GANGA and Au DOMAINE FIRST 4D, brought us some very superior Red bloodlines.

Dick Anderson of Anderson Hill Farm, VT imported U.K. semen from BOLEBEC GOLDEN ORIOLE in 1999 and BOLEBEC DUN CONCORDE in 2000.

Sue and Gene Drew of Driftwood Plantation, SC combined with Aldermere Farm, ME to import semen from the U.K's LULLENDEN BRUNO in 2000. In 2003 the Drews brought in semen from ASHLEIGH SIGNATURE of Australia, and combined with Jerry and Kathi Jurkowski of Klover Korners Farm, IL to import semen from two Australian champions, LONGFIELD VIPER and LONGFIELD ROBERTO.

Barry McAlley of New Zealand sent semen straws to the U.S. from DUNDRENNAN MACADAM, used by Genie Hart, Curtiswood Farm, KY to produce a good heifer calf in 2001.

John Jeffords' Iron Mountain Ranch & Livestock herd mentioned in the late Mr. Chatfield's article has been sold to Michael and Lorna Caldwell, Caldwell Farms, WI. The U.S. herds are fortunate that these excellent bloodlines have remained intact.

Importations into Canada

According to information supplied by Dick Butson and Beverly Onufer, there is no record in the Canadian Galloway Herd Book of Canadian imports of Belted Galloways from the U.K. before 1952, although General Sir Ian Hamilton and several other breeders exported Beltie bulls to Canada and the U.S., among other countries, in the late 1920s or early 1930s.

H. Gordon Green, Ormstown, Quebec

In 1953 Gordon Green imported a cow, BORELAND ZENA, and her heifer calf, BORELAND GREEN ARPENTS, born in the Scottish quarantine station. That was the start of the Green herd, likewise named Green Arpents. (The word arpent means an acre of land in French.) Green also imported the bull BURNSIDE HALLMARK, the second winner of the

Aldermere Bowl at the Royal Highland Show in 1957. I have always suspected that Fred Johnson had a financial interest in that bull, because he had the use of him along with Green.

Frank J. Selke, Rigaud, Quebec

In 1966 Frank Selke, President of the Montreal Canadiens, imported three Beltie heifers from Scotland to his Rolling Range farm, a former horse farm upriver from Montreal on the way to Ottawa. These were BEESWING EXQUISITE, c. May, 1964, from Lord Rhidian Crichton-Stuart; LULLENDEN CORNCRAKE, c. October, 1963, from Ian B.M. Hamilton, the nephew of Sir Ian Hamilton; and MOCHRUM JANET, c. September, 1963, from Lord David Stuart. JANET was later sold to Earl Howden of Manitoba.

Dr. A.R.C. Butson, Maple Brae Farms Copetown near Dundas, Ontario

Dr. Butson imported BORELAND PHOEBE, c. April, 1970, in November, 1972 from the J.F. and G.B. Sproat herd. This was a fine cow who had a calf almost every year and died aged 18 having had a calf five months previously. In April, 1984 Butson imported MOCHRUM COLUM, c. February, 1983, from Flora Stuart's herd. He used COLUM as a herd sire for ten years, during which time he sired over 150 calves.

W.J. Campbell Bradley, Swift Current, Saskatchewan

In April, 1984 another Stuart bull, MOCHRUM MURDO, c. January, 1983, was imported by the Bradleys. Unfortunately, both COLUM and MURDO were of the age group that had either to go to slaughter or be exported from Canada after a Saler cow in western Canada developed 'mad cow disease' (BSE) in 1994. All cattle imported into Canada after 1981 were subject to this regulation. According to E. Roy Hirch of Taber, Alberta, both bulls went to slaughter,

Earl J. Howden, Maplepine Farm, Lyleton, Manitoba

Earl Howden got his original foundation stock from Frank Selke, including the imported Scottish cow MOCHRUM JANET. Later he imported a Beltie bull bred by J.P. and G.B. Sproat, BORELAND OLYMPUS, c. March, 1975. This bull was the 1977 winner of the Aldermere Bowl in Scotland as a two-year-old, and was also a winner at the 1976 Royal Highland Show. Howden sold semen from OLYMPUS for years.

Standards: Breed Data

Formal Standards for the Belted Galloway have not been published however, breeder surveys conducted in 1995 and 1997 established benchmark ranges and averages which appear online under "Breed Data" at www.beltie.org, along with tabulations of weights and measures taken at several years' shows. Below are summary figures from the most recent survey.

Base Ranges

Data was received for 1200 animals, with Northern breeders comprising the majority of respondents. A summary of scale weighed and heart girth measured animals gave the following weight ranges:

Mature bulls	1600 to 2200 lbs., average 1850 lbs.
Mature cows	820 to 1750 lbs., average 1200 lbs.
Cows age 3-4	700 to 1600 lbs., average 1150 lbs.
Cows age 2	600 to 1620 lbs., average 1100 lbs.
Heifers age 1	.600 to 900 lbs., average 700 lbs.

Bulls

Averages of reported hip height, length (shoulder to tailhead), and scrotal measure:

Mature	54.6" hip height, 6l.3" length, 42.7 cm. scrotal
Age 4	53.0" hip height, 65.0" length, (none available)
Age 3	54.0" hip height, 56.0" length, (none available)
Age 2	52.5" hip height, 56.0" length, 37.3 cm. scrotal
Age 1	49.9" hip height, 50.9" length, 30 cm. scrotal

Cows

Averages of reported hip height and length (shoulder to tailhead):

Mature	49.6" hip height, 53.4" length
Age 3-4	48.8" hip height, 52.5" length
Age 2	48.5" hip height, 50.0" length
Age 1	47.2" hip height, 47.1" length

Calves

Birth weights ranged from a low of 45 lbs. to highs of 101 and 102 lbs., but most calves were close to the overall average, 74 lbs. for males and 65 lbs. for females. (Calves born during the winter may have slightly heavier weights.)

Weanlings

The majority of calves were weaned close to the overall average of 185 days. Daily weight gains (ADG) ranged from lows of .76 lb. to highs of 2.96 lbs. Overall average gains per day were 1.78 lbs. for females and 1.88 lbs. for males.

Genetic Conservation

During the 2001 Foot & Mouth Disease scare the American Livestock Breeds Conservancy ("ALBC") in conjunction with the Belted Galloway Society added a Belted Galloway genetic pool to the gene bank started in 1986, to insure continuation of our genetics in case of disaster.

(1) 10 unrelated bull lines which are 5 or more generations pure. "Unrelated" is defined as having no grandparents in common.

(2) Contributions of 50 ampules/straws of semen per bull to ALBC are sought, as well as individual embryos.

(3) Donations of Belted Galloway embryos are sought.

(4) Donors will receive charitable contribution letters for tax purposes.

(5) Genetic material will be held for long-term emergency use with donors having first use of the pool.

Steven Silberberg (NH) coordinated efforts toward conservation of Belted Galloway genetics and reported in 2003 that straws pledged to the bank are held in several locations at breeders' services such as North American and Genex. If you are interested in supporting ALBC's conservation efforts, please contact Steven at (603) 472-2205 or hhf18@aol.com.



II. Herd Management

Selecting a Belted Galloway Sire

by Dwight Howard

Selection of the Belted Galloway bull is the most important task a breeder faces, and can be a very frustrating part of raising Belties. Because very little performance testing is being done on Belted Galloways, it has been more or less a visual decision as to which bull would do well in your herd.

First one must look objectively at his or her own herd. What are the weak points - poor legs and feet, sloping rear end, lack of muscle, small frames? If females in the herd are small-framed, don't look at a bull with a large birth weight. If you are fortunate enough to find performance tested bulls, the bull's birth weight should not be over 80 to 85 lbs. However, 70 to 75 1bs. would be better to breed young heifers.

Look for 205-day adjusted weight of 500 lbs. or, preferably, 600 lbs., and 365-day adjusted weight of 950 lbs. This should be raised to 1,000 lbs. in the next few years.

As to conformation, the bull's feet and legs are of first importance. A bull must have a good stride, no toeing out, and with a little set to the hind legs -- not straight. The bull should possess a straight topline, good muscling, and a head that is masculine but not huge. Testicles should be of good size and hang well below the body for top quality semen production.

Probably ninety percent of Beltie bulls are underworked. About six females to breed is enough for a bull 16 to 20 months old -- this way they will have time to eat and put on growth during their first season. Soon after breeding is completed the bull should be put on a good growing ration so he will gain 2-3lbs. per day.

Most older bulls will not need grain after their breeding season, but their condition should be watched carefully. If a bull is thin a couple of months before his breeding season, grain should be given to put him in good physical condition. A mature bull should be able to breed twenty to thirty cows.

It's a good idea to have the bull's semen checked for fertility before breeding season. This is a sure way to know if the bull has gone sterile or has a low sperm count, which can result in a year with no calves or very late calving.

So far as width of the belt is concerned, it affects only his appearance. The bull's belt will have little to do with the width of the calves' belts. We shouldn't breed for this trait alone, because it could mean losing many of the excellent characteristics of the breed.

Artificially Breeding Belties

By V. L. Eggleston, D.V.M.

Q. *At what age or size should you start breeding heifers?*

A. The heifer should attain two-thirds her mature size before she is bred. Example: If the animals' expected mature weight is 1000 lbs., then she could be bred at 650 lbs. or over. Many breeders like to breed heifers at 14 to 15 months of age in order to have them calve when 24 months old. If she has reached the desired weight and has had several good heat periods, she should conceive when bred by artificial insemination (A.I.). Heifers not exhibiting normal heat periods, or who have not attained adequate size, should not be bred until they do. In general, heifers seem to settle better than cows when bred artificially.

Q. *How many days after freshening should you start breeding cows?*

A. The amount of time you wait after freshening (calving) depends on several factors. (a) The amount of weight loss between freshening and the time you want to breed the cow. The greater the weight loss, the longer it takes for the cow to have a normal heat period. (b) Whether or not the cow had calving problems. (c) Whether she is cycling normally. (d) When you want her to calve the following year.

Q. *How do you detect the heat period?*

A. Detecting the heat period is very difficult if you have only one or two animals. In the early stages the animal will often pick another to butt heads with. Very often a clear vaginal discharge will be present. Later, usually within 24 hours, she will stand when mounted and/or will mount other animals. After the 'standing' period, the cow sometimes will butt heads again. A small amount of bloody discharge often appears on the tail within 48 hours after a standing heat.

Q. *How do you know when to breed the cow during the heat period? Also, how many times should the cow be artificially inseminated?*

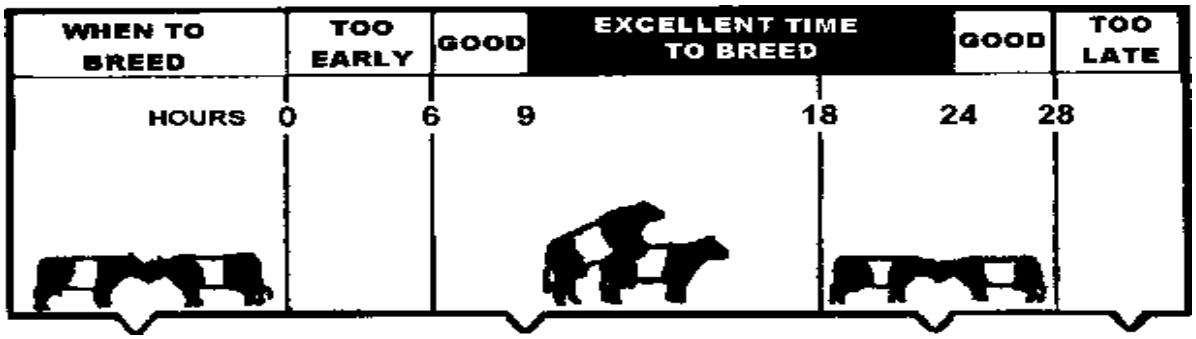
A. Ideally, the animal should be bred at the end of standing heat. The length of the heat period varies greatly between animals. It is best to observe and record all heat periods the cow has, to help determine the pattern she exhibits while in heat. If the timing of the breeding is accurate, the cow should have to be inseminated only once each heat period. If the period is longer than anticipated, or the signs of heat are questionable, breeding more than once at 24-hour intervals can be helpful.

Q. *What are the factors that reduce the animal's conception rate?*

A. One factor to consider is that the cow may not be in a normal heat. (a) This is most commonly caused by an energy deficit. The effects can range from not cycling at all to cycling internally, but not exhibiting noticeable outward signs. The most common reason for this is that the cow is using up more energy feeding herself and her calf than she is consuming, causing her to experience a negative energy balance and loss of weight. The first compensation for this energy deficit by the

cow is to cease reproductive activity. (b) Cystic ovaries may cause a hormonal imbalance that prevents the cow from having a normal heat period.

Other factors to consider are: timing of the breeding, quality of the semen, handling of the semen and heat stress. If the cow's internal temperature exceeds 104 degrees, the conception rate is severely decreased.



BEFORE HEAT (6-10 hrs.)	STANDING HEAT (18 hrs.)	AFTER HEAT (10 hrs.)	LIFE OF EGG
Bawls frequently	Stands to be ridden	Will not stand	(6-10 hrs.)
Smells other cows	Nervous and excitable	Clear mucous	
Attempts to ride other cows	Rides other cows		
Vulva moist, red, slightly swollen	Vulva moist and red		
Restless	Clear mucous discharge		
	Head up		
	Other cows excited by smell		
	Bag distended		
	Calf ignored		

The expected conception rate on cows bred artificially with normal heat periods is 50 percent. Heat detection can be aided by the use of prostaglandin injections or CIDR, a vaginal implant. Neither of these products will make the heat exhibition stronger, however, they can markedly improve the timing of the breeding.

Dr. Eggleston retired as veterinarian with the St. Anna Veterinary Clinic in east central Wisconsin where a significant amount of his work involved reproduction in the dairy cattle. He subsequently served as President of the Wisconsin Veterinarian Association prior to accepting an Associate Scientist position with the U of WI Vet School at Madison overseeing Johne 's field research. He has served as Executive Director of the Belted Galloway Society since April of 2010.

The Process of Embryo Transfer

Embryo Transfer (E.T.) carries selective breeding for positive traits a step further by taking the genetic potential from superior animals and growing it in other animals, thereby dramatically increasing the productive potential of the genetically superior individual.

At birth a heifer's ovaries contain over 200,000 oocytes (ova); no new oocytes are produced during her lifetime. By the time she reaches puberty many of the oocytes will have degenerated and sloughed from her system, a process referred to as atresia. Atresia continues throughout the cow's lifetime but during her lifespan the cow will use less than 1 in 8,000 of the available ova.

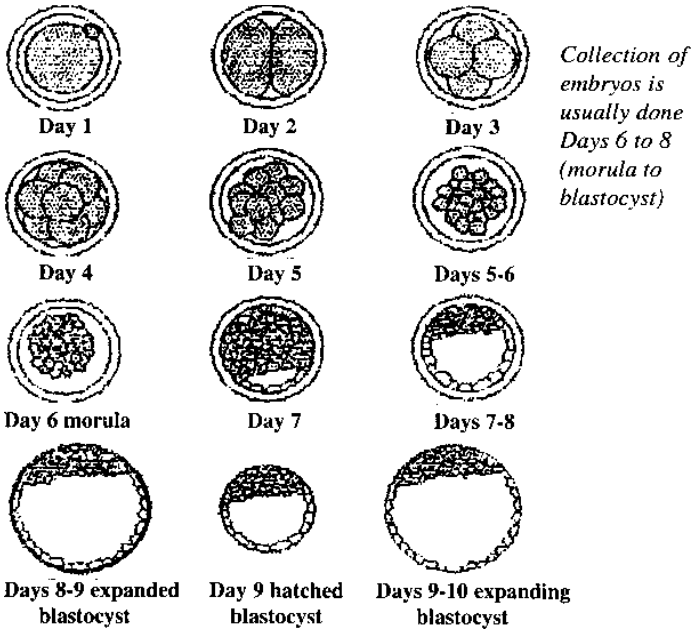
The process of embryo transfer rescues some of this genetic potential by inducing 'superovulation,' the process of treating a female with hormones so that more ova are produced. In cattle superovulation typically results in about 10 ova, 6 of which are recovered as normal (fertilized) embryos. The numbers may vary from 0 to 50 embryos.

An embryo by definition is a fertilized ovum. The donor cow must be successfully inseminated for an embryo transfer to occur. Frozen semen is used because natural service or unfrozen semen is unlikely to be available from top bulls. Artificial insemination reduces the spread of venereal infection and reduces injury to donor cows.

Fertilization rates after insemination of unsuperovulated cows with frozen semen ranges from 85% to 95%. With superovulated cows the rate of fertilization drops to 60% to 80% of ova recovered. The reason for the drop in rate of fertilization is not yet understood.

Studies conducted on the insemination of superovulated cows are based on comparatively small numbers, thus the information is somewhat unreliable. However, the most common recommendation is to inseminate the donor about 12 hours after the beginning of estrus and again 12 hours later, because the first ovulation of superovulated cows occurs sooner after the onset of estrus. It is also recommended that the donor cow be inseminated three times, or inseminated once initially and with a double dose the second time.

Nonsurgical methods for collecting bovine embryos were first developed almost 50 years ago, but because early methods produced poor recovery rates surgical methods continued to be used for many years. Scar tissue associated with surgical methods of collecting embryos caused infertility and even sterility in some animals. Therefore non-surgical methods were improved to avoid damaging valuable donor cattle. Today virtually all embryos are collected non-surgically.



Embryos are generally collected from the donor six to eight days after estrus. At that time nearly all of the embryos have left the oviducts and are located near the tip of the uterine horn where they are accessible for nonsurgical recovery.

To recover embryos non-surgically, a flexible rubber tube (Foley catheter) made rigid with a removable metal stilette is passed through the cervix into the uterus. A balloon two inches from the end of the tube is inflated so that it fits snugly inside the uterus, preventing fluid from escaping. Fluid is then passed through the tube into the uterus, where it expands the uterus to approximately twice its normal diameter, dislodging embryos trapped in folds of the uterine lining. The fluid is drained from the uterus and is captured along with the embryos. Care must be taken to inflate the balloon slowly to avoid rupturing blood vessels in the uterine lining. Similarly, care must be taken to avoid passing liquid into the uterus too quickly.

The amount of liquid required to remove wrinkles or folds from the uterus depends on its size and condition. Usually about 50 milliliters is sufficient; however, ten times that amount may be used. The fluid used for embryo recovery is a salt solution with antibiotics and a blood protein added. The embryos may remain viable in that solution for up to 24 hours, then are graded for quality and may be immediately placed in recipients or frozen to preserve that quality.

Galloway Gestation Table

First column represents date of service. Second column is date due.

Jan		March		May		July		Sept		Nov	
1	Oct 12	1	Dec 10	1	Feb 9	1	Apr 11	1	Jun 12	1	Aug 12
2	Oct 13	2	Dec 11	2	Feb 10	2	Apr 12	2	Jun 13	2	Aug 13
3	Oct 14	3	Dec 12	3	Feb 11	3	Apr 13	3	Jun 14	3	Aug 14
4	Oct 15	4	Dec 13	4	Feb 12	4	Apr 14	4	Jun 15	4	Aug 15
5	Oct 16	5	Dec 14	5	Feb 13	5	Apr 15	5	Jun 16	5	Aug 16
6	Oct 17	6	Dec 15	6	Feb 14	6	Apr 16	6	Jun 17	6	Aug 17
7	Oct 18	7	Dec 16	7	Feb 15	7	Apr 17	7	Jun 18	7	Aug 18
8	Oct 19	8	Dec 17	8	Feb 16	8	Apr 18	8	Jun 19	8	Aug 19
9	Oct 20	9	Dec 18	9	Feb 17	9	Apr 19	9	Jun 20	9	Aug 20
10	Oct 21	10	Dec 19	10	Feb 18	10	Apr 20	10	Jun 21	10	Aug 21
11	Oct 22	11	Dec 20	11	Feb 19	11	Apr 21	11	Jun 22	11	Aug 22
12	Oct 23	12	Dec 21	12	Feb 20	12	Apr 22	12	Jun 23	12	Aug 23
13	Oct 24	13	Dec 22	13	Feb 21	13	Apr 23	13	Jun 24	13	Aug 24
14	Oct 25	14	Dec 23	14	Feb 22	14	Apr 24	14	Jun 25	14	Aug 25
15	Oct 26	15	Dec 24	15	Feb 23	15	Apr 25	15	Jun 26	15	Aug 26
16	Oct 27	16	Dec 25	16	Feb 24	16	Apr 26	16	Jun 27	16	Aug 27
17	Oct 28	17	Dec 26	17	Feb 25	17	Apr 27	17	Jun 28	17	Aug 28
18	Oct 29	18	Dec 27	18	Feb 26	18	Apr 28	18	Jun 29	18	Aug 29
19	Oct 30	19	Dec 28	19	Feb 27	19	Apr 29	19	Jun 30	19	Aug 30
20	Oct 31	20	Dec 29	20	Feb 28	20	Apr 30	20	July 1	20	Aug 31
21	Nov 1	21	Dec 30	21	Mar 1	21	May 1	21	July 2	21	Sept 1
22	Nov 2	22	Dec 31	22	Mar 2	22	May 2	22	July 3	22	Sept 2
23	Nov 3	23	Jan 1	23	Mar 3	23	May 3	23	July 4	23	Sept 3
24	Nov 4	24	Jan 2	24	Mar 4	24	May 4	24	July 5	24	Sept 4
25	Nov 5	25	Jan 3	25	Mar 5	25	May 5	25	July 6	25	Sept 5
26	Nov 6	26	Jan 4	26	Mar 6	26	May 6	26	July 7	26	Sept 6
27	Nov 7	27	Jan 5·	27	Mar 7	27	May 7	27	July 8	27	Sept 7
28	Nov 8	28	Jan 6	28	Mar 8	28	May 8	28	July 9	28	Sept 8
29	Nov 9	29	Jan 7	29	Mar 9	29	May 9	29	July 10	29	Sept 9
30	Nov 10	30	Jan 8	30	Mar 10	30	May 10	30	July 11	30	Sept 10
31	Nov 11	31	Jan 9	31	Mar 11	31	May 11				

Feb		April		June		Aug		Oct		Dec	
1	Nov 12	1	Jan 10	1	Mar 12	1	May 12	1	July 12	1	Sept 11
2	Nov 13	2	Jan 11	2	Mar 13	2	May 13	2	July 13	2	Sept 12
3	Nov 14	3	Jan 12	3	Mar 14	3	May 14	3	July 14	3	Sept 13
4	Nov 15	4	Jan 13	4	Mar 15	4	May 15	4	July 15	4	Sept 14
5	Nov 16	5	Jan 14	5	Mar 16	5	May 16	5	July 16	5	Sept 15
6	Nov 17	6	Jan 15	6	Mar 17	6	May 17	6	July 17	6	Sept 16
7	Nov 18	7	Jan 16	7	Mar 18	7	May 18	7	July 18	7	Sept 17
8	Nov 19	8	Jan 17	8	Mar 19	8	May 19	8	July 19	8	Sept 18
9	Nov 20	9	Jan 18	9	Mar 20	9	May 20	9	July 20	9	Sept 19
10	Nov 21	10	Jan 19	10	Mar 21	10	May 21	10	July 21	10	Sept 20
11	Nov 22	11	Jan 20	11	Mar 22	11	May 22	11	July 22	11	Sept 21
12	Nov 23	12	Jan 21	12	Mar 23	12	May 23	12	July 23	12	Sept 22
13	Nov 24	13	Jan 22	13	Mar 24	13	May 24	13	July 24	13	Sept 23
14	Nov 25	14	Jan 23	14	Mar 25	14	May 25	14	July 25	14	Sept 24
15	Nov 26	15	Jan 24	15	Mar 26	15	May 26	15	July 26	15	Sept 25
16	Nov 27	16	Jan 25	16	Mar 27	16	May 27	16	July 27	16	Sept 26
17	Nov 28	17	Jan 26	17	Mar 28	17	May 28	17	July 28	17	Sept 27
18	Nov 29	18	Jan 27	18	Mar 29	18	May 29	18	July 29	18	Sept 28
19	Nov 30	19	Jan 28	19	Mar 30	19	May 30	19	July 30	19	Sept 29
20	Dec 1	20	Jan 29	20	Mar 31	20	May 31	20	July 31	20	Sept 30
21	Dec2	21	Jan 30	21	April 1	21	June 1	21	Aug 1	21	Oct 1
22	Dee 3	22	Jan 31	22	April 2	22	June 2	22	Aug 2	22	Oct 2
23	Dec 4	23	Feb 1	23	April 3	23	June 3	23	Aug 3	23	Oct 3
24	Dec 5	24	Feb 2	24	April 4	24	June 4	24	Aug 4.	24	Oct 4
25	Dec 6	25	Feb 3	25	April 5	25	June 5	25	Aug 5	25	Oct 5
26	Dec 7	26	Feb 4	26	April 6	26	June 6	26	Aug 6	26	Oct 6
27	Dec 8	27	Feb 5	27	April 7	27	June 7	27	Aug 7	27	Oct 7
28	Dec 9	28	Feb 6	28	April 8	28	June 8	28	Aug 8	28	Oct 8
		29	Feb 7	29	April 9	29	June 9	29	Aug 9	29	Oct 9
		30	Feb 8	30	April 10	30	June 10	30	Aug 10	30	Oct 10
						31	June 11	31	Aug 11	31	Oct 11

When Cows Need Help

The Reproductive Tract

The uterus is made up of left and right horns which join to form the body of the uterus. It provides a suitable environment for the developing fetus and expels it at birth. The lining of the uterus is made up of glandular tissue. The cotyledons of the placenta attach tightly to the caruncles in the uterus and allow an oxygen supply for the calf. The uterus wall is made up of several layers of muscular tissue which strongly contract to expel the calf at birth.

The cervix is three to four inches long and made up of muscular rings. A mucous plug provides a seal between the outside environment and the uterus during pregnancy. At calving the calf's front feet and nose press against the cervix, causing the plug to release and the cervix to dilate, permitting the calf's passage.

The vagina is about fourteen inches long and connects the cervix with the vulva, serving as a passageway for the calf during birth. The umbilical cord usually breaks as the calf passes through the vagina, with approximately half of its body protruding from the vulva. At this time the calf starts breathing, as it no longer obtains oxygen from the cow's blood.

Birthing

The cow prepares to calve by seeking isolation. The best place for calving is a clean, well-drained pasture close enough for you to observe progress without disrupting the cow. The worst location for calving is in an unclean pen or stanchion where the calf may contact disease-causing organisms before it receives any colostrum.

About 24 hours before calving, the hide on each side of the cow's tailhead may sink, due to the relaxation of the ligaments and muscles which allow the calf to pass through the pelvic area with greater ease.

A few hours before calving, the cow may be nervous, get up and lie down frequently, walk with an arched back, leak milk, have a swelling of the vulva and a clear mucous discharge.

Eventually the calf's front feet will appear through the vulva. If the calf is positioned properly, the cow will lie down and give birth. As the calf passes through the vagina the water bag breaks, and contraction of the smooth muscles of the uterus push the calf out into the world.

Normal calving occurs in three steps. The first occurs when the cow strains and the calf's forelegs and head are pushed out to the shoulders. After a few minutes' rest the cow will perform a second strain and push the calf through up to its hips, and a third strain will bring the calf out.

Be sure the calf is breathing and that the mouth and nose are free of mucous. You can clear the calf's nose by inserting a straw in a nostril-reflex action will cause it to snort and blowout any mucous. If it is clogged with fluid you may wish to elevate the rear quarters of the calf, placing the head lower than the body.

Immediately after birth dip or pour a 7 percent iodine solution on the calf's navel cord. Allow the cow to clean the calf by licking, which stimulates breathing and blood circulation.

Difficult Births

A common question is: How long should I wait before examining the cow to determine if a problem exists? The rule-of-thumb is if the feet are showing and no progress is evident after an hour, the cow needs help. Allow closer to two hours for first-calf heifers.

With some abnormal deliveries the feet may not show at all. If the cow shows preparatory signs for about eight hours but does not lie down to calve, an abnormal birth is probable.

If the cow is trying to calve but having difficulty, an experienced person may be able to reach into the birth canal to determine the position of the calf (see illustrations).

Generally if three body parts are present you may be able to deliver the calf yourself. Do not pull unless two forelegs and the head (normal position) or two hind legs and the tail (backward position) are present.

When assisting a normally positioned calf, exert a steady pull on the calf's front legs when the cow strains. Pull downward, not straight out, to conform to the anatomy of the cow's pelvic canal. Pulling chains or a clean rope attached to the calf's legs are helpful when extra traction is needed.

When a calf is backward the rear legs come first. When The hips, the widest part of the calf, come up against the cervix pelvic inlet, the opening may not be big enough for the calf to pass through. You can sometimes help get the hips through by pulling first on one leg and then the other, while another person rotates the calf.

When assisting, do not risk the health and future fertility of the cow by failing to use good hygiene. Properly wash and disinfect the vulva, Wear a sterile, disposable A.I. sleeve, and use a veterinary lubricant to prevent friction damage to tissue.



In this presentation the retained leg must be brought forward joint by joint so the calf can be delivered.



A veterinarian will usually rotate, then deliver backward (hind feed first).



The calf must be rotated and the leg brought forward to assume the normal position for delivery.



If the veterinarian can push the calf back into the cow, he often can bring the head into position.



Veterinarians try to straighten hind legs of calf found in this position, and then deliver backward.



Seriously abnormal position if delivery is *far advanced. May be delivered by Caesarian section or may be dismembered.*

Dealing with Uterine Prolapse

By V.L. Eggleston, D.V.M.

Prolapse of the uterus or 'casting of the calf bed' usually occurs immediately or within a few hours after calving, when the cervix is open and the cow continues to strain or is lying down, especially if the rear quarters are lower than the front quarters.

Prolonged calvings or those requiring great force increase the chances for prolapse. Prolapse is usually complete, and the mass of uterus generally hangs below the hocks of the animal.

Treatment involves removing the placenta (if still attached) and thorough cleaning of the exposed surface. The uterus is then carefully returned to its normal position by the veterinarian.

The treatment or handling of the prolapsed uterus can be made much easier if the owner will wrap the cow's uterus in a wet towel or sheet, or place it in a plastic bag to keep it moist and clean until replaced.

If the cow is standing, the uterus should be elevated and supported level with the vulva until assistance arrives. Elevating the uterus reduces the amount of swelling and may possibly prevent rupture of the uterine blood vessels. If possible, the cow should be in a clean, well-bedded stall with good light. Proper restraint of the animal will aid in the replacement of an everted uterus.

Once the uterus is returned to its normal position, antibiotics are administered to control infection and a suture is placed in the vulva to prevent the prolapse from reoccurring. The prognosis depends on the amount of injury, the length of time the uterus has been prolapsed and the degree of contamination of the uterus. Prompt replacement of a clean, minimally traumatized uterus allows a favorable prognosis.

Complications tend to develop when laceration or damage occurs, or when treatment is delayed. In some instances the bladder or intestines may prolapse into the everted uterus, requiring replacement before replacement of the uterus. In severe cases, amputation of the uterus may be indicated to save the animal. Animals that prolapse will show a greater tendency toward breeding problems and recurrence of the prolapse at future calvings.

Typical owner follow-up includes removal of the sutures within 24 to 48 hours and a schedule of antibiotic therapy.

Prolapse of the uterus should not be confused with prolapse of the vagina (a condition that usually occurs before calving in the heavily pregnant cow) while uterine prolapse can only occur after calving. The vaginal prolapse is a pink mass of tissue about the size of a large grapefruit or volleyball.

Non-Infectious Reproductive Problems

Infertility and sterility are widely used terms. Infertility is a condition in which the reproductive ability of the animal is well below average but not completely lost. Sterility means that the reproductive ability is completely lost, either temporarily or permanently.

Nutritional Factors

Inadequate intake of nutrients necessary to cattle (energy, protein, minerals, vitamins or water) may result in lowered fertility. Excessive conditioning (over-feeding) is just as likely to result in low fertility or sterility in bulls and cows, as well as complications at calving time.

These problems show up as reduced calving percentages, difficulty in settling, weak calves at birth, lowered resistance to disease, reduced milk production and retarded growth. A cow receiving inadequate rations during the first third of gestation will usually show signs of nutritional deficiency before the fetus is affected. During the last third of pregnancy the fetus and dam compete more equally for nutrients, and the fetus may be harmed without the cow exhibiting extreme signs of deficiency.

Hereditary Abnormalities

Hereditary abnormalities affecting reproductive ability are those passed genetically from parent to offspring. Some may be detectable at birth while others may not appear until later in development.

CRYPTORCHIDISM is a condition in which one or both testes remain in the abdominal cavity. Sperm will not be produced normally at body temperature. Cryptorchidism, if bilateral, results in sterility. If unilateral (Monorchidism) it's usually characterized by reduced sperm cell count. Bulls with this heritable defect should not be used for breeding purposes.

SCROTAL HERNIA is first noticed as an enlargement of the upper part of the scrotum caused by intestines passing into the inguinal canal and scrotum. A bull mounting a cow throws the weight of the intestines against the inguinal region. The testicle on the side of the hernia usually is less functional because of increased pressure from the intestines and elevated temperatures resulting from the large opening into the abdominal cavity.

DEFECTIVE PENIS DEVELOPMENT may result in inability to protrude the penis from the sheath. Abnormal sheaths and curvature or deviation of the penis may be genetically conditioned.

FREEMARTINS, sterile heifers born twin to a bull calf, occur in about 94 percent of opposite-sex bovine twins. In the freemartin the external opening of the female tract sometimes appears normal, but frequently resembles that of the male. Generally the vagina, uterus and fallopian tubes are smaller in length and width than normal.

OVARIAN HYPOPLASIA involves ovaries that fail to develop completely. In some animals with this condition the ovaries are difficult to locate. If both ovaries are involved, the entire genital tract will remain small and the heifer will not come into heat. Ovarian hypoplasia

should be differentiated from ovaries which are nonfunctional due to nutritional deficiencies or other temporary conditions.

VISIBLE ABNORMALITIES that cause breeding difficulty, such as structural unsoundness of feet and legs, should be cause for rejecting a bull or heifer for breeding purposes.

Injuries

The bull may suffer bruises or lacerations to the penis or testes, resulting in temporary or permanent sterility. Removing hazards such as downed fences from the pastures helps prevent such injuries. Injury or damage to the penis may occur at breeding, particularly if the cow goes down under the bull's weight. A bull so injured will arch his back, walk stiffly and develop a swelling just ahead of the scrotum. Surgical treatment undertaken early may correct the condition.

All bulls that have reached puberty should periodically have their penis examined for hair rings. Hair rings can generally by observed during erection by the appearance of a dark ring encircling the penis located anywhere from close to the tip to halfway up to the base. If identified, a veterinarian should be consulted to determine the best course of action to remove the hair ring.

In the cow injuries that affect reproductive ability are most likely to occur at breeding or calving. Service by a large or too-vigorous bull as well as manual examination or artificial insemination without proper restraint, or by inexperienced personnel, may cause permanent damage. Injuries or infections acquired during a difficult calving may lead to infertility problems. Forced extraction may result in delivery of some large calves - but nothing is gained if the cow is paralyzed and the calf dies. At times a Caesarean section may be required.

If the placenta is not expelled within 48 hours after parturition, the veterinarian should be notified. Inflammation and infection of the uterus usually accompanies retention of the placenta. Early forced removal of the placenta may allow the infection to enter the bloodstream, whereas proper removal and antibiotic treatment generally allows normal conception in the future.

Hormonal Disturbances

Cystic follicles in the cow are not uncommon, and are generally due to hormonal imbalances. In this condition, large cysts form on the ovary. Frequently a lack of luteinizing activity accompanies the cystic formation and the cow does not ovulate. Cows experiencing cystic ovaries may exhibit either nymphomania (almost constantly in heat) or anestrus (absence of heat). The condition is detectable by the veterinarian's rectal palpation, and is generally correctable using gonadotropin releasing hormone (GnRH) and/or prostaglandin.

The secretion of hormones by the pituitary and other glands in the reproductive tract are necessary for maintenance of the bull's sperm production and sexual drive. Hormonal imbalances are uncommon in the bull, but if reduction or cessation of breeding activity is noted, it's a factor to consider.

Foot and Hoof Care

By Robert Stimson, West Rutland, VT

Not every cow that limps has foot rot!

Feet can be a problem in breeding bulls and cows in some herds, depending upon soil compositions around the country. We have found different effects on our own farm -- one pasture being clay and the others limestone and sandy soil.

When toes get long the animal has tendency to walk on its heel, causing cracks in the heel which can become infected. An infection between hoof and heel can cause the hoof to separate to the point that it can be lost.

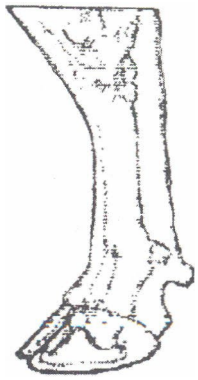
Hooves that are long and splayed between the toes can suffer irritation that may cause corns. These can be treated with Koper-Tox but often requires removal by a veterinarian.

Sore back feet on breeding bulls can have a direct effect on their mounting ability. Less well-known is the fact that sore feet can also affect semen quality! When a bull is hurting he has a tendency to pull his testicles up, with body heat adversely affecting sperm quality and quantity.

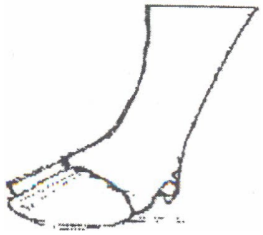
Even a young animal can be encouraged to walk properly with a little hoof trimming. We recommend a visual inspection of the total herd annually, and in the interim checking any individual that is walking
improperly.

Hoof care specialists are available in most areas. They may be engaged to work on your premises, bringing trimming chutes and tools. Some veterinarians are willing to assist with hoof care, also -- ask yours.

Illustrated at right, proper stance.



Below, an example of 'down on heel. '



Keeping Proper Herd Records

The newcomer to cattle husbandry hears often that good records are a must. But sometimes it takes a little research to learn what to record. Here's a sample form that is adequate and is available online under 'Records' at www.beltie.org. You may use it as a guide to design your own, or more comprehensive forms that are not difficult to use may be obtained from your county extension agent.

In general, you'll want to record the calf production for each cow, make notations on calving ease or difficulty, and keep track of health issues and immunizations.

You will want to record the birth date and weight of each calf. The calf's weight should be recorded again at 205 days of age, and at 365 days. Weighing may be accomplished with a scale or by measuring the heart girth with a tape marked to indicate the beef animal's approximate weight.

Calving ease is indicated by:

1--No difficulty, no assistance. 2--Minor difficulty, some assistance. 3--Major difficulty, pulling required. 4--Caesarian birth. 5--Abnormal birth.

The cow's condition score is indicated by: 1-2 -- Very thin. 3-4 -- Thin. 5-6 – Good condition. 7-8 – Over-conditioned. 9 – Significantly over-conditioned.

Identification Record									
		Calf birth record					Weaning		
Dam #	Sire #	Calf #	Birth date	Birth wt.	Sex	Calv. Ease	Date	Wt.	Comments

Adjusted Weights

To calculate adjusted 205-day weight, first determine the average daily gain (ADG) by subtracting the birth weight from current weight and dividing by days of age. Multiply the ADG by 205, and then re-add the birth weight. Adjust as follows:

If dam is ...	add for Male calf	add for Female calf
2 yrs. old	+ 60 lbs.	+ 54lbs.
3 yrs. old	+ 40 lbs.	+ 361bs.
4 yrs. old	+ 20 lbs.	+ 18 lbs.
5 to 10 yrs.	0	0
11 yrs. or over	+ 20 lbs.	+ 18lbs.

You now have an adjusted 205-day weight.

To calculate weight ratios, divide the individual's adjusted 205-day weight by the group of contemporaries' average adjusted weight, then multiply by 100.

Defining EPDs

Expected progeny differences (EPDs) express the genetic transmitting ability of a sire. EPDs are expressed as plus or minus values. For instance, an EPD of +70 lbs. for yearling weight indicates that progeny of this bull should average 70 lbs. more at 365 days of age than progeny of an average bull of the breed.

Sire summaries usually include EPDs for birth weight, weaning weight and yearling weight. They may also include MBVs, which summarize Maternal Breeding Values for the bull's daughters.

You may obtain EPD data on your animals by sending them to a bull test station (learn more about this from your county extension agent), or you may enter a CHAPS program (Cow Herd Appraisal Program Software), paying nominal fees for summary printouts. A number of Beltie herds are enrolled in the Maine Beef Producers' CHAPS program.

Other acronyms you may encounter are EBV (Estimated Breeding Value) which is determined by trait heritability (genotype) plus production records from the individual and his or her relatives, weighted according to their genetic relationships.

MPPA stands for Most Probable Producing Ability -- which you may learn from EPDs and MBVs or EBVs.

Tattooing

The Society's rules since January, 1996 have required that all Belted Galloways be tattooed in the left ear (or, optionally, both ears) before registration or recordation.

Society members must first record with the registering agency a farm or ranch designation of up to three characters, which may be placed at the beginning or end of a single line tattoo, or may appear in another location in the same ear.

Year of the calf's birth will be designated by an alpha character (C for 2015, D for 2016) and will appear first or last in the tattoo string (at opposite end from farm designation).

Up to three numerals shall be placed in the middle of the string.

Some breeders sequentially number their calves beginning each year, others continue the numbering year-to-year. Either way, no two calves may be given identical tattoos.

Legible Tattoos

Breeders may request their veterinarians to apply the tattoo, or may purchase equipment to perform their own tattooing. Many tattoo calves the day they are born, others wait until the herd is being 'worked,' though it should be noted that it is important to properly identify the calf before it leaves the cow.

Your tattoo kit should include a clamp or gun, letters, numbers, bottle of rubbing alcohol, old toothbrush, clean soft rag, preferably green tattoo ink, pair of curved scissors, and a tattoo book or ledger. Disinfect your tattoo set with alcohol or disinfectant between usages to avoid transmitting wart viruses.

To produce a legible tattoo first be sure the calf is held securely then clip the hair inside the ear, clean away wax with a soft cloth dampened with rubbing alcohol. Apply tattoo ink before clamping the tattoo gun firmly into the inner area of the ear in the upper or middle lobe. Immediately after releasing the clamp, rub ink generously into the impressions with an old toothbrush.

Equipment

Illustrated are typical tattoo holders, referred to as 'guns,' 'clamps,' or 'forceps.' The tool in the middle below holds two rows of four tattoo characters; the one on the right has six characters in one line. A similar 'rotating' tool works like a date stamp, but is considerably more expensive. Tools are available in sizes holding four to eight characters, and generally are

shipped with tattoo digits 0 to 9. Additional alpha characters and duplicate digits may be purchased separately.







At left above is a typical tattoo character, this one representing 'K'. This can be commonly purchased in 5/16" or 3/8" size.

Ink is available in bottles or tubes, and generally is black or green. Green is recommended for Belted Galloways.

Suppliers

Most farm supply stores such as Southern States or Farm & Fleet carry tattoo outfits, usually in four or five-character single lines which are suitable if your tattoo combination is, for example,

P1AB or P01AB

Nasco Farm & Ranch catalog lists tools which hold four or five characters as well as a more costly rotary tool for four or five characters. All are one-line tattoo tools. Request Nasco's catalog by phoning (800) 558-9595. The NASCO catalog can also be viewed online.

If your tattoo string is longer or requires two lines, then you may wish to request a catalog from Ketchum Manufacturing Sales, Ltd. in Ottawa, CAN by phoning (800) 222-0460. Ketchum's tools are available with single lines up to six characters, or two lines of four characters.

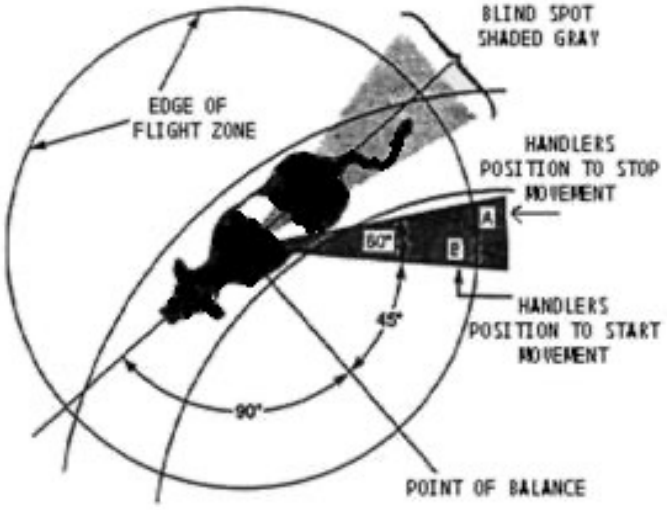
Handling Cattle

Stress

An understanding of bovine psychology combined with well-designed facilities reduces handling stress on your cattle which is important because stress can lower an animal's ability to fight disease and can cause weight loss. Stress can also negatively affect rumen function and reproduction.

Cattle have long memories. If not handled quietly and carefully they will be difficult to work with in the future. An old farmer's maxim states, "You can tell what kind of stockman a person is by watching his cattle's behavior." The bottom line: No whooping, hollering or chasing!

Cattle have wide-angle vision and can see nearly every direction except directly behind them. Animals in a group prefer to maintain visual contact with each other and become agitated when segregated from the herd.



Understanding the 'flight zone' -- a cow's personal space -- is the key to easy, quiet handling. When you penetrate the flight zone, the animal will move. When you retreat, the animal stops.

Size of the flight zone is determined by several factors such as wildness or tameness and the angle of the handler's approach. The flight zone is larger when a handler approaches head-on, smaller when the animal is confined in a single-file chute. A cow passing you has a smaller flight zone; it increases if she becomes excited. Cattle can be easily moved by working on the edge of the flight zone -- close enough to make the animal move but not so close as to cause panic. If the cattle begin moving too fast, back off and get out of the flight zone.

When cattle are worked in an enclosed space care must be taken to avoid deeply penetrating the flight zone, resulting in panic, jumped fences, and cattle turning back on the handler. If cattle back or rear up in a chute, retreat from the flight zone and permit them to settle back down.

To move an animal forward you must be behind its point of balance; moving in front of this point will make the animal go backward. Avoid working into the blind spot, which generally causes the animal to stop and turn to watch you. In close quarters working the blind spot may earn you a kick.

Cattle have poor depth perception when moving with their heads up; this is why they balk at shadows and strange objects on the ground. A shadow across a scale or chute can disrupt handling -- the lead animal may balk, halting the whole herd.

Cattle have a tendency to move toward the light, though the best loading chutes face north or south as livestock may balk if they have to look directly into the sun. Persuading cattle to enter a dark chute from a bright outdoor crowding pen is often difficult. It's easier to drive them into the shaded area if they are first forced into single file by extending the chute 10 to 15 feet outside the building.

Livestock balk if a chute appears to be a dead end. Slatted end gates they can see through are helpful. A curved chute works better than a straight chute, as each animal tends to follow the leader and is less likely to become aware of the truck, squeeze chute or handlers at the end.

Fences

When building or replacing fences first consideration should be given to a well-built boundary fence. Layout fence rows as straight as possible, then locate necessary lanes and gates. Gate placement is important for animal movement -- never locate a gate in the middle of a fence line with no way to 'funnel' cattle toward it.

It's important to keep in mind the shape of pastures. Rectangular or square are the most efficient because the animals forage with a minimum of trampling damage; in addition the areas can be subdivided with less trouble. Pie-shaped arrangements are sometimes used to give animals access to a central water source, but cattle tend to overgraze and trample the area closest to the water.

Most common types of wire fencing are woven, barbed, high tensile or electric. Board fences are most likely to be required in corrals where cattle are closely confined and subject the fence to strong pressures.

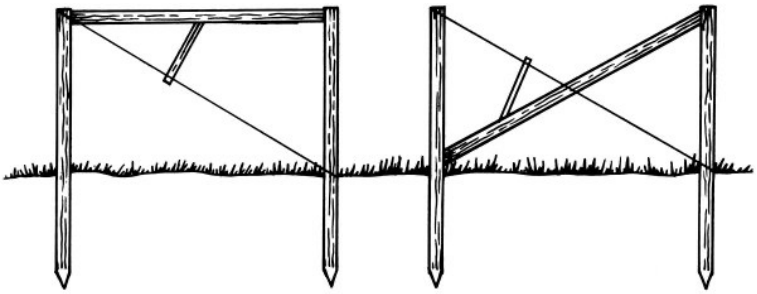
For temporary installations, electrified braided polywire is popular. This contains very fine gauge steel wire braided with polyethylene strands into wire, ribbon or tape. These fences are installed with very little tension. Once cattle have been trained to respect electric fencing, these give good results for interior fences.

New Zealand-type high tensile smooth wire is commonly used for permanent electric fence. For a boundary fence a minimum of five wires is suggested, with three of those wires electrified.

Adequate fence construction includes setting corner posts, constructing fence braces, stretching fence and driving staples. Corner and end-post assemblies are the foundation of the fence. Adequate horizontal or diagonal bracing for fence lengths to 165 ft. (10 rods) are single-span assemblies. Use double span assemblies for fences to 660 ft. (40 rods). Stretches longer than 40 rods will require braced line posts.

Staple length and diameter as well as type of post all affect the holding power. For treated posts, use 1-3/4" 9-gauge galvanized staples with slash-cut points. String wire on the cattle's side of the fence.

Horizontal and diagonal single span braces. Pull is to the left.



Pens and Chutes

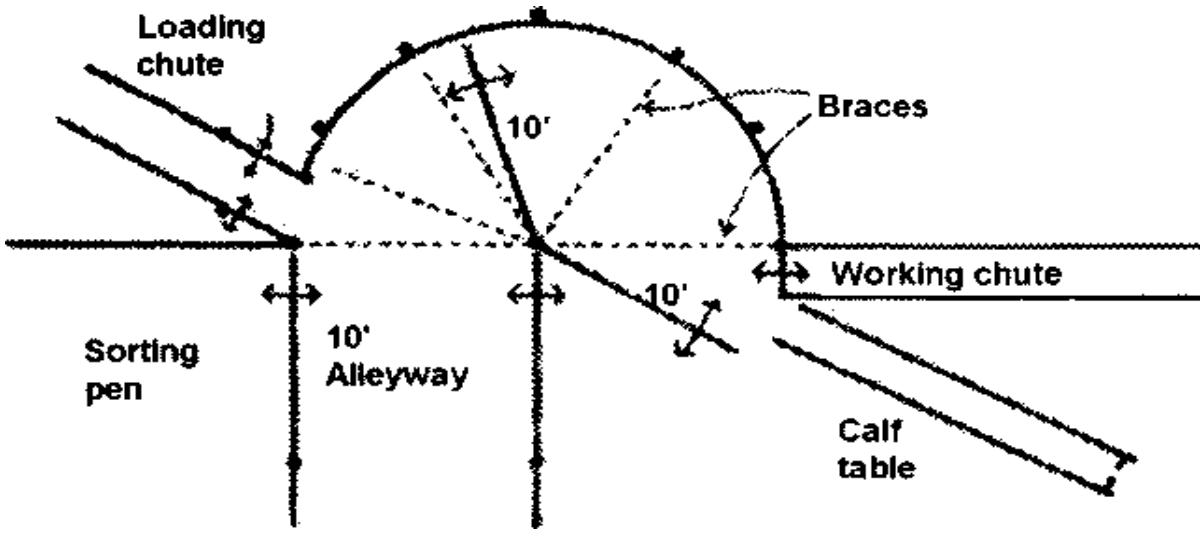
Typical components of a cattle handling facility are a holding pen or corral, crowding pen, working chute, squeeze chute or headgate, loading chute and scales. Recommended dimensions for these follow:

Holding Area	space per cow space per calf	20 sq. ft. 14 sq. ft.
Crowding Pen	space per cow space per calf	12 sq. ft. 6 sq. ft.
Working Chute Vertical Sides	width minimum length	28-30 in. 20 ft.
Working Chute Sloping Slides	width bottom inside clear width at 4" height inside clear minimum length	18-20 in. 30-33 in. 20 ft.
Working Chute Fence	minimum height depth of posts in ground	50 in. 30 in.
Corral Fence	recommended height min. depth of posts in ground	60-66 in. 36 in.
Loading Chute	width minimum length rise	26.-30 in. 12 ft. 3-1/2" per ft.
LOADING RAMP HEIGHTS		
Stock trailer, 15"	Pickup, 28"	Stock truck, 40" Tractor-trailer, 48"

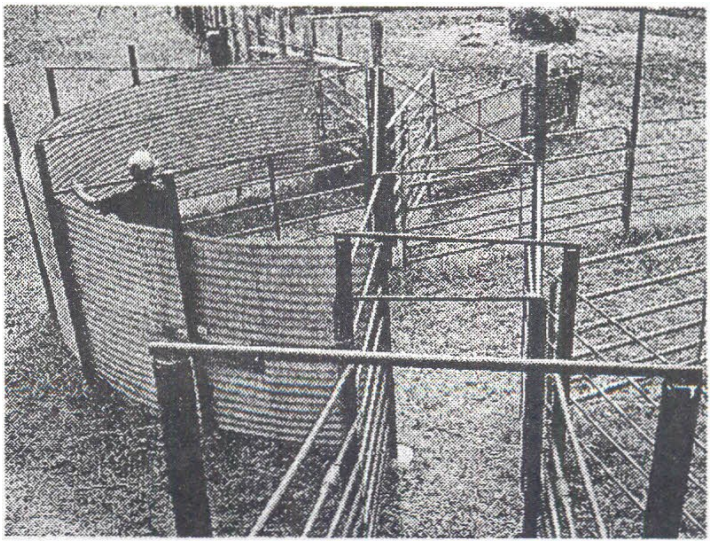
Low-Cost Two-Man Corral

There's nothing fancy about this cattle working setup, but it works, and doesn't cost very much. Virtually all of the materials can be picked up at salvage- prices.

The centerpiece of the arrangement is a half-circle tub at the end of a lO-foot alleyway. The person operating the gate in the tub can cut animals three ways -- into the loading chute, into a working chute equipped with a portable headgate, or into a portable calf chute set at a 45-degree angle to the main working chute. Bulls can be worked inside the tub by clamping them between two gates.



The half-circle tub is formed from two bottom rings of an old grain bin, braced by posts. Posts are pipes 3 inches in diameter set 3 feet deep in concrete. Corrals are made from l-Inch rebar or 'sucker rod' (cheaper and more durable than wood) fastened with 3/16 x 1" metal clips welded to the posts. Note, sucker rod should not be welded directly to the posts because it contracts in cold temperatures which could break the welds.



The gate in the tub hangs from a 12-foot high post 6" in diameter anchored in 3 feet of concrete. The center post is braced by overhead pipes connected to the posts that form the half-circle.

Belted Galloway Selection Guide



Introduction

This selection guide is intended to assist cattle breeders and buyers in selecting quality Belted Galloways. Its use in competitive show situations is also encouraged as a guide for judges. This guide is not intended as a basis for registration, as the Belted Galloway Society already has well-established criteria for breed registration. Statistical information is provided as a benchmark only. Few, if any individual animals will match all the characteristics listed.

Visual Characteristics

Coloration: Cattle can be black, red or dun in color. A complete belt should encircle the midsection of the body, between the front and rear legs. However, the shape of the belt should not be a factor in judging. It is preferred that no other white be visible, though females that exhibit white above the hooves, that does not extend above the dewclaws, can be registered in the Herd Book. Black coated cattle commonly exhibit a brownish tinge to the outer coat, which is acceptable.

Skin and Hair Coat: Skin should be moderately thick. Hair coat should have two layers, a short undercoat covered by a long shaggy coat that protects the animal. Belted Galloways do not require large amounts of back fat for winter warmth, which results in relatively lower winter feed requirements. Hard, wiry hair with no undercoat is objectionable. Clipping and grooming hair for competitive shows is an acceptable practice.

Size: Cattle should be moderate in size, with both excessive and diminished sizes being objectionable. Balance and conformation should be considered before mature weight.

Head: The head should be broad with the poll low and flat (especially bulls). The nostrils should be wide and the eyes large and prominent. The ears should be moderate in length, broad and pointing forward and upward, with a fringe of long hair. The breed is polled, with no evidence of horn or scur development.

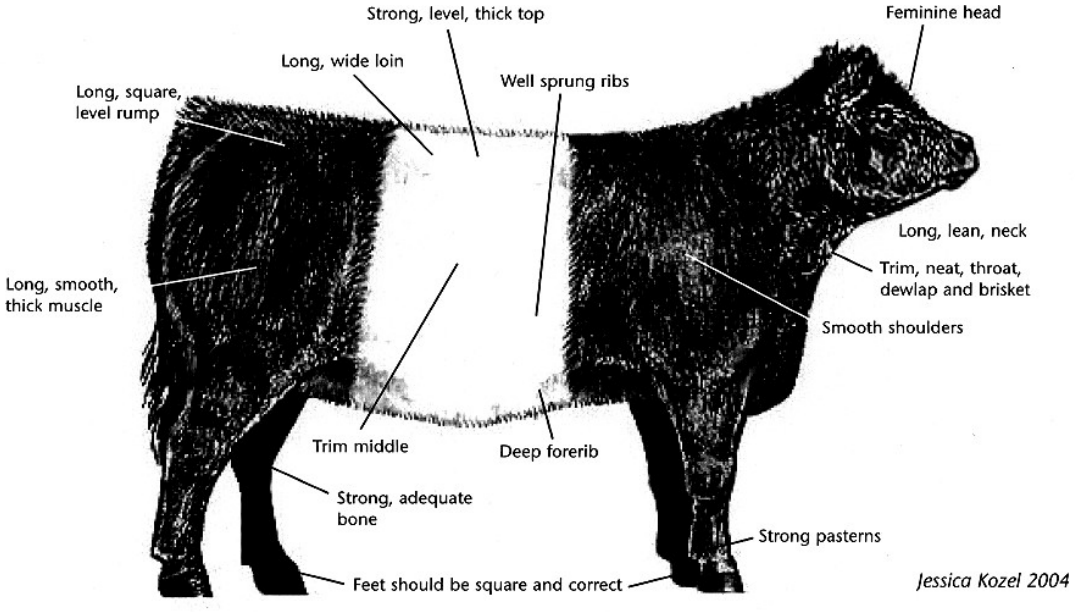
Neck: The neck should be proportionate in length and well attached, fitting smoothly onto the shoulders. Mature bulls may develop some cresting, but this should not be excessive. Cresting is objectionable in cows. Cows are preferred to be free of excessive or loose skin under their throats and should be slender about their necks.

Forequarters: The forequarters should exhibit meatiness across the forearm. Shoulders should be moderately sloped, refined and blend smoothly into the rest of the body. The brisket should be moderately well developed, but more so in bulls. The dewlap should be trim and nearly free of loose skin.

Body: The body should be long sided with a strong and straight top line and underline. The rib cage should be deep and well sprung, into a round chest, not compressed side to side. The rump should be level and the hindquarters should be well muscled. The tail head should blend smoothly into the rump. The animal should appear balanced and proportionally developed throughout.

Hindquarters: The hindquarters should exhibit meatiness by having good length from hooks to pin bone, from the hook bone to hock and pin bone to stifle. Hindquarter muscling and width should carry well below the stifle.

What to Look for in a Desirable Female



Females: Should appear feminine, coarseness of head, neck and shoulders is objectionable. Females should display good width of pelvis to facilitate ease in calving. This pelvis width development should be obvious when viewed from the rear. The udder should display only four developed teats of even size and symmetrical placement. In heifers, teats should be small and not overly wide. Mature cows should exhibit sufficient udder development to facilitate milk production, but the udder should not be pendulous or loosely attached to the body. Heifers should attain two-thirds of mature size before breeding. Example: If an animal's expected mature weight is 1000 lbs., then she should be bred at 650 lbs. or over.

Evaluating the Udder

It is difficult to determine what a heifer's udder will look like at maturity, but there are indicators that will provide you with some clues. Teat size and placement are important, as are the overall balance and symmetry of the udder. Problems evident in a heifer's udder will be magnified after calving, so it's important to be critical to avoid having to cull an unproductive or unsound udder post calving.



GOOD: A cow's udder should have moderately sized teats, placed in the center of four well-balanced quarters.

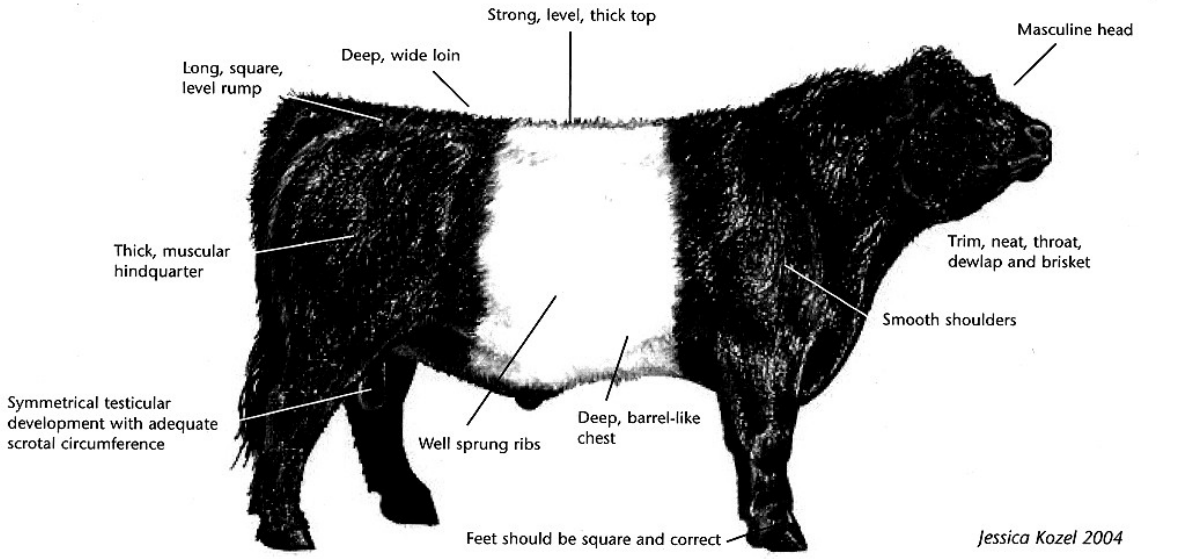
BAD: Teats too fat, could be difficult for a calf to nurse.

BAD: Teats too long, more susceptible to injury.

BAD: Udder under-balanced, may be an indication of less productive quarters.

Jessica Kozel 2004

What to Look for in a Desirable Male



Males: Should appear masculine. Older bulls may naturally shift weight development forward as they age, but should not appear weighted excessively in the neck and shoulders. Preputial sheath should be trim and fit close to the abdomen. Pendulous, poorly attached sheaths should be discouraged. There should be no evidence of swelling, injury or asymmetry of the penis.

Testicles should be large and nearly symmetrically developed. Scrotum should be of large circumference, should display a definite neck and should show comparmentalization between sides (see diagram). Scrotal circumference should be at least 32 centimeters, preferably 34 centimeters at one year of age. There is strong correlation between scrotal circumference and the fertility of the bull's daughters (as measured by earliness of puberty). Bulls should have a deep, barrel-like chest, with a long body, a deep, wide loin muscle and be thick and muscular. He should have a strong libido (sex drive) and seek out and breed cows in heat.

Scrotal Shape and Circumference

A normal scrotum (Figure 1, center) is pear-shaped with an obvious neck, and should have a minimal circumference of 32-34 cm at one year of age. Straight sided or v-shaped scrotums are undesirable.

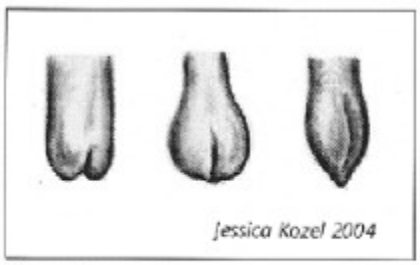
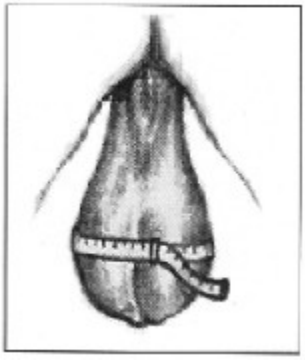


Figure 1

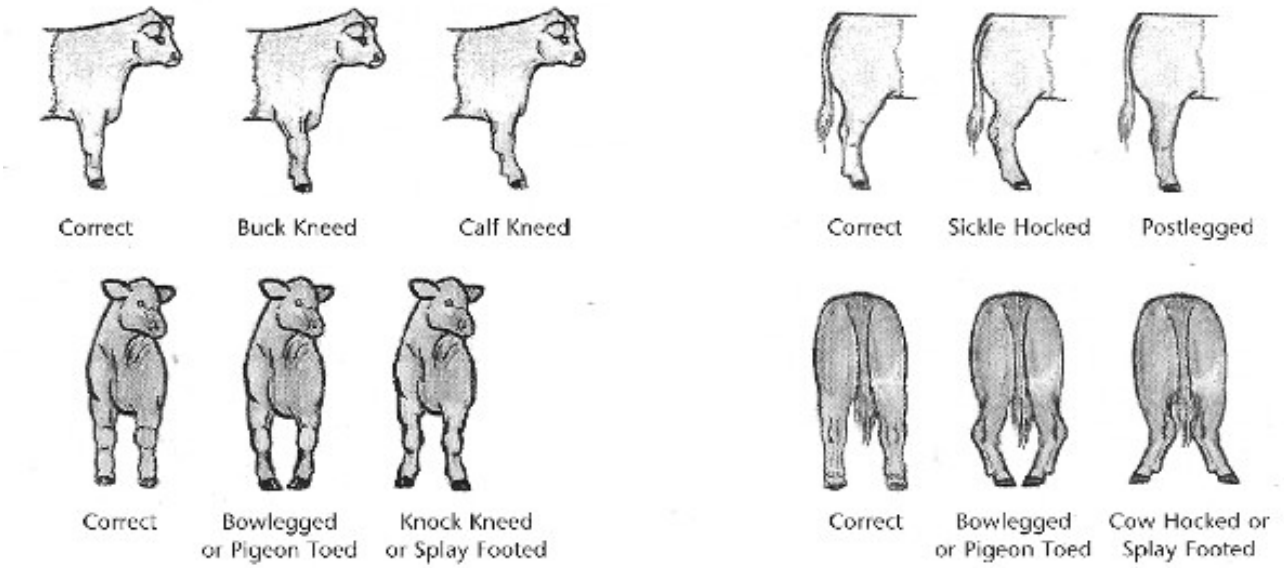


Weights: The weight of cattle will vary from region to region, with genetics, environment, and management practices being major factors in determining the outcome. The following data represents a majority of animals, however, excellent animals can be found outside these ranges. Heifer calves at birth range from 60-70 lbs. Mature cows range from 1000-1400 lbs. Bull calves range from 70-80 lbs. Mature bulls range from 1600-2000 lbs.

Legs and Feet

The legs should have strong pasterns. Hooves should be shaped well, not long or cracked, without corns between the toes. Both fore and rear legs should dislay foot placement that distributes weight evenly or on all aspects of the hooves. The feet should strike the ground evenly when walking, with the front hooves directed straight forward and the rear hooves directed slightly outward. To determine length of stride, an ideal animal's back foot will land in the same track where their front foot took off: livestock judges refer to this as "covering their tracks." Leg bones should be moderately short, providing sufficient support to bear the animal's weight. Leg length should be moderately short in keeping with the traditional appearance of the breed.

Viewed from the side, hind legs should not be overly straight (post legs), or too angular (sickle hocked). Viewed from the front and rear, legs should be set far enough apart to allow sufficient heart, lung and body capacity. Viewed from the rear, hind legs should be nearly parallel from hocks to hooves, with a little set to the hind legs -- they should not be too straight. (See drawings for desired conformation.)



Other Desirable Breed Characteristics

Disposition/Behavior: Belted Galloways should be of a calm and quiet disposition. They should not exhibit panic when approached, which can be determined by ears perking, excessively alert eyes, and frequent defecation. They should not exhibit aggressive behavior toward humans, even when penned.

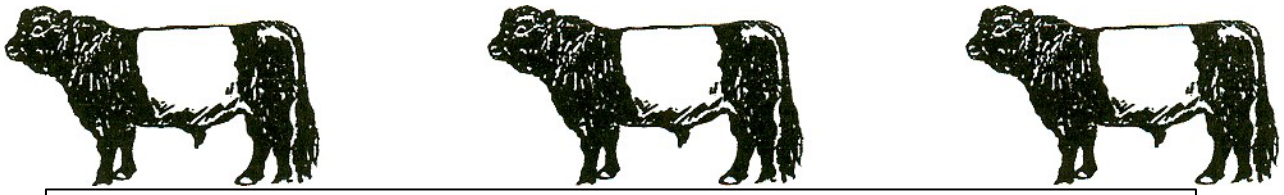
Maternal Characteristics: Cows should calve easily without assistance. They should exhibit immediate care of the newborn calf, and neither abandon nor surrender the calf. Protection of the calf in moderation is desirable, excessive protectiveness is helpful when cattle are in the "wild" but not within confined arrangement, as it may be dangerous. Cows should be rebred 90 days after calving.

Milk Production: Cows should produce sufficient milk for rapid development of calf. Udder and teats should appear symmetrical and healthy during lactation.

Foraging Characteristics: Cattle should feed aggressively on available pasture and utilize not only grass but also appropriate non-grass species when available.

Meatiness: Cows should produce offspring with finished carcass weights of 60-62% of their live weights. Carcass weights should be Choice or better.

Hardiness: Cattle should require minimal health care throughout life, be resistant to parasites and be able to "survive" on limited nutrients. They should adapt to environments of marked heat or cold with minimal stress, weight loss, or interruption of reproduction. They should remain active and vigorous well into their teens.



Purchasing a Belted Galloway Bull
Questions to Ask

Intended Use:

Before selecting a Belted Galloway herd sire, you should determine the areas where you're herd needs improvement and select a bull that would best meet those needs. Your handling facilities, the acreage available, type of feeding system (pasture vs. feedlot), the type of fencing, and your knowledge level of animal husbandry can all be factors in deciding the best bull to use. The bull's size or potential size, temperament, and his genetic background are all important in the selection process. Once you have considered these factors you can select the questions below that are relevant to your intended use.

Physical Inspection:

Conformation - Is he structurally correct? (See Selection Guide for Belted Galloways.)

Size - Is he average or above average according to the BGS structure guide? Is he an appropriate size for your females? What is his actual weight? What was his weight at one year?

Muscle - Is he adequately muscled in the forequarters and hindquarters?

Shoulders - Are his shoulders slightly narrower than his hindquarters? Wide shoulders may result in calving difficulties.

Head - Does he have a masculine head? The head should be medium length with a wide muzzle and bold bright eyes.

Feet - Are his feet, legs, and hooves structurally sound? Has he needed regular hoof trimming? When he walks his hind feet should fall in the tracks made by the front feet. A bull cannot locate and service cows unless his feet and legs are sound. Cracked hooves, corns and long hooves also slow the breeding ability of bulls.

Disposition - Is he good-natured, aggressive, or protective? Is he docile and calm? How does he react to being handled in close quarters? Is he electric fence trained? How does he interact with other members of the herd? If you walk up to him, what does he do? Observe him in a field and how he interacts with strangers.

If possible, observe his sire, dam and calves he has sired.

Tattoo - Does he have a tattoo and does it match the tattoo on his registration papers? All Belties are REQUIRED to have a tattoo in their left ear for registration. It would be wise to run him through a chute and verify the tattoo. Obtain a copy of his registration papers.

Breeding Soundness:

Does the bull have a clean sheath? The sheath should not be overly pendulous or poorly attached. Has he ever had hair rings, or been checked for them? Are his testicles of adequate size and well shaped? Have his testicles been measured? If so, at what age (12 to 14 months is optimal), and what was their circumference? Research has shown that bulls with larger testicles tend to sire heifers that reach puberty at a younger age. Examine bulls in Northern areas for frostbitten or frozen scrotums.

Has he been semen tested? If so, how recent was the semen test and what where the results? If you plan to collect, store or ship semen from this bull, ask if the semen test included freezing and thawing the semen. Does the seller plan to retain any semen rights? If not semen tested, will the seller guarantee that he will breed?

Does he have a strong libido (sex drive) to seek out and breed cows in heat? Has he settled cows and heifers within 60 days of being exposed to them? If a bull isn't very fertile, his daughters may not be very fertile either. How large a herd has he covered?

Genetics and Health:

When buying a young bull that has not yet sired calves, ask about the production history of his dam. (See also -- Purchasing a Belted Galloway Cow - Questions to Ask.) Ask about the breeding record of his sire.

What was this bull's birth weight, weaning and yearling weight?

How many calves has he sired? What were their birth weights and rate of gain? How have they been marked? Has he sired any calves with incomplete belts or white feet? Did the cows he was bred to have calving difficulty? If so, what were the circumstances?

Have any undesirable genetic traits appeared in calves from his sire or dam, or in his calves?

Few animals are perfect. Will his strengths complement the females in your herd? How have his bloodlines crossed with those of your cows?

Is his dam a heavy milker? If so, his daughters should be heavy milkers.

What routine vaccinations, worming and veterinary care has he received? Has he ever been injured or ill? Will a health certificate be provided? (This is required if he is to be transported out of state.)

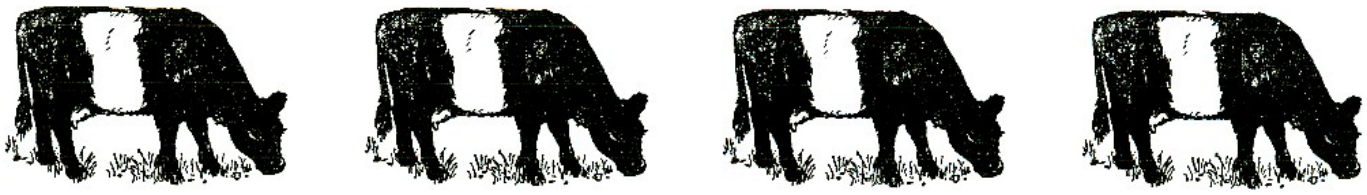
Does he keep flesh and condition with proper nutrition? Is he primarily on grass, or is he usually grain fed? If he has been grain fed, how much per day? Does he maintain his weight during breeding season?

Has he been sheltered during the summer or winter? Feed and environment can affect his condition and performance.

Terms of Sale:

Ask if he is sold "as is" or with a breeding or soundness guarantee. See the Belted Galloway Handbook, Section V. for suggested terms of sale. If there is a guarantee, be sure there is a mutual understanding of what will occur if the animal does not meet the requirements of the guarantee. Ask for all terms of the sale in writing.

For additional information about Belted Galloways, visit: www.beltie.org.



Purchasing a Belted Galloway Cow
Questions to Ask

Intended Use:

Before selecting females for your Belted Galloway herd, you should determine your primary goals in raising Belted Galloways and select females that would work best toward meeting those goals. Will it be for beef production, showing, selling breeding stock, or just attractive animals to have around? Will they be grass fed or supplemented with grain? Will you be able to monitor your animals closely, or should they be able to fend for themselves? What is your knowledge level of animal husbandry? How do you intend to market your cattle? Once you know the answers to these questions, you can select the questions below that are relevant to your intended use.

Physical Inspection:

Conformation - Is she structurally correct? (See Selection Guide for Belted Galloways.)

Capacity -- Does she have a large pelvic area with adequate body capacity for growth and carrying a calf?

Productive udder -- Does she have four evenly spaced, acceptably sized teats?

Feet -- Are her feet, legs and hooves structurally sound? Has she needed regular hoof trimming?

Disposition - Is she calm, quiet and alert? How does she respond to human contact? Is she halter broke? Does she respect fences? Is she electric fence trained? How does she interact with other members of the herd? Is she aggressive, or reluctant to challenge others for feed?

If possible, observe her other calves, and if she is bred, the sire of the calf she is carrying. Are there other calves by the same sire?

Tattoo - Does she have a tattoo and does it match the tattoo on her registration papers. All Belted Galloways are REQUIRED to have a tattoo in their left ear for registration. It would be wise to run her through a chute and verify the tattoo. Ask if she has received a brucellosis (Bangs) vaccination.

Breeding/Calving History:

Does this cow breed back within 60 days after being exposed to the bull?

Is she pregnant or open? If bred, when was she exposed to the bull? Has she been confirmed pregnant? What bull was the service sire and what is the cow's due date?

How many calves has she had? How old was she when she had her first calf? Has she had a calf every year? Has she ever aborted? Has she lost a calf at birth or before weaning? Why?

Has she needed assistance in calving? Has ever she had a prolapsed uterus, a caesarean, or a dystocia?

Has she ever had a calf with hypotrichosis (excessive hair loss)or any serious health or conformation problems?

Were her calves vigorous at birth and did they have a strong nursing instinct?

What were her calves' birth weights? How were her calves marked?

Does she have good maternal instincts (licks off calf at birth, readily accepts nursing calf, stays with a young calf)?

How is her temperament when she calves? Is she aggressively protective, sufficiently protective, or indifferent?

Does she milk adequately for acceptable calf growth? A cow that has difficulty maintaining her weight while supporting a fast growing calf would be considered a heavy milker. When a calf frequently sucks, repeatedly switches teats as though searching for more milk, and does not gain weight well, its dam may not be providing an adequate milk supply. The ideal cow provides sufficient milk to sustain a rapidly growing calf without losing much weight herself. Do her calves gain well? What were their weaning and yearling weights?

What bloodlines or bulls have been used most successfully to sire her calves?

Genetics and Health:

Ask for copies of her registration papers. Is she a purebred? Is she an appendix? What are her bloodlines?

Are her last five generations all Belted Galloways registered in the Herd book, with no crosses to other breeds, incomplete belts, or extra white?

Has she ever been injured or ill? What routine vaccinations, worming, and veterinary care has she received?

Will a health certificate be provided? This is a necessity if she is being transported out of state.

Does she keep flesh and condition with proper nutrition? Is she primarily on grass, or is she usually grain fed? If she has been grain fed, how much per day? Has she been provided shelter from incliment weather? Feed and weather can affect an animal's performance.

Were detailed records kept about her history? What is her farm of origin and where has she been located since then? Ask for a copy of her records.

Terms of Sale:

Ask if she is sold "as is" or with a breeding soundness guarantee. If there is a guarantee, be sure there is a mutual understanding of what will occur if the animal does not meet the requirements of the guarantee. Ask for all terms of the sale in writing.

For additional information about Belted Galloways, visit: www.beltie.org.



Purchasing a Belted Galloway Heifer
Questions to Ask

Intended Use:

Before selecting heifers for your Belted Galloway herd, you should determine their intended use. Will it be for beef production, showing, to sell breeding stock, or just attractive animals to have around? Will they be grass fed or supplemented with grain? Will you be able to monitor your animals closely, or should they need to fend for themselves? What is your knowledge level of animal husbandry? How do you intend to market your cattle? Once you know the answers to these questions, you can select the questions below that are relevant to your intended use.

Physical Inspection:

Conformation -- Is she structurally correct? (See Belted Galloway Selection Guide)

Size - How does her size compare to other heifers her age? The biggest or best conditioned heifer does not necessarily make the best cow. Over-conditioning can cause excessive fat deposition in the young, developing udder which can hinder the heifer's potential milk production. A heifer small in stature may have a poor rate of gain or have received poor nutrition. Additionally, you may have to delay breeding her until she reaches an acceptable size.

Productive Udder -- Is her udder well attached and balanced? It is difficult to predict from a heifer's udder how it will look as she matures, but thick and long teats at an early age are an indication she could have poorly shaped teats as she ages. Her quarters should be similar in size.

Feet - Are her hooves in good shape? Toes should not be excessively long or crossed. Do the dam or sire need regular hoof trimming?

Disposition - What is the heifer's temperament? A nervous and flighty heifer can present handling and safety problems. Does she respect fences? Has she been handled? Is she halter broke?

Tattoo - Does she have a tattoo and does it match the tattoo on her registration papers? All Belties are REQUIRED to have a tattoo in their left ear for registration. It would be wise to run her through a chute and verify the tattoo. Ask if she has been given a brucellosis (Bangs) vaccination.

Genetics:

Ask for copies of her registration papers. Is she a purebred? Is she an appendix? What are her bloodlines? Are her last five generations all Belted Galloways registered in the Herd book, with no crosses to other breeds, incomplete belts, or extra white?

Conformation -- If possible, look at the conformation of her sire and dam to get an indication of how she will mature structurally. Ask to see other animals in the herd that are related to her, such as siblings.

What was her birth weight and birth vigor?

What is her dam's breeding and calving history? Has she lost calves, if so, what was the nature of the problem? Has she had difficult deliveries? Does her dam have any history of producing calves with hypotrichosis (an inherited condition causing excessive hair loss)?

What is her dam's milking capacity? A dam that has difficulty maintaining her weight, while supporting a fast growing calf, is considered to be a heavy milker. When a calf frequently sucks, repeatedly switches teats as though searching for more milk, and does not gain weight well, its dam may not be providing an adequate milk supply. The ideal cow provides sufficient milk to sustain a rapidly growing calf without losing much weight herself.

Has the dam or sire had mismarked calves? If so, what is the frequency and type of mismarking (incomplete belts, excessive white)?

Health:

What vaccinations and veterinary care has she received? Has she has received any injections recommended for her geographical location and has she been dewormed?

Has she ever been injured or ill? Are her eyes bright and clear? Does she have a nasal discharge?

Does she have warts? The appearance of warts in young cattle is not unusual, and should not disqualify them from consideration. However, you may want to segregate her from the rest of your herd until the warts have been eliminated. All newly purchased animals should be segregated from resident animals for a minimum of two weeks after arrival.

Will a health certificate be provided? This is required if she is to be transported across state lines.

When was she weaned? Ideally, she should be weaned at least 10 days before moving. Moving animals or making significant feed changes too soon after weaning can increase the risk of illness. Determine the type of diet the heifer was on at the time of purchase.

Breeding Status:

If she is a year old, has she exhibited a heat period, if so when? Many people elect to breed heifers around 14 months of age. A heifer should be two-thirds her mature size and weigh 650 to 750 lbs. before she is bred. A heifer's weight depends on many things including her feeding program, genetics and environment. Breeding a heifer before she has reached the proper size can result in calving difficulties and reduced mature size.

Has she been exposed to a bull? If so, when and how long was she with the bull?

If she is bred, has the pregnancy been confirmed? What is her expected calving date? To what bull was she bred?

Terms of Sale:

Ask if she is sold "as is" or with a breeding or soundness guarantee. If there is a guarantee, be sure there is a mutual understanding of what will occur if the animal does not meet the requirements of the guarantee. Ask for all terms of the sale in writing.

For additional information about Belted Galloways, visit: www.beltie.org.

III. The Beltie as Beef

Grainfed Tests

As a means of identifying superior genetics for breeding stock and meat production, the first-ever Belted Galloway bull test in the U.S. was conducted over the winter of 1999-2000 at the Van Meter Feed Yards in Guthrie Center, Iowa. The test was conducted by the Great Plains regional group in conjunction with the Iowa Cattlemen's Association and included 8 bulls entered by 6 breeders from across the country.

Questions the test organizers faced were, *What was the impact of penning the Belted bulls with other (larger) breeds?* and, *What would an optimal diet be for testing the bulls?*

Three bulls were withdrawn because they were smaller and did not thrive in the pen, but did well when returned to home pastures. The best two gains were realized by bulls that had been pre-conditioned by running with steers before arriving at the test site. Another two had been shown and carried more condition at the start.

Benchmarks established as a result of the Guthrie trial were:

Weaning weight.....524 lbs.
Adjusted 205-day weight.....573 lbs.
Weight per day of age (yearling)… .....2.16 lbs.
Scrotal measure.....34 crn.
Frame score 2.8
Ribeye area……..……. 11.69 sq. in.
Backfat.....0.11 inch
Marbling… .....5.21 %
Average daily gain on test (yearling ADG)….....2.38 lbs.

Over the winter and spring 2003 trials were conducted by the University of Tennessee at Martin which included 8 subjects in a Belted Galloway bull test plus a feedlot trial with 10 Belted Galloway heifers, 10 Beltie steers, and 13 black steers. Tissue samples have been frozen for future comparison testing, and reported data on the feedlot trial included:

	Belted Heifers	Belted Steers	Black Steers
Rate of gain at 112 days, lbs. per day	1.98	2.13	2.99
Feed efficiency, lbs. feed per lb. gain	9.03	9.00	8.98
Ribeye area at start of trial, sq. inches	6.64	7.66	7.28
Ribeye area at 112 days, sq. inches	10.94	10.85	12.41

The University noted that the quality of the animals probably influenced performance, and plans future trials with better animals and to provide a science-based evaluation of quality issues including taste variation, health and cost of production.

Top gainer in the grainfed Bull Test was Driftwood Legend. The bulls came in ranging from 417 to 730 lbs. And at 112 days ranged from 707 to 1035 lbs. Hip heights were 42 to 47 inches.

The bulls were given soundness exams and ultrasound measured with the following results:

	In-coming Wt.	Total Wt. Gain	ADG for Test	Wt. Day/Age Ave·	Ribeye Area inches	Back Fat inches	IM Fat % (Marbling)
1	628	276	2.48	2.17	11.92	0.22	5.60
2	684	351	3.13	2.26	11.35	0.13	4.69
3	692	341	3.04	2.61	12.50	0.24	3.70
4	556	202	1.80	1.68	09.44	0.14	2.15
5	646	278	2.48	2.38	13.44	0.20	3.08
6	708	327	2.91	2.42	14.95	0.20	6.21
7	417	290	2.58	1.98	08.93	0.09	2.04
8	730	305	2.72	2.46	13.63	0.14	6.62

Rose Herd Grassfed Bull Tests

By Loren A. Olson, M.D.

During much of the 20th century Belted Galloways were considered to be an endangered breed by the American Livestock Breeds Conservancy, and almost every Beltie was valued because of its potential contribution to the gene pool. Now the breed is considered a conservation success story. While Belties may always remain a minor breed, their sustainability for future generations will be secured only if they can find an economically viable place in the cattle industry.

In 2002, Robert Rose of Vermont generously donated his herd of Belted Galloways to the Belted Galloway Foundation for purposes of research and education, and some base line data were recorded on his entire herd. Weights in the Rose Herd for the mature cows ranged from 1030 to 1365 lbs. at the time of weaning fall calves, with the average weight being 1198 lbs. The weight and frame size of the Rose Herd is preferred in many forage-based production systems and would appear to be typical of many small Beltie herds.

Three-year-old cows ranged from 925 to 1175 lbs with an average weight of 1045 lbs., or 87% of the mature cow's average weight. There was just one 2-year-old heifer and she weighed 76% of the mature average. Frame sizes of the mature animals ranged from 2.5 to 5 with the average frame scoring 3.7. This would also lead us to conclude that it is likely that a 2-year-old heifer should attain a weight of approximately 75% of adult weight and a 3-year-old about 85%.

The Beef Improvement Federation recommends bull testing as a way of choosing bulls to meet production goals, and has developed testing procedures for both forage and grain based operations. The Belted Galloway breed would benefit substantially if multiple tests were run on a regional basis. If any breeders are interested in initiating such tests, following are the basics for the forage-based test:

... Calves should be 180-270 days of age and should have a maximum age range of 90 days .

... When bulls are put on test and when taken off test they should be weighed on two consecutive days .

... Nutritional programs must provide adequate levels of protein and energy to allow for expression of genetic differences in growth. Ration analysis should be done .

... Because of the slower growth rate for forage-based test the minimum length is 168 days. (For grain, minimum is 112 days).

Those who might want more specific information on testing are referred to the following web site: www.beefimprovement.org/guidelines/Chap3.PDF.

In 2003 sixteen bulls from the Rose Herd were subjects in a grass fed test. The purpose of a bull test is to identify the best bulls within the contemporary group based on characteristics the producer feels are most important. When environmental factors are controlled, differences expressed in animals will more closely reflect heritable distinctions.

The first Rose Herd bull test established a list of several criteria, with the committee weighting some characteristics more heavily than others. Several bulls seemed to come to the top most of the time. Based on the data from this group, it is possible to establish "benchmarks," i.e. future target goals, as seen in the table below.

Forage-Based Bull Test Averages and Benchmarks

	Range of Values	Average Value	Benchmark
On test weight	378-578 lbs		>525 lbs
Off test weight	499-715 lbs		>650 lbs
ADG on test	0.37-0.61 lbs/day	.48 lbs/day	>0.60 lbs/day
Yearling weight per day of age	1.12-1.56 lbs/day	1.24 lbs/day	>1.50 lbs/day
Adjusted yearling weight	468-650 lbs	544 lbs	>600 lbs
Testicular Size	25-34 cm	31 cm	>33 cm

Real-time use of ultrasound offers producers a means to make genetic improvement by identifying animals that are superior in economically important traits. Rib eye area (REA) and fat thickness are highly related to retail product cut, and can be measured with a high degree of accuracy. Both are also moderately to highly heritable.

Marbling or "Percent Intramuscular Fat" (% IMF) is more subjective and is only moderately heritable. It is, however, the current USDA definition of "quality."

The committee that designed the Rose Herd Bull Test chose to use ultrasound and emphasize REA (and to a lesser extent % IMF) over the more traditional measures of rates of gain. Backfat was measured, but there was so little that it was not a useful differentiation between the bu11s. As the better bulls are chosen and used as Rose Herd breeding animals, it is assumed that the values included in the chart on the following page will improve over time and there will be greater consistency in the animals. Some producers in different environments and with different management systems may already exceed these benchmarks. For some measures, an intermediate value may be more desirable than a maximum value.

Rose Herd Bull Test -- Ultrasound Summary

	Range of Values	Average Value	Benchmark
Rump Fat Thickness	0.04-0.09 in	Insignificant	Insignificant
Rib Fat Thickness	0.06-0.10 in	Insignificant	Insignificant
Rib Eye Area (REA)	4.90-6.80 sq in	6.0 sq in	>7.0 sq in
% Intramuscular Fat	1.8-4.32%	3.45%	>3.9%

In the first Rose Herd Bull Test, ultrasound was performed at six months and at the end of the test. There appeared to be some correlation between the two, but not enough to recommend routine use of the test before one year of age.

Those bulls from the Rose Herd test which were steered will be subjects of continuing research in the areas of healthy vs. unhealthy fats plus tenderness and taste in grass-finished beef. DNA gene sequencing will attempt to identify useful genetic correlates with marbling, tenderness and conformation.

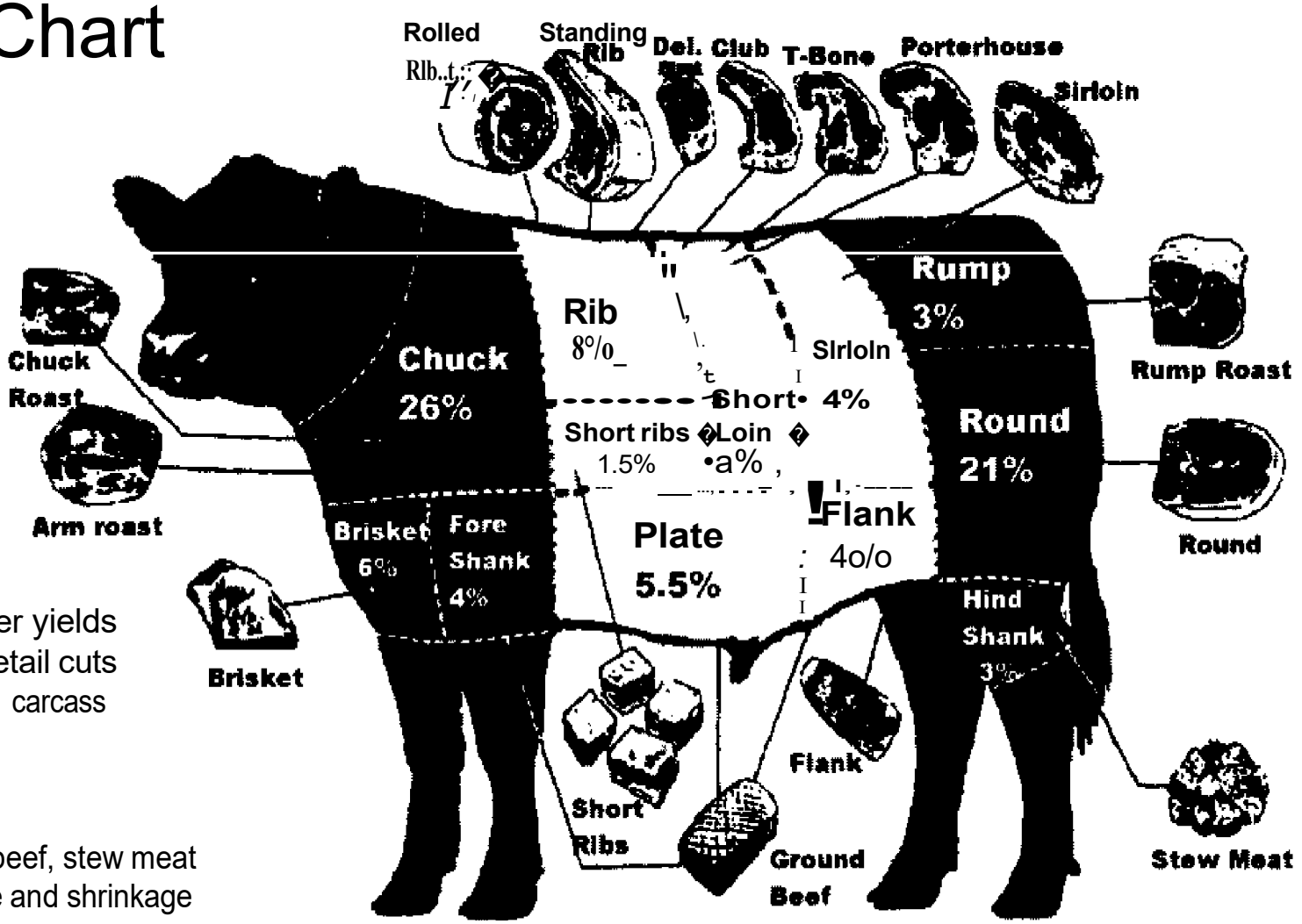
Direct comparisons between animals raised at various sites, ages or times should not be made because of differences in environmental conditions and testing procedures. However, data generated by tests of the Rose Herd are a useful starting point for the individual Beltie producer setting his or her own production goals.

Frame Scoring

Mos. Of Age	Frame Score – Male				Frame Score - Female			
	3	4	5	6	3	4	5	6
5	37.3	39.3	41.0	43.3	37.0	39.0	41.3	43.3
6	39.9	40.8	42.5	44.8	38.3	40.3	42.3	44.3
7	40.0	42.0	43.8	46.0	39.3	41.3	43.3	45.3
8	41.3	43.3	45.0	47.3	40.0	42.0	44.3	46.3
9	42.3	44.3	46.0	48.3	41.0	43.0	45.0	47.0
10	43.3	45.3	47.0	49.3	41.8	43.8	45.8	47.8
11	44.3	46.3	47.8	50.0	42.3	44.3	46.3	48.3
12	45.0	47.0	48.8	51.0	43.0	45.0	47.0	49.0
13	45.8	47.8	49.3	51.5	43.5	45.5	47.5	49.5
14	46.3	48.3	50.0	52.3	44.0	46.0	48.0	50.0
15	47.0	49.0	50.5	52.8	44.5	46.3	48.3	50.3
16	47.5	49.5	51.0	53.3	44.8	46.8	48.8	50.8
17	48.0	50.0	51.5	53.8	45.3	47.0	49.0	51.0
18	48.3	50.3	52.0	54.3	45.5	47.5	49.3	51.3
19	48.8	50.8	52.5	54.5	45.8	47.8	49.8	51.5
20	49.0	51.0	52.8	55.0	46.0	48.0	50.0	51.8
21	49.5	51.3	53.0	55.3	46.3	48.3	50.3	52.0
22	49.8	51.8	53.3	55.5	46.5	48.5	50.5	52.3
23	50.0	52.0	53.5	55.8	46.8	48.8	50.8	52.5
24	50.3	52.3	53.8	56.0	47.0	49.0	51.0	52.8

To determine the frame score of your animal, measure hip height in inches and match with the animal's age in months, then read score at head of column.

Beef Chart



1000-lb. steer yields
465 lbs. of retail cuts
from a 600-lb. carcass

25%steaks
25%roasts
25% ground beef, stew meat
25% fat, bone and shrinkage

Marketing Belted Galloways and Beltie Beef

By Loren A. Olson, M. D.

Most Belties are raised in small herds on small farms, and if you want to market Belties or Beltie beef, you must find out how to make small a good thing. Although many raise Belted Galloways just for the pleasure of it, more and more people are beginning to consider them as a serious enterprise on their family farm. Whatever your interests, sooner or later, you will probably have something to sell.

Early in your involvement with Belties, breeders are acquiring knowledge about how to raise Belties and generally are not focused on selling anything, but one of the serious mistakes new breeders make is to focus on production to the exclusion of figuring out what and how you will market what is produced.

Initially, breeders produce primarily for themselves, their family and friends, but as the enterprise grows, one is quickly in the Beltie business. If profit is a consideration, there are two ways to be profitable: 1.) being the lowest cost producer of a commodity, or 2.) developing a unique and superior product.

Beef is a commodity, and commodities are sold at close to the cost of production; profitability depends upon producing and selling large volumes. Belties are not well suited to the commodity market but are very well suited to niche markets. Niche markets are those that produce a product that meets a need currently not being met by more traditional, commodity markets, and for which consumers who have those unmet needs are willing to pay a premium. Meeting those needs creates "value," and it is this value which allows for better prices. The more unmet needs you meet, the better those prices can be.

If a breeder seeks profitability, development of a business plan is essential. Several good software products are available for these purposes. One of the essential components of the business plan is a marketing plan, which encourages the business owner to consider the following: competition, trade area, potential market size and production potential. Preparing a business plan will help you to work through the development of promotional material, what products you wish to sell, and how those will be packaged and distributed.

Belted Galloways work well in a niche market in the cattle industry.

Though they are not well suited to industrial farming, they are ideal animals for the small family farm. Beltie breeders often are "life style" farmers, people drawn to the values of country living. Many are novices, and the moderate size, docile temperament, easy calving and good mothering are characteristics they value. Those starting new herds often pay a premium for their breeding stock.

As breeders become more serious they begin to recognize some of the unique characteristics which make Belties well suited to more artisanal direct marketing, such as organic or grass fed markets. Direct marketing has the greatest potential for returning a profit to the small farm producer. Direct marketing requires passion, persistence and a lot of hard work. It also requires someone that is willing to deal with demanding customers.

Promotion

Promotion enhances value, reduces competition and makes products less sensitive to changes in the market. Examples of promotion are word of mouth, providing samples, and educational programs.

One of the most important parts of promotion is having attractive promotional materials: brochures, business cards and stationery. Because direct marketing involves what some call "relationship marketing," these materials should be attractive and tell/sell your story to your potential customers.

Promotional campaigns can be very expensive if done on a broad scale, and often they are not very effective. The cost per sale can be very expensive. Marketing specialists suggest "segmenting your market." Segmenting the market is the grouping together of customers with similar needs and values, determining their age, income levels, and educational levels and how they spend their free time. For example, one producer near us has targeted her organic products to families who do home schooling and use mid-wives for home birthing. She targets her advertising to this group of individuals and her cost per sale is quite low, but it is very focused on consumers with very similar interests.

Pricing is one of the most difficult tasks for the beginner, and they frequently make many mistakes. Often people believe that if they are new, they must be the lowest priced producer, but once these prices are established, they are very difficult to raise significantly after one gains more experience. Some base their prices on the cost of production alone, without considering that their unique products may hold special value for a targeted group of consumers. It is important to recognize how price influences demand, but consumers will often pay up to 25% more for a product which is tasty, fresh and healthy, particularly if they have a relationship with the producer.

It is important to recognize that the producer sets the price, but the consumer determines the value based on how many of their needs are perceived as being met. You must know what qualities the consumer values. Here is a list of several of them: Flavor, tenderness, freshness, produced in small batches in local facilities, packaging, healthy (lean, free of E. coli), excellent customer service. All of these values will allow you to charge a premium over retail sale prices.

To establish prices, you must assess your costs of production, because if you can't charge more than the costs, you won't be in business very long. Then look at your competition. How much are they charging, and have they left some needs unmet which you can fill?

Developing a customer base takes about 2-5 years, so production should be controlled initially. It takes a lot of good prospects to develop a customer base, and once it is developed it must be managed and retained.

It costs a lot more to find a new one than it does to retain a current one. Frequent contact with your list is important. Find out what needs they have which aren't being met.

Products

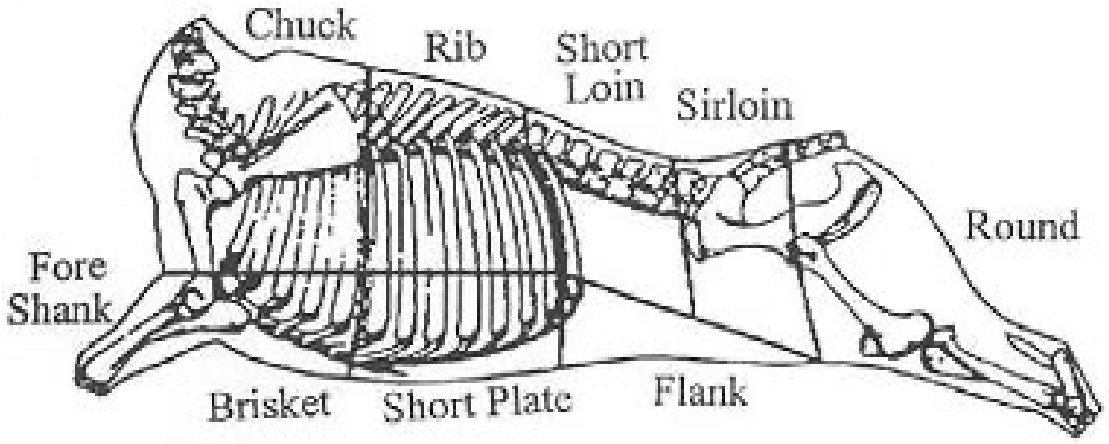
You must make an effort to differentiate your product from the competition, but that differentiation must not be made on the basis a/price if you wish to stay in business. You must focus on your personal story, connecting your values to the product, and those values should be reflected in every contact you have with the potential customer.

In selling breeding stock, this is easy for most of us. We are passionate about our animals, their esthetics, their ease of management, and their temperaments. We love them and it is easy to sell something you love.

But the other primary product we have is BEEF, and most of us are less knowledgeable about how to sell it. "Branding" is the marketing word for connecting your values to your product. Some examples

are organic beef, grass-fed, hormone free, etc. But the consumer is still going to require flavor, freshness and safety. You don't have to have a "brand," but you must have a story to tell.

The producer must understand where the particular cuts come from and which are the premium cuts. For example, the chewy cuts are from the muscles which work the most, like chuck. They are the most flavorful, but are tough if not cooked properly. The loins are the least working muscle and therefore the most tender. Marbling is critical, and understanding the USDA grading system is important. Choice, or moderately marbled meat, may be preferred by many consumers who are health conscious, and many have turned away from beef because it is considered to be overly fat.



1.

Wholesale Cut	Resulting Retail Cut
Chuck	Chuck Roast Arm Roast
Rib	Rib Steak Ribeye Steak Rib Roast Baby back ribs
Short Loin	T-Bone Steak Strip Steak Tenderloin Steak (fillet) Tenderloin Roast
Sirloin	Sirloin Steak Top Sirloin Steak
Round	Round Steak Eye of Round Roast Top Round Roast Bottom Round Roast Cubed Steak

Quality beef must have consistency of product. It must be tender and flavorful. Most beef is aged to enhance tenderness and a minimum of 10 days at 34-36 degrees F is often suggested, with some producers aging their beef up to 3-4 weeks. The way cattle are handled at the time of harvesting is also critical. A stressed steer will produce tough meat.

Premium packaging is essential to premium pricing and many prefer Cryovac packaging. Nothing will turn a customer off quicker than handling a bloody package. Producing beef requires consideration of seasonality, and some producers have moved to spring and fall calving to assure a year round supply of beef.

Balancing sales of different cuts is critical. Most sell beef by the "half" or "whole", meaning the half or whole carcass. Others have found it useful to sell sample packages of about 25 lbs, made up of burger, steak and roasts, especially to new customers who may not wish to make their first purchase a significant one.

Pricing is usually based on the "hanging" weight of the carcass, after the head, hide and hooves have been removed. This weight is approximately 60% of the live weight of the animal. It is important to note that the finished cuts will weigh only about 50% of the live weight because of loss during trimming. Consumers will want to know where that meat went.

Processing can be done at custom processors, state and USDA facilities. You must know the laws applicable to your state if you wish to re-sell. Otherwise you must deliver the animal to the processor in the customer's name, having sold it as a live animal.

Labels are important and must contain the following: Product name, ingredient statement, name and address of the processor, net weight, proof of inspection. Understanding local legal requirements for labeling, handling and storage of meat products is critical.

Distribution must be considered. Some local producers use "drop sites" to deliver meat to urban areas.

Because most Belties are raised in small herds there has been some discussion of "Beltie Beef Certification." Certification results from an alliance of producers who commit to use similar production standards. Certification is a claim about the process rather than product. Producers benefit from networking, greater access to markets and shared promotion.

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This portion of the handbook was sponsored by the Belted Galloway Foundation, through a grant to the foundation by the late Robert Rose. His herd was leased to Malabar Farm to do on-farm research in production and marketing.

Belted Galloway Beef is Nutritional!

By Michael Caldwell, M. D.

Introduction

Rapid changes in the human diet, particularly over the last hundred years, are thought to have promoted chronic diseases such as atherosclerosis, essential hypertension, obesity, diabetes and many cancers. Lean meat, fish, green leafy vegetables, fruits, nuts, berries and honey were the foods generally available to pre-agricultural man, and thereby were the foods that shaped the genetic nutritional requirements of modern humans. However, today about 17% of plant species provide 90% of the world's food supply, with the greatest percentage contributed by cereal grains. Three cereals, wheat, maize and rice account for most of the world's grain production. Thus human beings have become entirely dependent upon these cereal grains for the greater portion of their food supply. And yet, for the vast majority of the history of human kind, man rarely consumed cereal grains. Apropos of the discussion to follow, cereal grains are high in carbohydrates and omega-6 fatty acids, but low in omega-3 fatty acids and in antioxidants, particularly in comparison with green leafy vegetables.(1)

Modern dietary recommendations to reduce cardiovascular disease risk have focused largely on methods to achieve desirable blood lipid levels. These recommendations include a reduction in total dietary fat to 25% to 30% of calories, less than 7% of calories from saturated fatty acids, less than 1% of calories from trans fat, and less than 300 mg per day of cholesterol. (2)

These recommendations represent a high carbohydrate, low-fat diet. Recent studies that have shown however that high-fat, low carbohydrate diets can easily substitute for the recommended “heart healthy” low-fat diets for those factors that increase the risk for cardiovascular diseases, diabetes and obesity. (3)

In this 2-year trial, 322 moderately obese subjects were assigned to one of three diets: low-fat, restricted-calorie; Mediterranean, restricted-calorie; or low-carbohydrate, non–restricted-calorie. The mean weight loss was 2.9 kg for the low-fat group, 4.4 kg for the Mediterranean-diet group, and 4.7 kg for the low-carbohydrate group ($P<0.001$ for the interaction between diet group and time). The relative reduction in the ratio of total cholesterol to high-density lipoprotein cholesterol was 20% in the low-carbohydrate group and 12% in the low-fat group ($P=0.01$). (3)

As will be discussed below due to a misunderstanding of the dietary fat content of lean beef products the “heart healthy” recommendations for reducing cardiovascular disease risk have led to the unnecessary restriction of nutrient-rich beef from the diet. Like fish, pork, poultry, milk, and eggs, beef has high-quality proteins, with sufficient amounts of all the essential amino acids. Beef is an excellent source of B vitamins, including niacin, vitamin B6, and vitamin B12, which is found only in animal foods. Lean beef provides heme iron, the organic iron that is about five times more useful to the body than non-heme iron, the inorganic form of iron found in plant foods. Beef is also an excellent source of zinc. However, as noted, despite the role of beef as an excellent source of many factors important in human nutrition, there has developed an unwarranted focus on beef fat content and composition and the notion that beef is not “heart healthy”.

Classes of Dietary Fats

Dietary fat consists principally of triglycerides with lesser amounts of phospholipids and sterols. Triglycerides and phospholipids are composed of fatty acids attached to a glycerol backbone. Fats and

oils from animal and vegetable sources contain mixtures of saturated and unsaturated fatty acids. Saturated fatty acids (SFAs) contain only single carbon-carbon bonds and have limited chemical reactivity. Mono-unsaturated fatty acids (MUFAs) contain one double bond and polyunsaturated fatty acids (PUFAs) contain multiple double bonds. Chemical reactivity increases with the number of double bonds. The double bonds in the carbon chains are in either the *cis* configuration (hydrogen atom at either end of the double bond on the same side) or *trans* configuration (hydrogen atom at either end of the double bond on opposite sides). All dietary fat provides the same number of calories (9.3) per gram when metabolized for energy. Animal fats generally contain larger amounts of SFAs and are solid at room temperature; plant fats have a higher content of unsaturated fatty acids and are liquid (oils) at room temperature. Conjugated linoleic acid (CLA), a *trans*fatty acid found in beef, is a collective term for a group of isomers of the essential fatty acid, linoleic acid, which are characterized by alternating single and double bonds. (4)

Ratio of n-6/n-3 Fatty Acids

Humans are thought to have evolved on a diet with a ratio of omega-6 to omega-3 essential fatty acids of approximately 1. In modern Western diets the ratio is 15/1-16.7/1. The excessive amounts of omega-6 polyunsaturated fatty acids and high omega-6/omega-3 ratio have been shown to promote the many diseases, including cardiovascular disease, cancer, and inflammatory and autoimmune diseases. Increased dietary omega-3 PUFA resulting in a lower omega-6/omega-3 ratio exert suppressive effects on these diseases. In the prevention of cardiovascular disease, a ratio of 4/1 is associated with a 70% decrease in total mortality. A ratio of 2.5/1 has been shown to reduce rectal cell proliferation in patients with colorectal cancer, while a ratio of 4/1 with the same amount of omega-3 PUFA had no effect. These and other similar studies have shown that a lower ratio of omega-6/omega-3 fatty acids is more desirable in reducing the risk of many of the chronic diseases of high prevalence in Western societies. (34)

Profile of Beef Fats

Beef fat is approximately half saturated fatty acids. The next most abundant lipid is composed of MUFAs and there is a small amount of PUFAs in beef. Also, a major portion of the total saturated fat in beef is stearic acid. Unlike other long-chain SFAs, stearic acid has been shown to be neutral in its effects on human blood cholesterol levels. (5,6) Naturally occurring *trans*fatty acids are found in low amounts in meats such as beef. Most *trans*fatty acids are synthesized during the hydrogenation of fat and oils and are found in "hydrogenated" vegetable oils and products containing these oils. Beef is also an important source of CLA, which has been shown to have several potential health benefits, including reduced risk of some cancers and coronary heart disease in experimental animal models. When the CLA intake of U.S. adults is estimated by 3-day dietary records, beef provides approximately 32% of total CLA intake.

Beef Fat in Perspective

Due to its popularity in many diets, beef is a significant contributor to dietary fat intake. However its contribution is not as high as is often perceived. In the mid 1990s beef was the number one source of MUFAs, contributing 11.4% of total intake; the number two source of SFAs, contributing 11.7%; the number ten source of PUFAs at less than 2.0%; and the second major source of cholesterol at 16.1%. (8) However, there has been a progressive movement toward more lean beef in the U.S. diet. The 1990 Nutrition Labeling and Education Act defined lean cuts of meat as those containing less than 10 g of total fat, 4.5 g or less of saturated fat, and less than 95 mg of cholesterol per 100 g. There are 29 cuts of beef that meet these criteria. (9) By this standard a 3-oz serving of most lean beef cuts contains less total fat and saturated fat than a similar size serving of a skinless chicken thigh (9.2g and 2.6g respectively).

Recent studies have shown similar effects of lean red meats and lean white meats on serum lipid profile when. In this study, mean concentrations of total cholesterol were nearly identical in the both lean meat groups. HDL cholesterol (the "good" cholesterol) increased by approximately 2% in both groups and mean triglyceride levels remained similar to baseline values. (10)

Stearic Acid

Data accumulated during the past 50 years indicate that stearic acid (C18:0) is unique among the saturated fatty acids in the food supply (5, 11-13). Unlike other predominant long-chain SFAs – palmitic (C16:0), myristic (C14:0), and lauric (C12:0) acids - which increase blood cholesterol levels - stearic acid has been shown to have a neutral effect on blood total and low density lipoprotein (LDL) cholesterol levels (5, 11-14). This neutral effect on blood total and LDL cholesterol levels implies that stearic acid may not increase the risk for cardiovascular disease.

Despite subsequent findings supporting stearic acid's neutral effect on blood total and LDL cholesterol levels (14, 15), stearic acid has continued to be grouped with other SFAs, thus continuing the misconception that all SFAs raise blood cholesterol levels and increase cardiovascular disease risk.

Separation of stearic acid from other SFAs should place fewer restrictions on foods and allow for more flexibility in planning diets to reduce the risk of cardiovascular disease. Unfortunately there is currently no practical way to incorporate stearic acid's uniquely neutral effect on blood lipid levels into dietary guidance, current dietary recommendations are for total SFAs only. (2, 16)

Trans Fatty Acids

The primary *trans*fatty acids in beef is vaccenic acid. This differs from the *trans*fatty acids (elaidic acid) in partially hydrogenated vegetable oils. Elaidic acid is associated with an increased risk of coronary heart disease, while evidence suggests that ruminant-derived *trans*vaccenic acid may not have the same increased risk because of its conversion in the body to CLA, which appears to have health benefits. (17, 18, 19)

As noted all trans fatty acids are not created equal. There are two general categories of trans fatty acids: synthetic and naturally occurring. Synthetic *trans*fatty acids are created during a chemical process (hydrogenation) which adds hydrogen molecules directly to monounsaturated or polyunsaturated fatty acids, making them more saturated. This process converts liquid oils to a semi-solid form which adds shelf-life, provides flavor maintenance and textural properties. Approximately 90% of all *trans*fat consumed in the U.S. diet comes from processed and snack foods such as chips, cookies, crackers, vegetable shortening and commercial baked goods, as well as fried foods like French fries and fried chicken. (20) While man-made *trans*fat derived from vegetable fats increases risk of coronary heart disease, naturally occurring *trans*fat of animal origin does not increase the risk, and may decrease it. The highest intakes of vegetable *trans* fat were associated with a 78% increase in risk of cardiovascular disease (RR 1.78) while the highest intakes of animal *trans* fat had a 41% reduction in risk (RR 0.59). (17) In addition, Hodgson and colleagues also found that intake of man-made elaidic acid and *trans*-10 octadecaenoic acid was positively correlated with coronary heart disease, however intake of other *trans* fat, including naturally occurring vaccenic acid (found in beef fats), was not. (21) Thus, unlike man-made *trans* fatty acids, the two major *trans*fatty acids occurring in foods from ruminant animal sources appear to have beneficial health effects. These are conjugated linoleic acid (18:2 *cis*-9, *trans*-11 and *trans*-10, *cis*-12) and vaccenic acid (18:1, *trans*-11).

Conjugated Linoleic Acid (CLA)

Conjugated linoleic acid is a naturally occurring *trans*fat that has been reported to have beneficial effects on genomic regulation, metabolic functions, and physiological outcomes although most of the work has been done in animal studies. (7) The major dietary sources of CLA are foods from ruminant animal sources, with about 70% from dairy products and 25% from red meat (beef, lamb and veal). (22) Animal studies have found that dietary CLA reduces total and LDL plasma cholesterol levels and suppresses cholesterol-induced atherosclerosis. (23, 24, 25)

Vaccenic Acid (VA)

Vaccenic acid is the other naturally occurring *trans*fat that may have beneficial health effects. (26) A significant percent of VA supplied in the diet is converted in vivo to *cis*-9, *trans*-11 CLA via endogenous synthesis. (26)

Potential Health Benefits of CLA

In vitro and experimental animal studies indicate potential health benefits of CLA. The predominant CLA isomer in beef, *c*9, *t*11 (rumenic acid), has been demonstrated to inhibit cancer at several sites, particularly the mammary gland (27), reduce cardiovascular disease risk factors (23, 24, 25), improve insulin sensitivity(28, 29), and exhibit an anti-inflammatory effect (30). However, relatively few studies have been conducted in humans. Moreover, there is considerable variation between and among findings from experimental animal and human studies investigating potential health benefits of CLA, which may be attributed to differences in the sources and amounts of CLA used, among other factors. (31) There is a need for further research on the health benefits of CLA in humans as recognized in the 2005 Dietary Guidelines Advisory Committee Report (32) which acknowledges the unique biological effects and potential importance of naturally occurring fatty acids, such as CLA and its precursor, vaccenic acid. (31)

The Unique Qualities of Belted Galloway Beef

In late 2008, the Belted Galloway Society Foundation (BGSF) funded a study of the nutritional value of selected cuts of Belted Galloway beef. In this study rib eye steaks from 3 grain fed steers from Aldermere Farms and 3 grass fed steers from Caldwell Farms were analyzed for standard nutrient content (as dictated by USDA labeling requirements) and fatty acid analysis. The animals from Aldermere Farms were fed 8 lbs of barley, 2-3 lbs of oats and 5lbs of protein pellets containing 16% protein in addition to hay for the last 90-120 days prior to harvest. The animals from Caldwell Farms were fed on pasture composed of alfalfa, red clover, timothy and brome grasses from weaning to harvest. The table below shows the data from these analyses as compared with reference USDA values for the same cuts of beef. (CF=Caldwell Farms, AF=Aldermere Farms, USDA= USDA reference NDB#13095) (Data are listed as arithmetic mean, SEM=standard error of the mean with n=3) (All values are represented per 100g. sample)

Table 1. Mandatory Nutrient Analysis Belted Galloway Beef

PER 100 g. SAMPLE	Ave CF	SEM	Ave AF	SEM	USDA*
Total Calories	119.00	2.31	176.67	3.84	274.0
Fat Calories	27.00	0.00	102.00	3.00	234.0
Total Fat(g)	3.00	0.00	11.33	0.33	22.0
Saturated Fat(g)	1.00	0.00	4.67	0.67	9.0
Cholesterol(mg)	11.33	1.20	47.33	3.33	68.0
Sodium(mg)	50.00	2.08	55.33	4.33	56.0
Total Carbohydrate(g)	0.00	0.00	0.00	0.00	0.0
Dietary Fiber(g)	0.00	0.00	0.00	0.00	0.0
Sugars(g)	0.00	0.00	0.00	0.00	0.0
Protein(g)	23.00	0.58	18.67	0.33	17.5
Vitamin A (IU)	0.00	0.00	0.00	0.00	0.0
Vitamin C (IU)	0.00	0.00	0.00	0.00	0.0
Calcium(mg)	17.67	1.67	15.67	0.33	10.0
Iron(mg)	1.56	0.05	1.98	0.29	1.8
Thiamine(mg)	0.06	0.01	0.07	0.01	0.0
Riboflavin(mg)	0.12	0.01	0.09	0.00	0.1
Niacin(mg)	5.41	0.76	5.78	0.87	3.2
Potassium(mg)	299.33	11.67	304.00	8.02	305.0
Phosphorus(mg)	189.33	1.33	176.33	3.53	168.0
Magnesium(mg)	16.67	.88	17.67	0.33	18.0

*USDA reference NDB#13095 Beef, rib eye (ribs 10-12) separate lean and fat trimmed to 0" fat, choice, raw

These data show the remarkable differences between Belted Galloway beef as compared with reference beef. On average the beef of the Belted Galloway is 46% lower in calories, 72% lower in fat calories, 68% lower in total fat, 69% lower in saturated fat, 57% lower in cholesterol, 19% higher in protein, 67% higher in calcium, and 73% higher in niacin. Table 2 shows the comparison of Belted Galloway beef lipid profiles in the Foundation study with reference USDA values (NDB#13095). On a total product content basis the USDA reference beef is higher in saturated, mono- and polyunsaturated fatty acids, shorter chain saturated fatty acids, palmitic, and oleic fatty acids. However it has less linolenic acid and conjugated linoleic acid. There is a marked difference in the total fatty acid content among the beef categories and as seen in Table 3, the absolute amounts of the lipid profile attributes correlate directly with the total amount of fatty acids present. USDA reference beef just contains considerably more total

fatty acids consistent with the total fat content seen in Table 1. The Foundation study gives examples of pasture raised (CF) vs. intensive production system (USDA) as well as an example of a mixture of the two systems (AF). The data are consistent with the recent work of Kraft, et al (33) in examining the changes in lipid profiles with beef that is pasture raised versus raised in an intensive production system.

Table 2. Beef Fatty Acid Composition (g. /100 g. beef)

	CF Mean	SEM	AF Mean	SEM	USDA
Saturated Fatty Acids (Acid Form)	4.03	0.94	9.10	0.57	9.0
Monounsaturated Fatty Acids (Acid Form)	2.4	0.61	6.79	0.25	9.5
Polyunsaturated Fatty Acids (Acid Form)	0.17	0.03	0.36	0.01	.7
Trans Fatty Acids (Acid Form)	0.55	0.15	0.76	0.08	0.7-0.9*
Total Fatty Acids (Acid Form)	7.57	1.81	17.73	0.52	20.15**
10:0 Capric	<0.02		<0.02		0.0
12:0 Lauric	<0.02		<0.02		0.0
14:0 Myristic	0.21	0.04	0.50	0.09	0.7
14:1 Myristoleic	0.02	0.00	.0.8	0.00	
15:0 Pentadecanoic	0.05	0.01	0.11	0.01	
16:0 Palmitic	2.03	0.45	4.94	0.45	5.4
16:1 Palmitoleic	0.16	0.03	0.45	0.04	1.0
17:0 Heptadecanoic	0.11	0.03	0.22	0.01	
18:0 Stearic	1.81	0.47	3.74	0.14	2.7
18:1 Oleic	2.22	0.58	6.25	0.25	8.4
18:2 Linoleic	0.12	0.02	0.30	0.01	0.10***
20:0 Arachidic	<0.02		0.03	0.00	
20:1 Eicosenoic	<0.02		0.03	0.00	0.0
20:4 Arachidonic	<0.02		<0.02		0.0
18:3 Linolenic	0.06	0.01	0.07	0.00	0.009***
Total 18:1 trans	0.47	0.13	0.70	0.09	
Total 18:1 cis	2.43	0.60	6.54	0.26	
Total 18:2 trans	0.10	0.03	0.09	0.01	
18:2 Conjugated Linoleic Acid	0.07	0.02	0.11	0.01	0.01***

Fatty Acids Calculated as Triglycerides
***USDA Fat and Fatty Acid Content of Selected Foods Containing Trans Fats 1993**
****Estimated from sum of saturated, mono- and polyunsaturated and trans fatty acids**
*****Kraft, J. et al, J. of Agricultural and Food Chemistry 2008, 56, 4775-4782 (IPS)**

The data in Table 3 demonstrate the relative composition of fat from the animals raised in different production systems and the difference in Belted Galloway versus USDA reference commodity beef. As seen in the table, Belted Galloway beef contains more stearic acid, less oleic acid, much more linolenic and conjugated linoleic acids and a markedly lower n-6/n-3 ratio.

Table 3. Lipid profiles based on total fatty acid content
(Milligrams per gram of total fatty acids)

	CF	AF	USDA
Saturated Fatty Acids (Acid Form)	532	532	447
Monounsaturated Fatty Acids (Acid Form)	317	383	475
Polyunsaturated Fatty Acids (Acid Form)	22	20	38
Trans Fatty Acids (Acid Form)	73	43	40
10:0 Capric			3
12:0 Lauric			2
14:0 Myristic	28	28	35
14:1 Myristoleic	3	5	
15:0 Pentadecanoic	7	6	
16:0 Palmitic	268	279	268
16:1 Palmitoleic	21	25	54
17:0 Heptadecanoic	15	12	
18:0 Stearic	239	211	137
18:1 Oleic	293	353	420
18:2 Linoleic	16	17	5
20:0 Arachidic		2	
20:1 Eicosenoic		2	1
20:4 Arachidonic			1
18:3 Linolenic	8	4	0.4
Total 18:1 trans	62	39	
Total 18:1 cis	309	369	
Total 18:2 trans	13	5	
18:2 Conjugated Linoleic Acid	9	6	0.5
Ratio n-6/n-3 PUFA	2.0	4.25	15

Thus in summary based on the discussion of the health effects of beef lipid profiles given earlier in this report, it is clear that Belted Galloway beef is further uniquely important for human health. Not only is Belted Galloway beef lower in calories, lower in fat calories, lower in total fat, lower in saturated

fat, lower in cholesterol, higher in protein, higher in calcium, and niacin, while providing a lower total fatty acid content, this nutritious beef maintains a beneficial CLA content and n-6/n-3 ratio.

Methods

The methods used in the above nutritional analyses are those required by the USDA for mandatory nutritional labeling and include: Gas chromatography for saturated fat and cholesterol; total Kjeldahl for protein; Soxhlet or Mojonner methods for total fat, liquid chromatography for carbohydrate content; enzymatic and gravimetric analyses for dietary fiber; colorometric analyses for vitamin A and niacin; fluorometric analyses for vitamin C, thiamine, and riboflavin; spectrophotometric analysis for phophorus and atomic absorption analyses for sodium, calcium, iron, potassium and magnesium.

The fatty acid and CLA analyses were performed by extraction and GLC methods approved by the Association of Analytical Communities, International and the American Oil Chemist Association.

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Belted Galloway Cattle and The Genetic Basis of Beef Tenderness

By Michael Caldwell, MD
(*Belties 2007*)

Eating satisfaction from beef results from the interaction of tenderness, juiciness and flavor. Of these, beef tenderness is the most sought-after and least consistent attribute available to consumers.

Beef tenderness can be based on species (Bos Taurus European cattle are thought to produce more tender meat than Bos indicus, Zebu or "humped" cattle); pre-mortem nutrition, handling and slaughter technique; and animal genetics.

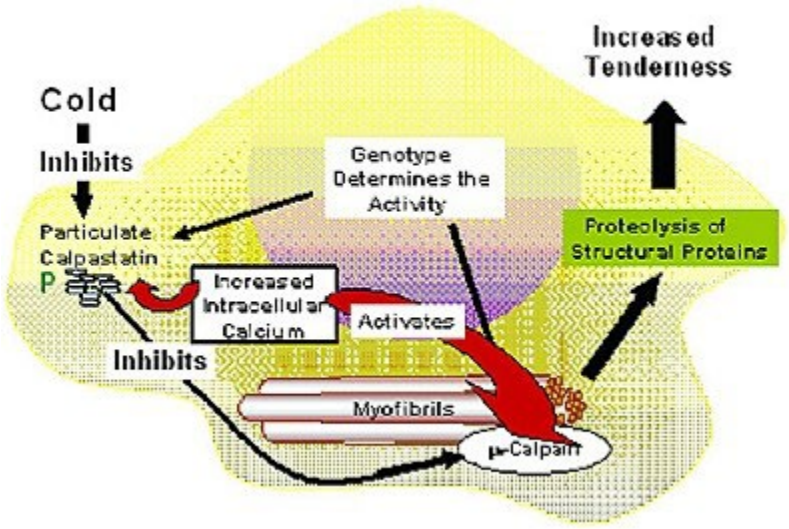
The genetically controlled variation in beef tenderness can be expressed pre-mortem or post-mortem and is currently thought to be due to variations in three genes. These are myostatin, calpain and calpastatin. The genetic effects of myostatin are expressed pre-mortem.

The genetic variant that produces a non-functional myostatin gene has the largest pre-mortem effect on beef tenderness of any single genetic feature investigated to date. Polymorphisms (genetic variants) in the gene myostatin are responsible for "double muscling" which has been noted as associated with increased tenderness, particularly in Piedmontese and Belgian Blue cattle. This increase in tenderness is thought to be related to a decrease in connective tissue in the muscle.

The other two genes shown to be related to beef tenderness are active in the post-mortem events associated with aging of beef. These post-mortem events are thought to be responsible for 90% of the changes responsible for the development of tender beef.

The mechanism of increasing tenderness associated with beef storage at refrigerated temperatures has been shown to be related to two proteins--the m-calpain protease and to its inhibitor calpastatin. The m-calpain protease is an enzyme that catalyzes the degradation of key myofibrillar and associated proteins. These are structural proteins in the beef muscle. More post-mortem activity of this enzyme leads to increased breakdown of muscle structural protein and therefore increase beef tenderness. Calpastatin is an inhibitor of the m-calpain protease and regulates 60% of the tenderness effect of aging. Increased activity of this inhibitor protein blocks the action of the m-calpain protease, thus less muscle breakdown occurs during the aging process and the beef is less tender (Figure 1).

Figure 1



Genotyping for two genetic variants in the gene coding for the m-calpain protease and one in the gene coding for calpastatin has become commercially available. The presence of these genetic variants has been correlated with Warner-Bratzler shear force (WBSF) measurements which are currently the best objective measurements of beef tenderness. The more the WBSF is reduced, the more tender the beef.

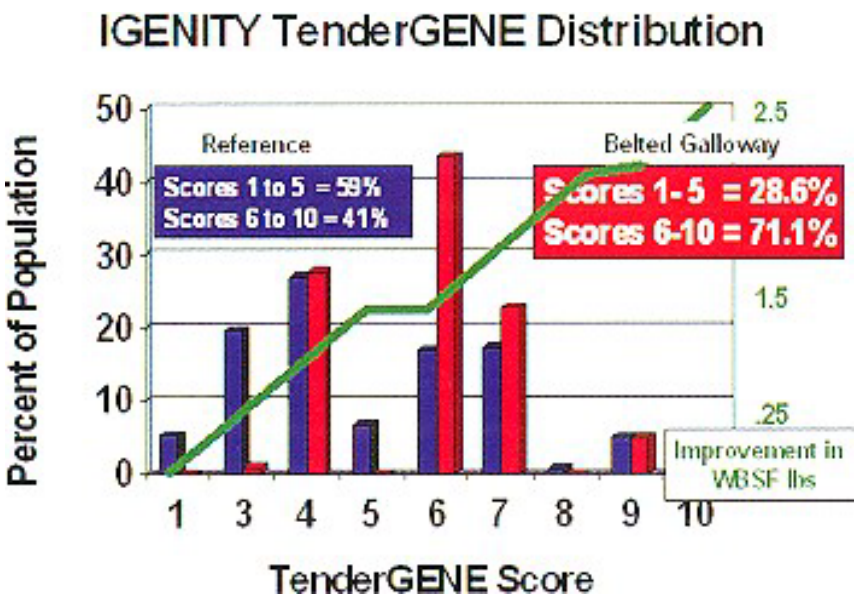
The variants in the gene coding for the m-calpain protease correlating with increased tenderness result in a more active enzyme. The variants in the gene coding for calpastatin that correlate with increased tenderness result in a less active inhibitor. This relationship is shown in the table below.

Score	GENOTYPE			WBSF Effect
	UoG-CAST1	CAPN316	CAPN4751	
10	CC	CC	CC	-2.27
9	CC	CG	CC	-1.95
8	CG	CC	CC	-1.85
7	CC	GG	CC	-1.63
7	CC	CC	CT	-1.55
7	CC	CG	CT	-1.55
7	CG	CG	CC	-1.53
7	GG	CC	CC	-1.44
6	CC	GG	CT	-1.23

Score	GENOTYPE			WBSF Effect
	UoG-CAST1	CAPN316	CAPN4751	
6	CG	GG	CC	-1.21
5	CG	CC	CT	-1.13
5	CG	CG	CT	-1.13
5	GG	CG	CC	-1.11
4	CC	CC	TT	-0.83
4	CC	CG	TT	-0.83
4	CC	GG	TT	-0.83
4	CG	GG	CT	-0.51
4	GG	GG	CC	-0.79
4	GG	CC	CT	-0.72
4	GG	CG	CT	-0.72
3	CG	CC	TT	-0.42
3	CG	CG	TT	-0.42
3	CG	GG	TT	-0.42
3	GG	GG	CT	-0.40
1	GG	CC	TT	0.00
1	GG	CG	TT	0.00
1	GG	GG	TT	0.00

This table gives the genotype and estimated change in W-B shear force measurement from the NBCI trials of the Merial Igenity product. A similar product with slightly different genotypes is available from Bovigen. An Igenity tenderness score has been designated to facilitate an understanding of the relationship between genotype and shear force.

Studies of the Igenity tenderness genotypes from 171 Belted Galloway cattle showed that these cattle scored better for tenderness than other cattle breeds. These data show that 71.1% of Belted Galloway cattle scored 6 or above on the Igenity tenderness scale (10 is the most tender), versus 41.1% of the 1600 reference cattle tested (Figure 2).



This difference is primarily due to the fact that 99% of the Belted Galloway cattle tested had a genetic variant of the gene coding for calpastatin that resulted in markedly decreased activity of this inhibitor of the m-calpain protease. This is an extremely unusual finding among breeds of cattle and bodes well for the marketability of this breed.

IV. Herd Health

Nutrition

Nutritional requirements for cattle vary widely depending on age and condition as well as region of the country. In general, Belted Galloways can survive on forage many other breeds may reject, but to thrive should be placed on a normal diet. During spring and summer grazing should carry the herd without need for supplemental feed. One acre of good pasture per animal is the norm in many regions, however, in some parts of the U.S. the requirement may be as high as 10 to 30 acres per animal. The best way to determine your herd's pasture requirement is by inquiry to your locality's County Extension Office.

Rotational grazing can extend the life of your pastures and lower the acres-per-animal requirement appreciably. Much good literature is available from your Extension Agent on how to set up a rotational grazing system.

When pastures are browning, it's time to begin winter feed. This may consist of various grades of hay or silage and may or may not be supplemented by stock feed, corn, or other grains. To avoid bloat or scours when grain is added to the diet, the amount should begin at 1 lb or less per animal per day and gradually be increased to 3, 5 or more pounds.

The Belted Galloway lends itself well to grassfed beef production, and a growing number of our meat producers are finding that consumers prefer 'naturally produced' beef. Grassfed proponents have established that beneficial CLA content in beef (conjugated lineolenic acid) is higher in grass fed animals.

Free-choice access to hay should be calculated at 10 to 30 lbs. daily per animal (3 Ibs. per animal hundredweight), with bred heifers, lactating cows and working bulls requiring the upper end of the range. A molasses-based liquid protein tank may offer a convenient supplement to winter rations.

Free-choice salt and minerals should be available year around and will be consumed more readily if placed near the herd's water source. Selenium and magnesium are critically important in some regions. (See pages IV-9 and IV-10 for more information on this.)

Round-the-clock access to abundant clean water is crucial, summer or winter. Depending on the weather, the cow needs 15 to 30 gallons of fresh water daily.

Creep Feeding

Creep feeding is the practice of providing supplemental feed to nursing calves before weaning. Generally creep feeding is not an economical substitute for rapid genetic growth potential, nor does it substitute for improved pastures. But in some situations creep feeding may be desirable and economically advantageous.

Creep feeding should be most profitable when (a) dams are first-calf heifers or calves are born in the fall, (b) cows and calves are kept in confinement, or (c) forage quantity and quality are limited.

Creep feeding is not advantageous when (a) forage quantity and quality are abundant, (b) dams are good milkers, (c) weaned calves are to be fed a high-roughage growing ration, or (d) heifers are to be kept for herd replacements.

As the dam's milk production generally is adequate until the calf is 2 to 3 months old, creep feeding is not recommended for very young calves. Milk production declines 60 to 90 days after calving, but the calf's energy and protein needs increase, so creep feeding is best done from 3 or 4 months of age until weaning.

If practical, creep feed only male calves. Steer or bull calves should be placed on full feed soon after weaning, else the additional weight gain from creep feeding will be lost. Overfeeding replacement heifers is considered counterproductive, as excess fat in future brood cows adversely affects lifetime productivity.

If creep feeding is done, limiting quantities to 2 to 3 lbs. per head daily adequately meets the requirements for normal growth of young calves. Feeding more than 3 lbs. per head daily can result in excessive fat deposits instead of skeletal and muscle growth.

Consumption by Calves Creep-Fed Free Choice

Age	Lbs./day	Lbs./month
2-3 mos.	1.5	45
3-4 mos.	2.5	75
4-5 mos.	3.5	105
5-6 mos.	5.0	150
6-7 mos.	6.5	195
7-8 mos.	8.5	255

Suggested Creep Ration Formulations (in percentages)									
Diet #	1	2	3	4	5	6	7	8	9
Cracked or ground corn	32.5	49.5	66.0	42.0	59.5	59.0	69.0	74.5	
Ground ear corn									80.0
Ground or rolled oats	66.0	49.0	32.5	45.0	25.0	15.0			
Alfalfa meal or ground hay						15.0	25.0	10.0	
Dry or cane molasses				5.0	5.0	5.0	5.0	5.0	5.0
34% protein supplement				7.5	10.0	5.0		10.0	15.0
Limestone	1.0	1.0	1.0	.5				.5	
Dicalcium phosphate					.5	.5	.5		
Trace mineral salt	.5	.5	.5			.5	.5		

Formulations similar to the above are available commercially and are generally adequate for creep rations. Protein, vitamins and minerals are usually provided in sufficient quantities by milk and forage, however supplemental protein may be necessary if the dam is not giving enough milk or if pastures are dry and short. It is essential that the protein come from a vegetable source such as soybean or alfalfa meals, and not from urea or non-protein nitrogen. Fall-born calves or calves kept in confinement should have high-quality hay in addition to the grain creep.

Commercially built creep feeders may be purchased, plans for constructing them may be obtained from your Extension Agent, or you may construct fences and gates in the pasture in such a way as to permit access by calves while preventing larger animals from obtaining the creep ration. Be sure your design prevents accidental entry by cows and herd bulls.

Provide 14" to 18" of bunk space for each calf. Place the creep feeder near cows' congregation points as calves will not travel far from their mothers for creep feed.

The openings into the creep area should be about 36" to 40" high and 16" to 20" wide.

Feeding the Orphan Calf

Sometimes through rejection or by death of the dam, we must take over the job of feeding a calf. Our initial chore is getting colostrum (first milk) into the calf, preferably before it is 4 hours old, as without the colostral antibodies the calf has no natural resistance against disease. Colostrum supplied after 4 hours have elapsed has a declining ratio of effectiveness and after 24 hours the benefits are minimal.

It's wise to keep frozen colostrum (available from dairy farmers) in your freezer in case of emergency. There are commercial colostrum substitutes available that are effective, but they don’t always provide protection equal to natural colostrum.

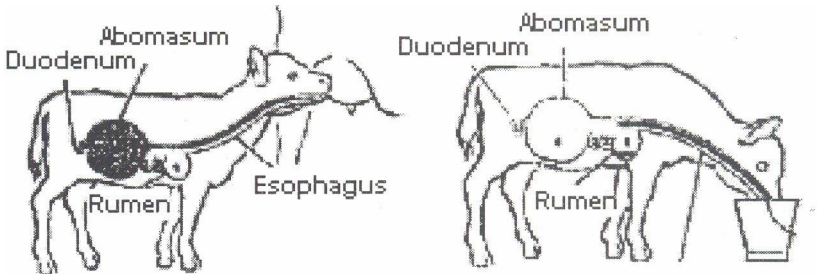
When the calf is born its fourth stomach, the abomasum, is at least three times the size of its first stomach, or rumen. The reason for this is simply that nature intends the calf to utilize its fourth stomach as its main digestive organ during the early part of its life.

When the calf begins suckling with its head held upward, a groove called the esophageal groove at the bottom of the esophagus forms a closed tube, delivering milk straight into the abomasum, bypassing the first, second and third stomachs.

In natural suckling the calf feeds frequently (approximately every two hours), and each time it does, a clot forms in the abomasum. At the end of the day the abomasum contains a number of small clots, each one being acted upon by the digestive juices. There is minimal space left for any other type of foodstuffs.

When a calf is being fed from a ground level bucket with its head down, the tube formation at the bottom of the esophagus is not so complete, and a portion of the intake empties into the rumen, where it is less efficiently utilized.

Esophagus



It is therefore recommended that calves be fed by bottle or with an artificial suckler placed at a height that will ensure the calf's head is held at the correct angle to permit the esophageal groove to function properly.

The recommended rule-of-thumb in selection of commercial milk replacers is for them to contain a minimum of 20 percent protein, 20 percent fat, and less than 0.25 percent fiber. Newer

milk replacers can contain up to 28% protein and 25% fat which more closely approximate the levels in whole milk. Read the labels carefully and mix according to directions.

The calf should be fed formula in an amount equal to 8 to 10 percent of its body weight each day. A 50 lb. calf would receive 4 to 5 lbs. of milk replacer daily (1 pint equals approximately 1 pound).

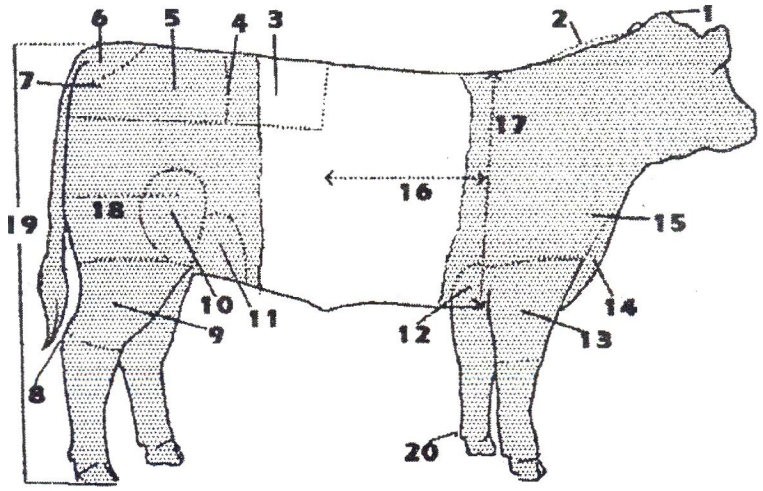
Within the first week of life the calf should be additionally offered water and a commercial pelleted feed such as 'calf manna.' If the calf is reluctant to nibble, dust the pellets with a little of the milk replacer powder to entice its interest.

After three weeks of age, grass or hay and fresh, clean water should be provided. Rumenal digestion is a fermentative process requiring water. As the calf grows it nibbles more and more of the hay and drinks the correct amount of water. The fibrous materials and water pass directly into the rumen, or first stomach. Gradually this stomach develops and increases in size so that when the calf is ready for weaning the original position is reversed -- the rumen is at least three times the size of the abomasum and is ready and able to take on the main task of rumenant digestion.

Weaning can generally accomplished at about 8 weeks of age, or when the calf is consuming 1-1/2 to 2 lbs. of pelleted feed daily.

Terminology: The Cow

1	Poll	5	Rump	11	Rear Flank	16	Ribs
2	Crest	6	Tail Head	12	Fore Flank	17	Heart Girth
3	Loin	7	Pin Bone	13	Fore Shank	18	Length of Rump
4	Hook or Hip	8	Hock	14	Brisket	19	Height at Hip
		9	Hind Shank	15	Point of Shoulder	20	Dewclaws
		10	Stifle				



Deworming the Herd

Vic Eggleston, D. V. M.

Most beef cows are not infected by large numbers of internal parasites and do not serve as a major source of infection for their calves. However, many studies have shown that weaning weights of calves have been increased by timely worming procedures. It is also generally agreed that subclinical parasitic infections affect the young more than the adults.

Parasites of Concern

Stomach worms. Included in this category are *Haemonchus* (barber's pole worm, large stomach or wire worm), *Ostertagia* (medium or brown stomach worm) and *Trichostronglus* (small stomach worm). These parasites far outrank others in incidence. They shed large numbers of eggs that survive best in lush, moist pastures. Heavily grazed, irrigated pastures provide an excellent environment for survival of the larvae. All ages of cattle will be found shedding eggs, with calves as young as 3 months of age infected when on infested permanent-type pastures.

Threadnecked worm. *Nematodirus* are second highest in incidence. This parasite is found (by egg count) in the highest numbers in younger animals, since there is some degree of immunity established in the host animals. The eggs are quite hardy, surviving up to three years on pasture and also surviving well in confinement management conditions.

Hookworm. *Bunostomum* are found in relatively low incidence in beef operations but are prevalent in dairy units, particularly in the South.

Products and Regimens

Dewormers are grouped into Class I or Class II, with Class I being those products that kill only the adult worms, while Class II kill both adult and immature forms. Products in Class I products are no longer commercially available Class II category products contain Ivermectin, Eprinomectin, Moxidectin, Doramectin, Fenbendazole, Albendazol and Oxfendazole.

For preventative parasite control in cow/calf herds spring treatment is recommended (cows, bulls and replacement heifers). Treat cows and calves in mid-summer and all groups of animals in the fall. Cattle that were not dewormed in the fall will carry an internal parasite load onto pasture in the spring.

Worms (internal parasites) residing in animals shed their eggs as soon as grazing begins. The eggs then hatch and develop into infective larvae in the grass. Cattle ingest the larvae when grazing, and the worm's life cycle starts all over again.

A proven preventative method is strategic deworming where the life cycle of the worm is broken, preventing mass shedding of eggs on pastures during the grazing season. The first step in a strategic deworming program is to make sure cattle are 'clean' going into pasture in the spring.

Ivomec, Dectomax, Cydectin, Eprinex are trade names for a class of mectins whose strengths are their broad range of efficacy for both internal and external parasites. It is provided in injectable, oral and pour-on formulations. Its efficacy includes all of the above listed parasites

with the exception of a weakness in the Threadworm area. It is not a tapeworm product. The level of efficacy is recognized as good for all labeled parasites.

Safe-guard Panacur. Fenbendazole is presented in many oral dosage forms including paste, drench, free choice minerals, molasses blocks, crumbles, pellets and cubes. It has a broad range of activity against the important gastrointestinal parasites of cattle. Since the product is not active against grubs and other external parasites, combination strategies have been developed to cover the desired parasites.

Valbazen. Albendazole claims efficacy for all of the significant worms in cattle with the exception of the immature stage of Trichostrongylus, hookworm, and nodular worms.

Summary

1. Determine what parasites are prevalent in your area.

2. Study the comparative efficacy data available related to the parasites.

3. Determine the cost of the products and the associated expenses of available treatments and treatment combinations to determine which products to use.

Administering Injections

Vaccinate properly. Read label to check proper dosage, proper timing (interval between doses and frequency of vaccination), method of administration, and warnings or indications (such as approval for pregnant cows), withdrawal period, storage (refrigeration if needed) and expiration date.

- Select the proper disposable needle to reduce wastage and insure delivery to the injection site. Use only 16 or 18 gauge needles. Use 1/2" needles for SubQ (subcutaneous, under the skin) and 1" or 1-1/2" for IM (intramuscular).
- Do not sterilize MLV syringes with disinfectant. A trace of disinfectant can inactivate a modified live virus.
- Keep separate syringes for modified live vaccines, clearly marked for identification.
- Adjust syringes to deliver the desired dosage.
- Change needles frequently -- each time a syringe is reloaded or at least after every 15-25 injections.
- Replace burred or bent needles immediately.
- Don't combine vaccines; don't alternate or mix medicine in syringe.
- Follow directions of veterinarian for prescription drugs.

- Mix only enough modified live vaccine for 30 minutes. Make sure vaccine is mixed adequately, then shake occasionally to re-suspend the vaccine. Don't keep leftover vaccine.
- Avoid injecting through wet or manure-covered areas.
- Make IM injections deep in heavy muscle.
- Do not inject more than 10ml (cc) in one site.
- Keep injection sites at least 5" apart.
- Don't re-use injection sites.
- Enter date, product and injection site in records.

Animals that are slated for slaughter should receive injections that do not affect acceptability of the beef. Scar tissue does not actually affect the safety of beef as a food, however, packing plants trim away a lot of meat because of injection site scars. It is especially costly when those scars are in the hip or leg muscle.

It is recommended that, where possible, intramuscular and subcutaneous injections be given in the neck. SubQ injections can be given below the tailhead between the rectum and the pinbones if that area is clean. Give SubQ injections carefully. If the neck is the chosen site, use a short needle, raise a fold of skin (tent) with one hand, and inject under the tent.

Calfhood Vaccination

Vaccinating your calves against Brucellosis when they are between 4 and 10 months of age may be considered. A few of the states which have achieved Class A (brucellosis-free) status will not permit cattle to enter their borders without the tag and tattoo that provide proof of calfhood vaccination. On the other hand, animals for export may be refused if vaccinated. Check with your veterinarian about whether Brucellosis vaccinations are appropriate for your herd.

Breeders may also wish to check with their veterinarians to learn how to achieve 'certified herd' status, an option available in most states. A certified brucellosis-free herd is one which has passed at least two consecutive complete-herd blood tests not less than ten nor more than fourteen months apart. The certification period lasts one year from the date of the qualifying test and the herd must pass an annual blood test thereafter for continuous certified status. The advantage of maintaining a certified herd is that sale or exhibit animals may be shipped with just a health certificate, eliminating the blood tests and waiting periods otherwise necessary to enable shipment into most states.

Interstate Shipping

To determine the cattle health requirements of a state before arranging to ship animals to buyers, shows or sales you may ask your veterinarian for information about which tests are needed. Or, you may look up each state's requirements on the Internet at <www.aphis.usda.gov/vs/sregs>

or, you may dial the VOICE RESPONSE SERVICE sponsored by the Centers for Epidemiology and Animal Health at (800) 545-8732

Since blood test results are usually returned in 8 or 10 days, you'll want to make arrangements for tests and health certification about 2 weeks prior to your shipping date.

Selenium

Selenium is a trace mineral in forage that works in conjunction with Vitamin E. In the areas of the country which are selenium-deficient, cattle breeders find it necessary to supplement by including it in salt, mineral mixes or as an additive to grain mix. Selenium is also available in an injectable form combined with Vitamin E. Mu-Se is a product designed for cows, and Bo-Se is for calves. These products are available on a prescription basis from your veterinarian.

Selenium deficiency in cattle can cause:

1) White muscle disease in calves, as evidenced by weak newborns or calves up to 6 months of age that become weak and exhibit muscle degeneration.

2) Retained placenta.

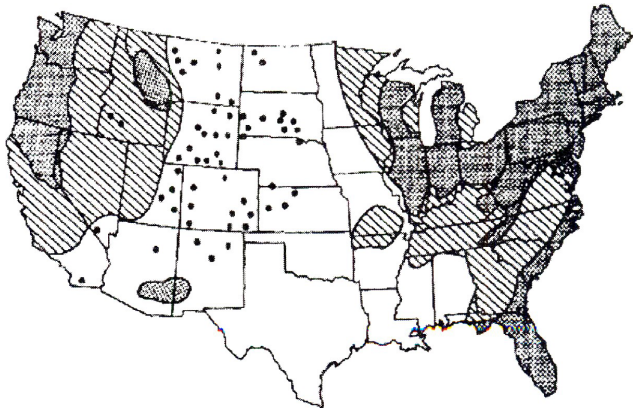
3) Possible abortions.

4) Poor heat periods and reduced conception rates.

5) Reduced resistance to disease, because Selenium is involved in maintaining the immune system both locally and systemically.

Check the map below to determine if your herd is in a high risk area. Heavily shaded areas indicate the regions where most grains and forages are very low in selenium. Striped areas indicate varying levels of selenium from low to adequate. Unshaded areas indicate most grains and forages in the region are adequate to high in selenium, and the black dots are local spots where some plants have excess selenium.

Breeders in at-risk regions may wish to obtain laboratory analyses of their herds' selenium levels via blood testing.



Magnesium

Magnesium deficiencies occur primarily in the South Central and Southern portions of the U.S. Grass tetany is a disorder caused by an abnormally low amount of magnesium in the animal's blood. It occurs most often in cows grazing lush spring forage, particularly small grains and cool season perennials such as fescue. It is most common in spring-calving cows, especially if they are high producers in their third to fifth lactation.

The magnesium requirement of cows more than doubles from late gestation to early lactation (from 9 grams to 21-22 grams). A rapid change in certain components which lower the availability of magnesium (such as high applications of nitrogen and potassium fertilizers) may cause tetany to develop.

Weather may have an effect -- the greatest threat is when temperatures are between 40 and 60 degrees. Temperatures in excess of 60 degrees for a week markedly decrease the incidence of tetany.

Cattle affected by grass tetany may isolate themselves from the herd and stagger. As the disease progresses, they generally exhibit extreme nervousness, rapid breathing and muscle trembling. They may become aggressive. In the most severe stage the animal collapses with muscular spasms.

Treatment must be given rapidly, as death can occur within an hour of the onset of convulsions. Treatment consists of an intravenous injection of solutions containing magnesium, calcium and glucose. This must be done correctly! If the IV solution is administered too rapidly it may result in death.

To prevent relapse, recovered animals should be removed from the pasture and fed a hay/concentrate mixture supplemented with magnesium oxide for at least a week. Consult a veterinarian familiar with your herd about treatment procedures, and whether you should keep emergency medication on hand.

Cows that don't get enough magnesium but don't have grass tetany are less likely to breed back on time. Cattle do not store magnesium in their bodies, and must consume some every day.

Breeders in low-mag regions should be concerned with preventing grass tetany. About 2 ounces of magnesium oxide (22 grams of magnesium) is recommended to meet the needs of lactating beef cows. Since legumes are higher in magnesium than grasses, feeding cows legume hay during the early spring may supply some magnesium.

Cows grazing spring grass should have magnesium in their mineral mixture. In high risk situations it may be supplied in a supplement. Cows are not fond of magnesium. They will find the supplement mixture more palatable when it contains molasses, soybean meal, or similar tasty feed.

Coccidiosis

Coccidiosis is caused by a parasite that is as common in most regions of the country. It can be carried without much effect in healthy, mature cattle -- but can actually be lethal in a stressed animal (as at weaning) or one weakened by an infection, and is considered the fifth most important bovine disease in the U.S.

There are many species of coccidia that affect just about everything warm-blooded from chickens and guinea pigs to dogs, cats and cattle. The one-celled coccidiae parasites hazardous to bovines are Emeria Bovis and Eimeria Spearnii.

The various coccidiae do not cross hosts. That is, coccidia in chickens is not the same species that infests cattle. But for what it's worth, some veterinarians have indicated that if your land has harbored chickens, your cattle may be at risk.

Though the parasite thrives in warmth and damp, anything in contact can be contaminated with the oocyst and freezing does not eliminate it. Oocysts may be ingested when cattle drink from ponds, streams or puddles, or when hay is fed on the ground. Literature on coccidia indicates that the parasite's eggs can remain dormant on our land for many years, or can travel great distances in streams and rivers.

The life cycle is complex. Animals ingest the oocyst, which is covered by a protective shell and is resistant to physical elements or chemical and bacterial actions. The oocyst must undergo sporulation outside the body before becoming infective. The process takes 2 to 3 days and results in formation of eight infective sporozoites within each oocyst.

As the parasite multiplies in the host animal it attacks and destroys the intestinal lining. Ingestion of 1000 sporulated oocysts has the potential for the destruction of up to 24 billion intestinal cells in the host. The first symptom of infestation is persistent diarrhea, advancing to bloody scours if untreated. A small sample of feces can be analyzed by your veterinary clinic to pinpoint whether coccidia is the problem.

To prevent the parasite from gaining a foothold in your herd you may routinely spike your water troughs with Amprolium, Decoquinate or Sulfaquinoxaline in dosages recommended by your veterinarian, or purchase a stock feed containing these preventatives.

If you have identified a case of coccidia infestation, treatment consists of segregating the affected individual from the herd, cleaning its stall daily and keeping it *dry*, feeding above the ground and treating drinking water as mentioned above.

BSE

So much has been written about Bovine Spongiform Encelphalopathy (BSE, 'mad cow disease') that we will only note here scientists' theories that during the course of the disease normal prions in the brain are apparently transmuted to aberrant, that transmission appears to be via ingestion of infected matter present in the brain and/or spinal cord of afflicted animals, that the scourge may jump species (*scrapie* in sheep, *BSE* in cattle, *n. v.Creutzfeldt-Jakob* in man), and that incubation periods may be 3 or more years.

Protective/preventative measures the government has taken included identifying and condemning or monitoring all animals imported since the mid-1980s, banning new imports from affected areas, banning use of beef byproducts in livestock feed, and ruling out blood donations from persons who have lived in Europe within the last 10 years (though there is no evidence that this disease may be transmitted via blood, or semen, or embryos).

Johne's

Johne's (pronounced *yo-knees*) is a disease in cattle and some other ruminants caused by *Mycobacterium avian subspecies paratuberculosis* (*M.paratuberculosis*), a relative of the bacteria that causes tuberculosis. In cattle the bacteria grow and multiply in the intestinal tract and are present in feces, the primary route of exposure to other animals. Calves may be infected via the colostrum of infected dams.

Over a number of years infected animals suffer damage to the digestive tract, resulting in chronic diarrhea and a loss of body condition. The incubation period may be as long as 10 years, but most cows show signs of the disease during their second or third lactations.

Veterinarians note that the disease was seen primarily in dairy animals until recent years, when a growing number of cases have been reported in beef herds. It's estimated that 8 percent of U.S. beef herds may have some occurrences of the disease, and Johne's is reportedly present in up to 64 percent of dairy cattle herds. Unfortunately, diagnosing Johne's definitively requires either one to four months for feces sample cultures to grow, or a post mortem autopsy. Newer, faster tests from blood samples are quite reliable on *positives*, a great deal less so on *negatives*.

Despite the inexactitude of test results some states have instituted voluntary testing for Johne's, and to safeguard your herd you may elect to test annually. Certainly, if you notice persistent diarrhea and debilitation in a mature animal, it's a good idea to test for Johne's.

Hypotrichosis

Sue Drew, Awendaw, SC

HYPOTRICHOSIS is a genetic (inherited) disease in certain breeds of cattle including Belties. It is usually observed at birth when the calf lacks patches of hair or has thin, fine, straight, light gray hair on its stomach and legs. As the calf grows, the coat may grow almost naturally or not at all, but the pink skin will always show through the underside of the belt.

A DNA test that can be run on hair samples has been developed for identifying belties that carry the gene for hypotrichrosis. Test kits for hypotrichosis can be secured by contacting the Executive Director of the Belted Galloway Society at executivedirector.bgs@beltie.org or by phone at 608-220-1091. The Executive Director will fill out the test application based on the information provided. The kit, with sampling and mailing instructions will be forwarded to the owner by the director after receiving it from the laboratory at UC Davis.

Toxic Plants

The commonly encountered plants listed below are toxic to cattle and may cause illness or even death. Controlling serious infestations of toxic plants in your pastures and woodlands may be necessary toward protection of your herd. However, the best defense against toxicity is good pasture management. Animals with sufficient nutritious forage will generally tend to avoid the less palatable noxious weeds.

Arrowgrass	Groundsel	Mayapple
Brackenfern	Halogeton	Milk Vetch, Poison Vetch
Broom Snakeweed	Hemlock, Poison	Milk Vetch, Timber
Cherry, Black	Hemlock, Water	Milkweed
Cherry, Choke	Horse Nettle & Buffalo Bur	Monkshood
Cocklebur	Horsetail, Horsebrush	Nightshade, Black or Deadly
Death Camas	Hounds Tongue, Beggar's Lice	Nightshade, Bittersweet
Devil's Potato	Iris, Rocky Mountain	Pine, Ponderosa
Dogbane, Rubber Vine	Jimsonweed, Thornapple	Pine, Western Yellow
Goat's Rue	Jointfir, Scouring Rush	Pokeweed, Inkweed
Goatweed, Klarnathweed	Larkspur	Prince's Plume
Greasewood	Locoweed and Pointloco	St. Johnswort
Ground Cherry	Lupine, Bluebonnet	Yew

Other hazards:

Alfalfa, normally considered premier forage, can be hazardous to bovines under certain conditions. Alfalfa may cause ruminant bloat if harvested immature or after a frost. *Symptom:* Abdominal bloating due to trapped gas in the rumen. If caught in time, the bloat can be treated with anti-bloat products such as poloxalene.

White or yellow sweetclover becomes toxic when improperly cured. Dicoumarin, which prevents blood from clotting, is synthesized from coumarin in moldy hay or silage. Large amounts will produce signs of poisoning within two to eight weeks. *Symptoms:* Swellings on any part of the body due to fluid accumulation, most commonly on either side of the vertebral column, shoulders, thighs, neck and chest. Visible membranes may turn pale, the animal becomes dull and stiff. Pulse becomes fast and weak just prior to death.

V. Belted Galloway Society, Inc.

The Belted Galloway Society

The first recorded importation of Belted Galloway stock to the U.S. occurred in 1939 when a dozen bred heifers and a bull were transported to Mrs. McLean at East Kortright, New York. About ten years later Harry A. Prock of Hapwood Farm in Whitemarsh, Pennsylvania began importing purebred stock from the U.K. Mr. Prock founded the American Belted Galloway Breeders Association July 1, 1951 along with H. Gordon Green of Quebec, Canada and Charles C. Wells of East Lansing, Michigan. Belties were exhibited at the Ohio State Fair by Mr. Prock in 1952.

A.H. Chatfield, Jr. of Rockport, Maine joined the Association as the fourth member on December 10, 1953. Two new members were added in 1956, Fred H. Johnson of Summitville, Ohio and Milton A. Horner of New Bern, North Carolina. The Association grew during the late 1950s when General James A. Van Fleet enrolled and began acquiring stock for Withlachoochee Farm in Florida, later Sleepy Creek Farms in Virginia.

On January 11, 1964 the Association incorporated in Niota, Tennessee under the name BELTED GALLOWAY SOCIETY, INC. The Society's charter is preambled, "The object is to promote the Belted Galloway breed of cattle, to preserve the purity of the breed by maintaining pedigree records and data, to disseminate information relative to said breed of cattle, and to carry on all legal and proper activities to effectuate the primary purpose of the corporation."

Fred Johnson and General Van Fleet held the first public auction of Belted Galloways in America at Summitville, Ohio in 1967. Mr. Johnson no longer maintains a Belted Galloway herd, but continues to be one of the world's largest Angus breeders.

Until his death in 1999 A.H. Chatfield, Jr. bred some of the finest Belted Galloways in the U.S. at Aldermere Farm in Maine, providing foundation stock to numerous start-up herds. Aldermere Farm was left to the Maine Coast Heritage Trust which continues to maintain the Beltie herd.

Though the Sleepy Creek herd was dispersed by General Van Fleet in the mid-1980s, the late H. Gordon Green's Green Arpents herd in Quebec remains in existence, managed by Cheryl Johnston Green.

Upon the death of Charles C. Wells, the organization's first Secretary, Meda McCord of Summitville, Ohio was elected Secretary/Treasurer. Meda's efficiency and helpfulness were assets to the fledgling Society, and membership approached 150 nationwide by 1985 when she retired the post.

The organization has continued to grow during the tenures of subsequent Secretary/Treasurers Mary C. McClellan of Leeds, Alabama; Joanne Huff-Ritts of Potts Camp, Mississippi; Christine Moore of Linville, Virginia; Laura Glassmann of Bendersville, Pennsylvania; and current holder Dr. Victor Eggleston of New Glarus, Wisconsin.

Membership as of March 2012 is approximately 860, and the registered or recorded Belted Galloway population in the country is over 13,000.

To register or transfer Belted Galloways membership in the Society is required. Currently there are four types of membership available. The membership types are Life, Regular, Junior and Associate and fees associated with membership can be found on our website at www.beltie.org. (Associate memberships are non-voting and receive mailings only. Members possessing this type of membership are not able to register animals.)

The term REGISTRATION is used when an animal enters the Society's Herd Book. Properly marked animals of either sex with purebred parentage are eligible, as are properly marked upbred females which are 15/16 Belted Galloway and mismarked purebred females. "Properly marked" is defined as Black, Dun or Red with a continuous, uninterrupted white belt encircling the body and no extraneous white anywhere on the animal, with the exception that females may be registered if they carry minor white on a foot below the level of the dewclaws. Females with this type of marking are designated with a "W" placed behind their registration number.

The term RECORDED applies to entries in an Appendix to the Herd Book. The Appendix holds purebred but mismarked females as well as crossbred females which are 1/2, 3/4 or 7/8 Belted Galloway. Crossbred recorded females can be achieved by using a registered Belted Galloway bull and a solid colored, polled, beef type female OR a registered Belted Galloway female with a solid colored, polled, beef type male. See Rules, Section I Rule 4. Mismarked females born after January 1, 2017 are entered in the Herd Book as registered and have a designated lettering system to indicate types of mismark (see Tracking System).

Officers and Council

1951-55	Harry A. Prock, President. H. Gordon Green, *Vice President.* Charles C. Wells, *Secretary.*
1956-62	Harry A. Prock, President. H. Gordon Green, *Vice President.* A.H. Chatfield, Jr., *Vice President. Charles* C. Wells, *Secretary.*
1963-67	Fred H. Johnson, President. Harry A. Prock, *President Emeritus.* A.H. Chatfield, Jr., *Vice President.* Meda McCord, *Secretary.*
1968-69	A.H. Chatfield, Jr., President. Harry A. Prock, *President Emeritus.* Harry T. Bum, *Vice President.* General James A. Van Fleet, *Vice President.* Meda McCord, *Secretary/Treasurer.*
1970-71	A. Mims Wilkinson, Jr., President. Harry A. Prock, *Founder.* General James A. Van Fleet, *Honorary Chairman.* Fred H. Johnson, *Vice Chairman.* Virginia Wells, *Vice President.* Victor Zerbs, Jr., *Vice President.* Meda McCord, *Secretary/Treasurer.*
1971-74	Victor Zerbs, Jr., President. Harry A. Prock, *President Emeritus.* Virginia Wells, *1st Vice President.* Albert Tietig, *2nd Vice President.* Meda McCord, *Secretary/Treasurer.*
1975-76	Ernest Cutter, President. Virginia Wells, *1st Vice President.* Albert Tietig, *2nd Vice President.* Meda McCord, *Secretary/ Treasurer.*
1977-79	A.H. Chatfield, Jr., President. William Craig, *1st Vice President.* Vel Gardner, *2nd Vice President.* Meda McCord, *Secretary/ Treasurer.*

1980-81 William Craig, President. General James A. Van Fleet, *1st Vice President.* Fred Johnson, *2nd Vice President.* Meda McCord, *Secretary/Treasurer. Council:* James Burn, Vel Gardner, James Hendrie, Richard Stein, Albert Tietig, Virginia Wells.

1982 Albert A. Tietig, President. James Burn, *1st Vice President.* Virginia Wells, *2nd Vice President.* Meda McCord, *Secretary/ Treasurer. Council:* William Craig, Jane Faul, Fred Johnson, James Hendrie, Rowland Richards, General James A. Van Fleet.

1983 Albert A. Tietig, President. O.A. Cargill, *1st Vice President.* Virginia Wells, *2nd Vice President.* Meda McCord, *Secretary/ Treasurer. Council:* James Bum, William Craig, Jane Faul, James Hendrie, Fred Johnson, Andre LeMaistre, Rowland Richards, General James A. Van Fleet.

1984-85 James E. Burn, President. O.A. Cargill, *1st Vice President.* James Hendrie, *2nd Vice President.* Meda McCord, *Secretary/ Treasurer. Council:* Bill Harter, Andre LeMaistre, Mary McClellan, Rowland Richards, Albert Tietig, Virginia Wells.

1986 O.A. 'Buck' Cargill, President. Sloan Rainwater, *1st Vice President.* Bill Harter, *2nd Vice President.* Mary McClellan, *Secretary/Treasurer. Council:* Vel Gardner, Andre LeMaistre, Rowland Richards, Arthur Shaffer, Nancy Suit, Albert Tietig.

1987 Sloan Rainwater, Jr., President. Andre LeMaistre, Vice President. Mary McClellan, *Secretary/Treasurer. Council:* Ernest Cutter, Uel Gardner, Bill Harter, Arthur Shaffer, Nancy Suit, Albert Tietig.

1988 Sloan Rainwater, Jr., *President*. Andre LeMaistre, *Vice President*. Mary McClellan, *Secretary/Treasurer. Council*: Ernest Cutter, R.K. Galloway, John P. Gerli, Bill Harter, Arthur Shaffer, Nancy Suit, Albert Tietig.

1989 P. Andre LeMaistre, *President*. Bill Harter, *Vice President*. Mary McClellan, *Secretary/Treasurer*. *Council:* Ernest Cutter, Jane Faul, John E. Gerli, R.K. Galloway, Scott Lindemann, Sloan Rainwater, Nancy Suit.

1990 P. Andre LeMaistre, *President*. R.K. Galloway, *Vice President*. Mary McClellan. *Secretary/Treasurer*. *Council:* Ernest Cutter, Jane Faul, John E. Gerli, Scott Lindemann, Eric Macy, Sloan Rainwater, Nancy Suit.

1991 R.K. Galloway, Jr., *President*. Nancy Suit, *Vice President*. Mary McClellan, *Secretary/Treasurer*. *Council:* Richard Anderson, Ernest Cutter, Howard Ellis, Jane Faul, John E. Gerli, Andre LeMaistre, Eric Macy.

1992 R.K. Galloway, Jr., *President*. Nancy Suit, *Vice President*. Mary McClellan, *Secretary/Treasurer*. *Council:* Richard Anderson, A.R.C Butson, Howard Ellis, Jane Faul, John E. Gerli, Andre LeMaistre, Eric Macy.

1993 Nancy Suit, *President*. John E. Gerli, *Vice President*. Mary McClellan, *Secretary/Treasurer*. *Council:* Richard Anderson, A.R.C. Butson, Howard Ellis, Jay Friedman, R.K. Galloway, Jerry Jurkowski, Eric Macy.

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1998 Richard C. Anderson, *President*. Marlin Sherbine, *Vice President*. Joanne Huff-Ritts, *Secretary/Treasurer*. *Council*: Luke Altman, Charles Batten Robert Boyer, Joyce Eggleston, John Mcllwraith, Andy Vaught.

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2008 Mark Keller, *President*. Robert Flynn, *Vice President*. Laura Glassmann, *Secretary/Treasurer*. *Council:* Vic Eggleston, Michael Caldwell, Ron Howard, Robert Flynn, Gayle Cerullo, Steven Silberberg, Loren Olsen.

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Harry T. Burn Award

This award was established and funded in 1984 by his widow in memory of the late Harry T. Burn of Tennessee, one of the Society's early and very dedicated breeders. His nephew, James E. Burn, was President of the Society when he announced that the award, a large perpetual trophy and an engraved individual plaque, would be given to persons singled out as having provided outstanding support and promotion to the Belted Galloway breed. The award is not annual; rather, it is presented from time to time as merited.

1984 General James A. Van Fleet, Sleepy Creek Farm, VA.
Presented at Brandenburg, KY. The General's enthusiasm and dedication to Belties continued until his death in 1992, aged 100.

1985 A.H. Chatfield, Jr., Aldermere Farm, Rockport, ME
Presented at Rockport, ME. "Chat" served the Society in multiple capacities until his death in 1999 aged 99, and over the years provided excellent foundation stock to many newcomers.

1990 Albert H. Tietig, Stonecroft Farm, Georgetown, OH
Presented at Louisville, KY. Worked diligently to promote the breed, served in many offices and committees, and until shortly before his death, attended every Society function.

1995 Mary C. McClellan, Cedar Valley Farm, Leeds, AL
Presented at Fearrington Center, NC. Worked tirelessly during 9- year tenure as Secretary to build the Society and further the breed.

2001 Richard C. Anderson, Anderson Hill, West Rutland, VT
Presented at Ennice, NC for long-time support of the breed via exhibits and shows; held many offices and served on numerous committees; worked particularly toward breed promotion.

2003 Jane Faul, Paradise Bottom Farm, Battletown, KY
Presented at Lebanon, CT for dedication to member communications and promotion of the breed.

2005 Marlin Sherbine, Highland Farms, Somerset, PA
Presented at Nashville, TN for long time support of the breed and the stability of the Belted Galloway Society and Belted Galloway Foundation.

2008 Sue Drew, Driftwood Plantation, Awendaw, SC
Presented at Awendaw, SC for an undying and continual love and support of the Belted Galloway breed, Beltie Youth Group and Belted Galloway Foundation stretching over many years.

2010 Kathi Jurkowski, Klover Korners Farm, Rockton, IL
Presented at Baraboo, Wisconsin for outstanding support and promotion of the Belted Galloway breed and her tireless support of the Beltie Youth Group.

2012 Dr. Victor Eggleston, Havabelt Galloways, New Glarus, WI.
Presented at Louisville, KY for outstanding support and promotion of the Belted Galloway Breed.

2013 Ron Howard, Aldermere Farms, Rockport ME.
Presented at the Fryeburg National Sale, Fryeburg, ME for outstanding support and promotion of the Belted Galloway Breed.

2015 Jon Bednarski, Sherwood Acres, LaGrange, KY
Presented at Louisville, KY for outstanding support and promotion of the Belted Galloway Breed

2016 Andre LeMaistre, Mitchell Ledge Farm, Freeport, ME
Presented at Louisville, KY for longtime, outstanding support and promotion of the Belted Galloway Breed

2017 Joyce Eggleston, Havabelt Galloways, New Glarus, WI
Presented at the National meeting, Milwaukee, WI for outstanding support and promotion of the Belted Galloway Breed

2018 Michelle Ogle, Southdown Farm, Bedminster, NJ for longtime, outstanding support and promotion of the Belted Galloway Breed.

2022 Victor Eggleston, Haveabelt Galloways, New Glarus, WI
Presented in Dubuque, IA for over a decade of service as Executive Director and for his continuous support of the breed and membership.

Annual Meeting Hosts

Members of the Belted Galloway Society appreciate the hosts who graciously opened their homes and farms to Society gatherings and arranged seminars, clinics, speakers and presentations which contributed greatly toward our education in cattle husbandry.

1967, Oct.	Fred H. Johnson, SUMMITCREST FARMS, Summitville, OH
1968, Oct.	A.H. Chatfield, Jr., ALDERMERE FARM, Rockport, ME
1969, May	Harry A. Prock, HAPWOOD FARM, Philadelphia, PA
1969, Nov.	Gen. James Van Fleet, SLEEPY CREEK FARM, Cross Junction, VA

1970	John G. DuPuis, Jr., WHITE BELT RANCH, Port Mayaca, FL
1971, Apr.	A. Mims Wilkinson, Jr., CEDAR GROVE FARM, Atlanta, GA
1972, Mar.	Gen. James A. Van Fleet, WITHLACOOCHEE RANCH, Polk City, FL
1973, May	A.H. Chatfield, Jr., ALDERMERE FARM, Rockport, ME
1974, Apr.	Gen. James A. Van Fleet, SLEEPY CREEK FARM, Cross Junction, VA
1975, Oct.	Barbara Blackwell, KEECREST FARM, Ilderton, Ontario, CAN
1976, May	Gen. James A. Van Fleet, SLEEPY CREEK FARM, Cross Junction, VA
1978, May	A.H. Chatfield, Jr., ALDERMERE FARM, Rockport, ME
1979, Jun.	Richard Stein, SWATARA SPRINGS FARM, Harrisburg, PA
1980, May	Fred H. Johnson, SUMMITCREST FARMS, Summitville, OH
1980, Oct.	James E. Bum, EDGEWOOD FARMS, Niota, TN
1981, May	Albert A. Tietig, STONECROFT FARM, Georgetown, OH
1981, Oct.	Gen. James A. VanFleet, SLEEPY CREEK FARM, Cross Junction, VA
1982, May	O.A. 'Buck' Cargill, LAZY B BAR RANCH, Oklahoma City, OK
1982, Oct.	Mary C. McClellan, CEDAR V ALLEY FARM, Leeds, AL
1983, Oct.	William & Wilma Craig, CRAIGLAND FARM, Gastonia, NC
1984, May	Jane Faul, PARADISE BOTTOM FARM, Battletown, KY
1984, Sept.	Lowell & Billy Harter, ROLLING GREEN FARM, Hagerstown, IN
1985, May	Dr. R.K. Galloway, GALLOWAY FARM, Gallatin, TN
1985, Oct.	A.H. Chatfield, Jr., ALDERMERE FARM, Rockport, ME
1986, Oct.	Sloan Rainwater, Jr., DAISY HILL FARM, Jonesboro, AR
1987, May	Dan & Donna Sutherland, DOUBLE D FARM, Mauckport, IN
1987, Sept.	Art Shaffer & Marvin Suit, KIRKABRAE FARM, Flemingsburg, KY
1988, Sept.	William & Wilma Craig. CRAIGLAND FARM, Gastonia, NC
1989, Oct.	Scott Lindemann, TIMBER CREEK FARMS, Woodstock, IL
1990, Nov.	James Lush and Jane Faul at NAILE, Louisville, KY
1991, Oct.	Dr. A.R.C. Butson, MAPLE BRAE FARMS, Hamilton, Ont., CAN
1992, Oct.	William C. White, SNOW HILL FARMS, Thomson, GA
1993, Sept.	Jerry Jurkowski, KLOVER KORNERS FARMS, Rockton, IL
1994, Sept.	Richard C. Anderson, ANDERSON HILL FARM, West Rutland, VT
1995, Sept.	Robert Flynn, FEARRINGTON CENTER, Pittsboro, NC
1996, Sept.	Marlin C. Sherbine, HIGHLAND FARM, Somerset, PA
1997, Oct.	Cason, Coleman, Fleetwood, Ritts & Tidwell at Memphis, TN
1998, Oct.	Sue & Thomas E. Drew, DRIFTWOOD PLANTATION, Awendaw, SC
1999, Oct.	Barnie Geers & Mel Mieske, GEERS FARMS, Cadillac, MI
2000, Aug.	Jonathan Kagan, UPHILL FARM, Poughkeepsie, NY
2001, Oct.	Jim & Betty Becher, BITTERSWEET FARM, Ennice, NC
2002, Sept.	Maine Coast Heritage Trust, ALDERMERE FARM, Rockport, ME
2003, Sept.	Lisa Wyman & Wayne Budney, FOUR WINDS FARM, Lebanon, CT
2004, Sept.	International Conference, WORLD BEEF Expo, Milwaukee, WI
2005, Oct.	The Hermitage, THE HERMITAGE, Nashville, TN
2006, Oct.	Loren Olsen & Doug Mortimer, MALABAR FARM, Des Moines, IA
2007, Oct.	The Downing Family, MEADOWVIEW FARM, Lyndonville, VT
2008, Oct.	Sue & Thomas Drew, DRIFTWOOD PLANTATION, Awendaw, SC
2009, Oct.	Jon & Tessa Rozelle, SILVER ANTLER RANCH, Flagstaff, AZ
2010, Oct.	GLBGA and the John Hamm Family, WISCONSIN RIVER BELTEDS, Mauston, WI
2011, Oct.	Bob & Sharon Blanchard, LITTLE EVERGLADES RANCH, Dade City, FL
2012, Nov	National Show, Louisville, KY
2013, Nov	National Show, Louisville, KY

2014, Nov	National Show, Louisville, KY
2015, Nov	National Show, Louisville, KY
2016, Nov	National Show, Louisville, KY
2017, Sept.	World Beef Expo, West Allis, WI
2018, Nov.	National Show, Louisville, KY
2019, Nov.	National Show, Louisville, KY
2020, Nov.	National Show, Louisville, KY
2021, Nov.	National Show, Louisville, KY
2022, Nov.	National Show, Louisville, KY
2023, Nov.	National Show, Louisville, KY
2024, Sept	GLBGA Field Days, Mauston WI
2025, Oct	NEGG Winter Meeting, Aldermere Farm, Rockport ME
2026, Nov	National Show, Louisville KY

Regional Beltie Groups

New England Galloway Group
Website: www.beltedgallowaygroup.com

Formed in 1995, this regional group plans two or more informal meetings annually featuring educational clinics and potluck lunches. Their emphasis is on providing support and encouragement to youthful breeders and showmen, and they have instituted a Heifer Project to encourage youth interest in the breed. They are also responsible for the National Belted Galloway Sale held in April at Fryeburg, Maine.

Great Lakes Belted Galloway Association
Website: www.greatlakesbeltie.com
GLBGA, formed in 1992, holds field days and educational clinics, exhibits animals at many fairs and expositions in the Great Lakes region, maintains a website, and sponsors the Belted Galloway Show at the annual Wisconsin World Beef Expo at Milwaukee in late September. The GLBGA also sponsors the annual Blow & Go Show in northern Illinois in July and a new show in Iowa in August. A newsletter called Great Lakes Belted Galloway News is published quarterly.

Southwest Belted Galloway Association
Website: http://southwestbeltedcattle.com

Texans formed this group initially in 2010. In 2013 the organization changed its name and expanded its membership which is now made up of breeders and Beltie fans from all over the southwest. We are here to serve this great breed of cattle and introduce them to other ranchers and interested parties.

Western Belted Galloway Association
Website: www.beltedgalloway.org

Westerners formed their regional group in early 1995. The group meets annually, usually in October, promotes the breed at various Western shows and exhibits, publishes a quarterly newsletter called The Belt-Line, and has home pages on Internet. Beltie facts, a member directory, current events and membership forms are available on the regional website.

Registration &. Transfer Procedures

Since 2000 the Society's office has offered members new Registration and Recordation Certificates which include 5-generation pedigrees on the reverse.

Currently, animals are registered for the Society through Digital Beef.

To insure accurate records it is essential that members are precise when filling in their applications.

Registration applications may be submitted by Regular, Life or Junior members in good standing. Associates are not eligible for this privilege. Transfers may be accomplished to a non-member for the normal fee, but if from a non-member there is a penalty attached to the fee.

In 2009, the Society began a contract agreement for records processing with the Canadian Livestock Records Corporation (CLRC). In 2024, the Society moved records and processing of memberships and registrations to Digital Beef. For members' convenience, forms for registration, transfer and new member applications are available online at www.beltie.org, or can be done directly on the Digi.

Registrations

Every blank on the application must be filled in, the application must be signed, and proper fees must accompany the registration form.

The animal's name must be limited to 35 characters including farm prefix and designations (AI) and/or (ET) if applicable, or (TW) if a twin. Farm name prefix must appear the same way on each animal in your herd. Once you elect to use Smith's Rosemary, don't switch to Smith Hill Rosemary.

The owner of the cow at the time the calf is born is the only person eligible to register that calf and should be designated as the owner of the dam at the time the calf was born. The breeder is the owner of the dam at the time she was bred.

If the calf is the product of a semen purchase (AI), a bill of sale signed by the owner of the bull semen may accompany the application. If a bull was leased, his owner must sign the bottom of the application. In addition, calves resulting from (ET) procedures must be DNA tested through the Society prior to being eligible for registration.

Females are accepted into 50% appendix recordation that result from the matings of registered Belted Galloway Dams with solid colored, beef type, polled sires or registered Belted Galloway sires with solid colored, beef type, polled dams. See Rule 4 (V-

The blank for "base cow" refers to the first-cross cow bred to a Belted Galloway bull to produce an Appendix 1/2 calf. Write N/A (not applicable) if the cow was either registered or recorded by our Society.

A bull must be correctly marked to enter the Herd Book, and both his sire and dam must be purebred and registered.

Herd Books

The Herd Book is divided into three sections -- Bulls, Cows and Appendix. Farms are listed in each section in alphabetical order with animals registered to the first owner's farm appearing below their name.

The Belted Galloway Society has published three hardbound Herd Books. Volume I covers registrations years 1951-1971, Volume II includes years 1971-1981, and Volume III includes years 1981-1991. The three Herd Books are available through the Belted Galloway Society's Executive Director's office.

Transfers

Legibly fill in the animal's name, correct registration number, sex, date of sale and date the application is submitted. Enter new and old owner names, addresses and membership numbers. If either party is a non-member, note this in the "number" blank.

If the animal is a bred female or exposed female, it is required that the owner of the bull fill in and sign the bottom of the form, indicating served dates ("pasture" if not precisely known), the bull's name and number, and indicate whether the breeding was natural or artificial.

The animal's **original registration certificate** and proper fees must accompany the application for transfer or an emailed picture with the word VOID clearly written sent to the Registrar.

Signing in New Members

When animals are sold to newcomers to the breed it is a real plus if you purchase a Society membership for them when you are transferring ownership of the animals.

The new enthusiasts obtain this Breeder's Manual in their 'new member packets' and begin receiving newsletters immediately.

Quite a few of our breeders perform this thoughtful service for their buyers, who are grateful to be quickly included 'in the loop.'

DNA Testing

The Society's Rules require DNA testing of embryo donor cows and hypotrichosis testing of donor cows flushed after January 1, 2018, bulls from which semen is drawn for sale, calves resulting from embryo transfer (ET) procedures and DNA and hypotrichosis testing of bulls born after January 1, 2018. In all cases sire owner (when other than the person registering a calf) must provide a signature verifying the sire of the calf to be registered.

When a bred dam is sold this is accomplished by sire owner's signature on the Transfer Application form. When a bull is leased, it will be accomplished by sire owner signing the Registration Application form. Registering calves that are the product of artificial insemination must meet the following requirements:

DNA Testing Requirements

(1) To register an A.I.-produced calf when you are not the owner of the bull, a bill of sale of semen signed by the owner of the bull semen may accompany the Application for Registration.
(2) Semen bill of sales are not required for registering ET calves.
(3) All calves resulting from embryo transfer procedures must have a DNA test completed through the Society prior to submitting a registration application.
(4) All bull calves born after January 1, 2018 must be DNA and hypotrichosis tested before they can be registered.

DNA Testing Procedure

1. When registering an animal DNA and hypo testing can be requested during the process with Digital Beef or by contacting the Belted Galloway Society Executive Director to request a DNA kit, providing the animal's full name and number if it has been registered, date of birth, color, sex, sire & dam with their registration numbers.
2. Upon receipt of the kit you must
    a. Read all instructions carefully.
    b. Collect tail hair sample or a straw of semen and send to the address shown.
    c. Send the signed form with appropriate fees to the Registrar. Payment can also be made directly on Digital Beef.
3. When the test is complete the lab will send the results to the Belted Galloway Society Executive Director, who will notify the owner of the results and place the test report on file.

The Tracking System

The 'Tracking System' adopted in 1995 was recommended to Council by the Long Range Plan Committee working with breed consultant Dr. A.L. 'Ike' Eller, Professor of Animal Sciences Emeritus, Virginia Technical University, Blacksburg, VA.

Since January 1, 1996 our animals' registration numbers carry extra alpha characters to provide more definitive identification of ancestry and markings (see Rules, Section II, Registration).

In the Belted Galloway Society's Herd Books I, II and III and through 1995 Appendix females' recordation numbers were written to designate the degree of Belted Galloway blood as follows:

APPOOOOx3/4 indicated the animal was three-fourths Belted Galloway, while APPOOOO without a percentage suffix designated a mismarked purebred female.

Instead of APP as prefix to Appendix animals' numbers, the new designation is simply 'A'. Two-character suffixes such as AN for Angus indicate the breed of the base (first-cross) cow if she was a **registered** animal, or XX appears if she was not.

All animals now carry B, D or R immediately following their registration numbers to indicate color Black, Dun or Red. Purebred females with minor white below the level of the dewclaws enter the Herd Book with W tacked onto the number.

The number 00002-D,W indicates the animal is in the Herd Book proper, is Dun, and has white on one or more feet below the level of the dewclaws.

The number A00002-B,3/4BGAN indicates this Appendix female is Black, is three-fourths Belted Galloway and one-fourth Angus.

Bred up females eligible for entry in the Herd Book are designated PB. Thus, 00002-B,PBXX would indicate a 15/16ths Black female bred up in four generations from an unregistered dam of another breed. The number 00002-D,PBCH translates to a 15/16ths Dun female bred up from a Charolais first-cross cow.

Additional information relative to mismarking is indicated by the following designations on Appendix-recorded females and mismarked purebred females starting January 1, 2017.: Ml = incomplete belt; M2 = no belt, M3 = white feet (at or above the level of the dewclaws), and M4 = white elsewhere on the body.

A note on terminology: Appendix females are never referred to as 'registered.' Rather, they are ‘recorded.’

Selling Breeding Bulls

To avoid misunderstandings or disappointments when buying or selling a bull, it's wise to confirm in writing exactly what is covered in the purchase. A sample BILL OF SALE appears on the next page. The Bill of Sale may be used as is, or may be adapted to fit your particular situation. Below are some hints and guide lines prepared by Steven Silberberg with the Long Range Plan Committee to help effect a smooth transaction.

Guidelines and Issues

a. Weigh bull to document condition prior to sale.
b. Limit number of cows to be serviced based on age of bull:

12-18 months:	4-6 cows
18-24 months:	6-l0 cows
24-32 months:	10-15 cows
32 + months:	18+ cows

c. Provide data on bull's current feed program.
d. Bull should be delivered with health certificate and breeding soundness certificate, if a condition of sale.
(7) Seller must disclose if bull has been collected and if semen will be offered for sale by Seller.

(8) Additional sale recommendations:

a. Establish warranty/return period – *e.g.* 6 months.
b. Seller must have opportunity to prove bull is a breeder if returned within 6 months.
c. If bull is returned to Seller it must be in good health.
d. If bull fails as a breeder, Seller will [ ] refund the full purchase price [ ] replace animal [ ] settle difference between market value and purchase price.
e. Seller to have up to 6 months to prove bull is sound.
f. If bull is returned, Buyer to pay delivery for return.

Leasing

Leasing has benefits and disadvantages.
It's recommended that you --

(1) Weigh bull both prior to and after lease to determine his condition.
(2) Check Lessee's property for proper fencing, adequate clean water supply, and that herd is free of contagious diseases prior to entering into a lease.
(3) Discuss who is responsible in the event of loss or catastrophe and vet bills. Distinguish responsibility if loss is due to accident or illness.
(4) Recognize the benefits of leasing only halter trained bulls.

-- Sample --

Bill of Sale Form for Bulls

The undersigned, _____ ("Seller")

_____ (address)

does hereby sell and assign to _____ ("Buyer")

_____ (address)

the following Belted Galloway Bull Registration # _____

Tattoo #:_____ DOB:_____ Color: _____

This Bull is sold [ ] with [ ] without a breeding warranty.

Check as applicable:

a. [ ] Tested as fertile with no further warranty

[ ] Guaranteed fertile

[ ] Guaranteed to settle animals with

[ ] refund [ ] replacement within 6 months

b. [ ] Bull is guaranteed registerable as a purebred in:

[ ] the United States [ ] Canada [ ] other

Check One:

[ ] Risk of loss shall remain with the party in possession.

[ ] Risk of loss shall be with Seller until payment is made.

[ ] Risk of Loss shall be with Seller until delivery.

[ ] Risk of Loss shall be with Buyer upon purchase

Seller [ ] retains [ ] does not retain semen sale rights [ ] domestically [ ] internationally

_____ (Seller) _____ (Date)

_____ (Buyer) _____ (Date)

Belted Galloway Society, Inc.
BY-LAWS

Amended and adopted October 13, 2001

Article I. - Membership

Membership Classes:

I) Vested Life membership -- Life members under any prior Article, By-Laws and Rules of the Society shall be considered 'Vested Life Members' after September 30, 1987. No additional Vested Life Memberships will be issued after that date.

(1) Life memberships may be issued to individuals, partnerships or corporations.

II) Regular memberships -- Regular memberships may be issued to individuals, partnerships or corporations. Such memberships shall be assessed annual dues in an amount to be determined by Council.

III) Junior membership -- A Junior member shall be an individual under the age of twenty-one (21) and may be assessed annual dues as determined by Council. A Junior member shall have no voting rights and the privileges of membership shall cease on the year following his or her (21st) birthday unless converted to a Regular membership.

IV) Associate membership -- An individual, partnership, corporation or other entity having an interest in the furtherance of the Belted Galloway Society and its activities may become an Associate member. Such members shall receive mailings but have neither the right to vote nor the right to register/record.

V) Honorary membership -- Council shall have the power to grant such Honorary memberships as it may from time to time deem appropriate. Such Honorary members shall have neither the right to vote nor the right to register animals.

Privileges of Membership.

(1) Registration/recordation of animals: All Life, Regular and Junior members shall be eligible to register and/or record animals in the Herd Book and the Appendix of the Society.

(2) Voting rights: All Life and Regular members are eligible to vote on all matters to come before any meeting of the membership of the Society.

Membership Classification.

(1) Active: Regular, Associate and Junior members shall be considered active if they have paid annual dues in the current calendar year.

(2) Inactive: Regular, Associate or Junior members shall be considered inactive if they have failed to pay all appropriate membership fees when due. They may be reinstated upon payment of all fees due.

Application for Membership.

Applications for membership shall be made to the Registrar, working on behalf of the Society on the form prescribed by Council. The Council shall have the power to accept or reject applications for memberships, fix fees and establish rules covering the rights and privileges of each class of members.

As a condition of membership in the Society, each member shall agree to abide by the provisions of these By-Laws and the Rules of the Society.

Article II – General Meetings

Annual General Meeting: An Annual General Meeting of the members of the Society shall be held during the last four months of the year at a time and place selected and declared by the President or majority resolution of the Council and called by the Secretary at least fifteen days previous to the meeting.

Special General Meetings: Special General Meetings of the membership of the Society may be called by the President or when Council, by majority resolution, directs the Secretary to call such meetings. Such Special Meetings shall be held at such time and place as designated by the President or Council resolution. Notices of such Special Meetings shall be mailed to all Active members at least fifteen days prior to Special Meetings, and only business specified in such notices shall be acted upon.

Voting: Each Active member (except Junior members) of the Society (whether an individual, a partnership, or a corporation) shall be entitled to one vote. No proxies may be given. A member may cast his vote in person at any Annual or Special Meeting on any item of business requiring a vote by the general membership. Any member may also record his vote in absentia for the election of Council and for or against any proposed amendment to these By-Laws. Any vote cast in absentia shall be recorded on a ballot to be directed to the general membership so as to be received no less than thirty (30) days prior to the scheduled vote. Said ballot or a reasonable facsimile thereof shall bear the original signature of the member and shall be directed to the office of the Secretary of the Society by U.S. Mail on or before the deadline date proscribed on the official ballot. Any ballot received which is not in strict compliance with provisions of this paragraph will be disregarded.

Procedures: The proceedings of all meetings shall be conducted under Roberts' Rules of Order, except that the Council shall have the power to establish additional procedures from time to time for the conduct of elections and other business at General Meetings consistent with the Articles and By-Laws of the Society.

Quorum: An aggregation of five (5) percent of the members of the Society, meeting in response to a notice of a General or Special Meeting of members duly called, shall constitute a quorum. No business shall be transacted at any General or Special Meeting of members unless a quorum is present.

Election of Council Members: At each Annual General Meeting the members present and constituting a quorum, along with those members recording their votes in absentia, shall elect three (3) Council members for a term of two (2) years each.

The members shall also elect by separate ballot a Council member to fill each unexpired term which may exist on the Council. Six Council members shall be elected beginning at the 1987 Annual Meeting. The Council members so elected shall immediately draw lots for the length of term each member shall serve, and the results of such drawing shall be recorded in the Minutes of the meeting. At such drawing three (3) members shall be awarded terms of one (1) year and three (3) members shall be awarded terms of two (2) years.

No Council member shall be eligible for election for more than two (2) full successive terms. However, a President or Council member completing the unexpired portion of the term of a former President or Council member shall not be deemed to have served a full elected term within the meaning of this section. Only Active Life or Regular members shall be eligible for election as a member of the Council.

Nominating Committee: There shall be a Nominating Committee consisting of the last three (3) Past Presidents of the Society, the Past President who has just served as President shall be Chairman. If any of the last three Past Presidents are unwilling or unable to serve on the Committee, or is not an Active member owning cattle recorded by the Society, the President shall appoint an active member owning cattle recorded by the Society to serve in their stead.

It shall be the duty of the Nominating Committee to propose to the general membership those candidates deemed by the Committee to be qualified, capable and willing to serve the Society as members of its Council. The Nominating Committee shall make its report in writing to the President no less than sixty (60) days prior to the Annual Meeting. The President will direct the Secretary to prepare an official ballot including the names recommended by the Nominating Committee. The official ballot shall make provision for members voting in absentia to 'write in' their choice for any other qualified member. Thereafter, the official ballot shall be directed to the general membership to be received no less than thirty (30) days prior to the General Meeting. Nominations from the floor may be made at the General Meeting.

The Nominating Committee shall also propose to Council those members of Council deemed to be qualified, competent and willing to serve as President and Vice President of the Society. The report shall be directed to the President no less than thirty (30) days prior to the Annual Meeting of Council. The President shall direct the Secretary of the Society to forward copies of the Nominating Committee recommendations to each Council member no less than fifteen (15) days prior to the Annual Meeting.

Order of Business: The Order of Business at the Annual General Meeting shall be as follows:

1. Call to order.
2. Roll call.
3. Reading and approval of Minutes of preceding meeting.
4. Report of Secretary and/or Treasurer.
5. Report of Committees.

6. Other reports -- Presidents report. Council activities, etc.

7. Unfinished business.

8. New business.

9. Election of a Council member to fill each unexpired term which was not filled by an interim appointment made by the Council.

10. Election of three Council members for terms of two years each.

11. Council Report on Election of Officers.

12. Adjournment.

Article III. -- Government

The Society shall be governed by a Council elected by its members and by a President and a Vice President elected by the Council. The Council shall manage the property, affairs and business of the Society.

The Council shall have the power to establish Rules and Regulations for the conduct of the members of the Society and for the conduct of the affairs of the Society consistent with the provisions of these By-Laws. The Council shall have the authority to engage an Executive Director to assist the Council in the management of the property, affairs, and business: however, the Executive Director shall not serve in any other office.

If a Council member during his/her term of office shall disperse his/her herd and cease to be an active breeder of cattle registered or recorded by the Society, or shall fail to attend meetings, or otherwise fail to perform the duties of a council member, the Council may, after appropriate notice to such Council member, remove him or her from office and declare a vacancy.

If a vacancy develops in the Council because of death, resignation, or action taken in accordance with the preceding paragraph, it may be filled by interim appointment by the Council for the unexpired portion of the term if less than one year remains, or by appointment until election at the next Annual General Meeting of members.

When a vacancy shall occur in the office of President or Vice-President, the Council may fill such office by appointment for the balance of the unexpired term.

There shall be no provision in these By-Laws for cumulative voting or voting by proxy.

All terms of office for officers and members of the Council commence on January 1 next after their election, except that in the case of an election to fill a vacancy such term shall begin immediately upon election. All officers and members of the Council shall serve until their successors are elected and qualified.

Article IV. Council

The Council, of which a majority shall constitute a quorum, shall hold its Annual Meeting at such place as may be designated for the Annual General Meeting.

At the Annual Meeting of the Council, the Council shall each year elect from its membership a President and a Vice President. In addition, the Council shall elect a Secretary and a Treasurer, or a Secretary/Treasurer. The Secretary and the Treasurer or the Secretary/Treasurer may be members of the Council.

Regular meetings of the Council shall be held on dates to be determined by the Council.

Special meetings of the Council may be called by the President, or at the request of four Council members.

The President may, from time to time, appoint Standing or Special Committees, which may include non-members of the Council. Standing or Special Committees appointed by the President shall be charged with and limited to such responsibilities as the President shall specify. The President may upon recommendation of Council authorize formation of a foundation to support such purposes as may be proposed. Notice of the composition of any Nominating Committee appointed by the President shall be included in the official notice of the Annual General Meeting sent to the membership.

Article V. -- Officers

The officers of the Society shall consist of a President, Vice-President, a Secretary, a Treasurer or a Secretary/Treasurer elected by Council at its Annual Meeting. Only active life or regular members as provided by Article I shall be eligible as President or Vice President.

President: The President of the Society shall preside at the Annual General Meeting and all meetings of the Council and shall maintain general supervision of the affairs of the Society, report to the Annual General Meeting, make such suggestions to the membership of the Society as he/she may deem advisable, and perform the duties which usually and generally pertain to the office of the President. The President shall be a member of the Council; he/she shall have a vote in the Council only in the case of a tie.

Vice-President: The Vice-President shall, in the absence of the President, preside at the Annual General Meeting of the members and meetings of the Council. The Vice-President shall succeed to the office of the President in the case of the death, resignation, removal or incapacity of the President. The Vice- President shall be a member of the Council.

Secretary: The Secretary shall act as the chief administrative officer of the Society subject to the authority of the Council. The Secretary shall keep exact Minutes of the General Meeting and Council Meetings. In the performance of his/her duties the Secretary is authorized to expend such sums of money as the Council from time to time shall appropriate for carrying on the business of the Society, and he/she shall keep an accurate account in detail of all moneys received and paid out by him/her.

Treasurer: The Treasurer shall be the custodian of the cash funds and securities of the Society and shall deposit, invest, and disburse such funds as the Council may determine.

Secretary/Treasurer: In the event the offices of Secretary and Treasurer are combined, the holder thereof shall perform the duties and exercise the responsibilities of both offices as set out above.

Compensation of Officers: The officers of the Society shall receive such compensation as fixed by the Council. The President and Vice-President shall serve without compensation,

Auditing: The Council shall have the power to cause such audits of the accounts of the Society as it deems necessary.

Immediate Past President: The immediate Past President who is an active member of the Society shall be a member of the Council.

Article VI. – Executive Director

The Council shall designate an Executive Director of the Society. The Executive Director shall be an ex-officio member of the Council with no vote at Council meetings. Qualifications – The Council prefers that the person appointed as Executive Director have experience in a responsible administrative position, strong organizational and communication skills, and knowledge of the cattle industry. Accountability – The Executive Director shall report to the Council, as directed, and to the President of the Council between Council meetings. Compensation – The compensation, terms, and conditions of appointment and services to be rendered to the Society, shall be established by the Council and reviewed annually, or more frequently as deemed appropriate by the Council. Authority and duties – Specifically, the authority and duties of the Executive Director shall be set and defined by the Council from time to time.

Article VII. - Debts

No member of the Society shall contract any debts in the name of the Society. No officer of the Society shall incur any liabilities in the name of the Society without the express authority of the Council except in the ordinary course of business of the Society.

Article VIII. – Discipline, Suspension or Expulsion

Whenever a complaint shall be appropriately filed with the Secretary of the Society alleging misrepresentation, fraud or misconduct by a member in connection with the breeding, showing, registration/recordation, purchase or sale of animals registered/recorded by the Society, or alleging willful violation of the By-Laws and Rules of the Society, the Executive Director shall immediately present such charges to Council or such committee as might be appointed for the purpose of handling grievances. The complaint shall be handled in accordance with rules established by Council for disposition of such complaint. The Council may discipline, suspend or expel the member found to be in violation, revoke registration certificate or take such other action as might be provided for in the Rules of the Society.

Article IX. – Amendment of By-Laws

The By-Laws of the Society may be amended by a three-fourths (3/4) vote of the members present at the Annual General Meeting or any adjournment thereof or at any Special Meeting of the members called for such purpose provided that: the subject matter of any proposed amendment shall have been submitted in writing by the Secretary to the members at least thirty (30) days but for no more than sixty (60) days prior to the date of the meeting at which the proposed amendment is to be presented. Amendments to the By-Laws shall go into effect at the adjournment of the meeting at which they are adopted.

RULES

BELTED GALLOWAY SOCIETY, INC.
Adopted by Council October 12, 2001 effective as of January 1, 2002.

SECTION I.
HERD BOOK OF THE
BELTED GALLOWAY SOCIETY

Rule 1. Official Record

The official record of all animals recognized by the Society shall be contained in the Herd Book and an Appendix for females only. Each entry shall contain the registration number, tattoo, sex, color, name of animal preceded by the first owner's registered farm name, date of birth, name and registration number of the sire, name and registration number of the dam, the name and address of the owner of record and name and location of breeder and first owner.

Rule 2. Privileges

A. All Vested Life, Life, Regular and Junior members whose dues status is current are eligible to register cattle in the Herd Book and record females in the Appendix. Non-members of the Society shall not be entitled to the privileges of registration.

B. The use of 'certificate of registration,' 'registration' or 'register' in these Rules shall have reference to animals listed in the Herd Book proper. The use of 'certificate of record,' 'recordation' or 'record' in these rules shall have reference to animals listed in an Appendix.

Rule 3. Eligibility of Animals, Herd Book

Any animal for which application for registration in the Herd Book is submitted must meet the following criteria:

A. The Sire must be registered in the Herd Book or in the herd book of another society, association or organization recognized by the Belted Galloway Society.

B. The Dam must be registered in the Herd Book or in the herd book of another society, association, or organization recognized by the Belted Galloway Society except

(1) a female calf sired by a purebred bull as set forth in 3A above may be out of a dam of 7/8 blood and recorded in the Appendix, or

(2) a female or male calf sired by a purebred bull may be out of a purebred cow recorded in the Appendix.

C. The animal must be black (including black with a brownish tinge), red or dun.

(1) Absolutely no other white hair shall be acceptable on bulls

(2) For purposes of registration, "extraneous white" is defined as any white hair from white skin (white being defined as being without pigment), that has been genetically produced, other than in a complete white belt or list between the front legs and the hind legs

D. In addition, all criteria set forth in Rule 6 shall be essential to eligibility for registration/recordation.

Rule 4. Eligibility of Animals, Appendix

The Appendix holds mismarked purebred females recorded prior to January 1, 2017 and all crossbred females. Any animal for which application for recordation in the Appendix is submitted must meet the following criteria:

A. Only females are eligible for recordation with the exception of steers.

B. Females are accepted into 50% appendix recordation that result from the matings of registered Belted Galloway Dams with solid colored, beef type, polled sires.

C. The sire must be a purebred Belted Galloway bull registered in the Herd Book of the Belted Galloway Society or the herd book of another society, association or organization recognized by the Belted Galloway Society.

D. The dam may be any of the following:

(1) A base cow described as a polled, solid colored or belted, beef type breed with no extraneous white. Solid color cannot be white (white being defined as being without pigment).

(2) Percentage blood Belted Galloway cow sired by a registered Belted Galloway bull.

E. In addition, all criteria set forth in Rule 6 shall be essential to eligibility for recordation.

Rule 5. Exceptions

The following progeny shall not be eligible for registration or recordation:

A. A calf sired by a bull less than 9 months of age at the time of service.

B. A calf produced by a heifer less than 18 months of age at the time of calving.

C. A calf born less than 283 days after the birth of the dam's last calf, except in the case of embryo calves.

Rule 6. Additional Criteria

Any animal for which an application for registration or recordation is submitted, its sire and its dam must be naturally polled, being free from horns or scurs. "Scurs" are defined as any portion of horny tissue attached to the skin of the horn set of a polled animal. Should horns or scurs appear on an animal after registration, the owner of record shall immediately surrender said registration to the Canadian Livestock Records Corporation, and the horned or scurred animal will be deleted from the Herd Book or Appendix.

No white hair from white skin (white being defined as being without pigment) that has been genetically produced is permitted on an animals' Head or Tail.

Should extraneous white hair be found to exist or appear on an animal after registration, the owner of record shall immediately surrender said registration in the Herd Book to the Canadian Livestock Records Corporation and the animal and its offspring will be deleted from the Herd Book.

The provisions of this Rule 6 shall not apply to any steer certificated by the society.

Rule 7. Tattoo Marks

All animals born after January l, 1996 for which an application for registration or recordation is submitted must be ear-tattooed in accordance with the following:

A. The tattoo must be placed in the left ear. At the option of the first owner, the tattoo may also be placed in the right ear.

B. The tattoo shall include:

(1) up to three standard Arabic numerals

(2) a letter designating the year of birth (as prescribed by the Society) appearing as the first or last character in the tattoo

(3) A farm/ranch designation of up to three alpha characters at the beginning or end of the tattoo mark, positioned opposite the year letter designation. At the first owner's option, the farm/ranch designation may be placed at another location in the left ear or singularly in the right ear. All letters shall be standard English letters.

C. The breeder's farm/ranch designation shall be selected by the breeder subject to availability and shall be on record with the Canadian Livestock Records Corporation.

D. No two animals registered by the same breeder shall be given the same tattoo.

E. Should a tattoo become illegible, the same markings shall be placed in a different location of the same ear.

F. Any member wishing to dual-register an animal may submit for approval by Council or its designee a tattoo that conforms with the requirements of the foreign society.

Rule 8. Calves of Multiple Births

Calves of multiple births are eligible for registration or recordation if all other requirements are met. Each application must indicate multiple birth and the sex of the other calf(ves). In the event these requirements are omitted, another of the same gestation may not subsequently be registered unless accompanied by a letter of explanation.

Rule 9. Eligibility of Calves produced by Embryo Transfer (ET)

A calf resulting from an embryo transfer shall be eligible for registration/recordation if having first met all other requirements. The following shall be complied with:

A. The standard guidelines of the International Embryo Transfer Society for the certification and identification of bovine embryos and procedures for processing, documentation, record keeping, labeling and grading of embryos shall be followed by members of the Belted Galloway Society engaging in bovine embryo transfers resulting from the use of registered Belted Galloways.

B. The standard certification forms recommended by the International Embryo Transfer Society and adopted by the American Embryo Transfer Association for recording embryo recoveries, embryo transfers, embryo freezing and embryo exports shall be completed, and copies of such forms be furnished to the Canadian Livestock Records Corporation for the Belted Galloway Society. Such forms shall accompany any subsequent transfer of ownership of the embryo or resulting offspring.

C. All embryo transfer work must be performed by either

(1) a certified member in good standing of the International Embryo Transfer Society, or one of its national certifying affiliates (such as the American Embryo Transfer Association) or

(2) an embryo transfer practitioner or company which meets the requirements and follows procedures set forth as guidelines for embryo recovery, transfer, freezing and export by the International Embryo Transfer Society, or one of its affiliates.

D. Donor cows and sires of embryos must be DNA tested at a laboratory designated by the Belted Galloway Society, and a copy of the test report held in the files of the Belted Galloway Society. Donor cows flushed after January 1, 2018 must be hypotrichosis tested.

E. All calves that are born as a result of embryo transfer must be DNA tested before they can be registered.

Rule 10. Eligibility of Calf produced by Artificial Insemination (AI)

A calf resulting from the artificial insemination of a registered/recorded female shall itself be eligible for registration/recordation if having first met all other requirements. The following shall be complied with:

A. The breeder (owner of record of the dam at the time of service) of a calf which is a product of artificial insemination must

(1) be the owner of record of the sire at the time of service, or

(2) may furnish a bill of sale obtained from supplier of the semen with the application to register/record

B. Any bull providing semen for sale must be DNA tested at a laboratory designated by the Belted Galloway Society and a copy of the test report shall be held in the files of the Society.

Rule 11. Steers

A. Steers are eligible for recordation, certification of parentage and identification provided applicable requirements for registration/recordation are met except for requirements of color, marking and the provisions of Section 1, Rule 6.

B. Steers are eligible for recordation, certification of parentage and identification if they are born to registered, purebred Belted Galloway females and sired by polled, solid colored, beef type sires.

SECTION II.
REGISTRATION

Rule I. Application for Registration

A. Application must be made on a form obtained from and approved by the Society. It must be legibly completed, preferably in ink or typewritten. Online registration applications are acceptable if submitted on the Society approved application form. The applications must contain the following information:

(1) Name of animal, which must be preceded by the first owner's registered farm name.

(2) Indication of whether or not the animal is the product of artificial insemination and/or embryo transfer.

(3) Indication of whether the animal is a twin or of other multiple births.

(4) Color of animal

(5) Sex of animal to be registered

(6) Date of birth

(7) Ear tattoo marks

(8) Name, location and member code of the breeder

(9) Name, location and member code of the first owner.

(10) Name and registration number of the sire.

(11) Name and registration number of the dam

(12) Signature of the first owner certifying accuracy of information.

(13) Certification from the American Embryo Transfer association or the International Embryo Transfer Society is required for registration of calves resulting from embryo transfer.

(14) All bulls born after January 1, 2018 must be DNA and hypotrichosis tested before they can be registered.

(15) Registration of animals from other Belted Galloway breed organizations. Any animal submitted for registration in the Belted Galloway Society, Inc. Herd Book that is currently registered with another Belted Galloway breed organization must undergo DNA testing and hypotrichosis testing before registration will be approved. Submission of registration papers or proof of registration from another Belted Galloway breed organization does not exempt the animal from these testing requirements. Registration in the Belted Galloway Society, Inc. Herd Book is contingent upon receipt and acceptance of the required test results.

B. Preparation of application of registration.

Name: An animal's name cannot contain more than 35 characters and spaces, and only English letters and Arabic numerals shall be acceptable. Animal's name must be preceded by farm name of the first owner. The Society reserves the right to change the name assigned to an animal or an application for registry if it is deemed advisable to do so.

Breeder: The breeder of a calf is the owner of record of its dam on the date of service.

First Owner: The first owner of a calf is the owner of record of its dam on the date of birth of the calf or, in the case of calves resulting from embryo transfer, the first owner shall be the owner of the calf at birth. The first owner must apply for registration of the calf, and the dam must be officially entered in the records of the Society under the same name as the first owner's membership on the date of the birth of the calf, except in cases of embryo calves, as may be provided for in Section 1, Rule 9.

Breeder's Certificate: When a cow has been transferred subsequent to being served but prior to the birth of the calf, and the service was not reported on the transfer application, the breeder (owner of record of the dam at the time of service) must execute the breeder's certificate on the application for registration of the calf.

Owner of Record: The owner of record for the purpose of registration shall mean the membership (individual, partnership or corporation) in whose name an animal is registered.

Rule 2. Incomplete or Inaccurate Applications

A. In the event that an application is incomplete in any respect such application shall be considered null and void. An application shall be incomplete if it fails to contain all information required by Section II, Rule I, or if not accompanied by the appropriate fee.

B. In the event of an inadvertent inaccuracy, the applicant may amend the application. Whenever the accuracy of data contained in an application is challenged, the matter shall be referred to Council for investigation.

Rule 3. Farm Name Changes

A. Restrict prefixes to remain the same from the first animals registered to the last, unless a farm change fee is paid and the rules of the Society must be followed in accordance with the name changes. In addition, for this point forward, April 2002, all new farm prefixes must not be the same as any farm prefixes currently in use.

Rule 4 Misrepresentation or Fraud

A. If an animal's registration has been obtained through willful misrepresentation or fraud, the Council may, in accordance with the provisions of Article VII of the By-Laws, and in accordance with the provisions of Section VIII of these Rules, declare the registration null and void together with any registrations which have been made of descendants of an animal so registered.

B. When a registration has been obtained by means of misrepresentation or fraud, or if the date of birth, tattoo number, sire, dam or service by natural or artificial insemination has been misrepresented, the Council may, in accordance with Article VII of the By-Laws and Section VIII of these Rules, instruct the Canadian Livestock Records Corporation to refuse to receive subsequent applications of any kind signed by a person or persons implicated in said misrepresentation or fraud and may take such other action as may be deemed appropriate.

Rule 5. Animals Registered in error

Any animal that has been registered in the Herd Book of the Belted Galloway Society and as a result of a mistake, inadvertence or unintentional error does not meet the generational pedigree requirements in effect at the time of registration and have retained grandfathered registration status. Any mis-registered animal or their progeny registered from May 1, 2002 onward shall have its' and its' progenies' registration revoked if it did not meet registration generational requirements in effect at the time of registration.

Rule 6. Designations in the Herd Book and Appendix

A. The recordation number for all percentage females recorded in the Appendix shall begin with the letter 'A'. Following the recordation number, the percentage blood of Belted Galloway and the breed designation of the base cow will be listed, *e.g.* "AOOOO-B,3/4BGAN."

(1) Female calves sired by a registered bull out of a base cow shall be recorded as 1/2 blood Belted Galloway.

(2) Female calves sired by a registered bull out of a 1/2 blood cow recorded in the Appendix may be recorded as 3/4 blood Belted Galloway.

(3) Female calves sired by a registered bull out of a 3/4 blood cow re- corded in the Appendix may be recorded as a 7/8 blood Belted Galloway.

B. Purebred females which have gained Herd Book status (15/16 blood and higher) will be denoted with a 'PB' followed by the breed or breed designation of the base cow, *e.g.* "OOOO-B,PBAN." Subsequent progeny of such females will not carry that designation.

C. A designation indicating the reason that a purebred female has been included in the Appendix prior to January 1, 2017 is indicated below.

(1) M1 -- incomplete belt

(2) M2 -- no belt

(3) M3 -- white feet (on or above the level of the dewclaw)

(4) M4 -- White elsewhere on the body
For example: AOOOO,M I

D. Purebred females registered in the Herd Book with white on one or more feet or claws below the level of the dewclaw(s) will be designated with the letter 'W' as part of the registration number.

E. In both the Herd Book and the Appendix, color will be designated as part of the registration/recordation.

(1) Black animals will be designated by the letter 'B'

(2) Dun animals will be designated by the letter 'D'

(3) Red animals will be designated by the letter 'R'

Rule 7. Certificate of Registration

A. Upon completion and submission of the application as required herein accompanied by the appropriate fee, Digital Beef, for the Society will assign a registration/recordation number to the animal and will issue a Certificate of Registration/Recordation to the applicant.

B. A photocopy of the original registration certificate stamped “copy” will be issued in case of Joint ownership. Each joint owner will be entitled to a certificate indicating their participation in the ownership of the animal.

Rule 8. Special Circumstances

A. Registration for the estate of a deceased person. In the event of the death of one who normally would apply for registration of cattle, the Society may require that there be filed in its office copies of all papers and documents necessary to show that the person requesting registration has the power and authority and is duly entitled to request such registration(s) or transfer(s) on behalf of the deceased party.

B. Replacement Certificates. The owner of record of a registered/recorded animal may obtain a replacement certificate by making application to the office of the Canadian Livestock Records Corporation (accompanied by the old certificate, if available) in the following circumstances:

(1) The original certificate is lost or destroyed

(2) A prohibited or unauthorized entry is made on the certificate or the certificate is otherwise defaced.

C. Correction of Errors.

(1) Errors in registrations or transfers committed by the Canadian Livestock Records Corporation shall be corrected free of charge.

(2) Errors in registrations or transfers committed by the applicant shall be corrected at a fee established by Council.

D. Change of Name.

(1) The name of a registered animal, except for the original farm name portion, may be changed at a fee established by Council, provided that the owner of the animal who is a current member in good standing requests such change in writing and that no progeny of said animal have been recorded.

(2) The name of an animal originally registered in a herd book of another society shall not be subject to change.

E. The Council shall have the authority to modify the procedures established herein or to establish new procedures to effect the registration/recordation of an eligible animal upon the failure or inability of a member to perform this duty.

Rule 9. Verification of Records

A. Applicants for registration shall maintain accurate breeding and herd records. The Council or its designated representative may investigate or cause to be investigated, examined, identified, blood-typed or DNA tested any registered animal or herd; and may examine the breeding and herd records maintained by a member or non-member of the Society for the purpose of verifying applications for registry or records on file with Digital Beef, or for the purpose of investigating other matters in which the society may be interested.

B. If, upon investigation by Council or its designated representative, it is determined that breeding or herd records or herd management practices are inadequate to assure the accurate identification of animals in the herd, then the Council may require periodic reports of the current herd status until such time as the Council is satisfied that compliance with the rules of the society is assured.

C. If, upon investigation as provided herein, Council shall determine that the herd records or management practices relating to such records of either a member or non-member of the society are such that the purity of the Belted Galloway breed might be impaired or has been impaired as the result of the inadequacy of such records or the inability to accurately identify animals, then Council may in its discretion take such action as it might deem advisable pursuant to the provisions of Article VII of the By-Laws.

Rule 10. DNA Tests

A. Each animal for which an entry application is received by the society may be subjected to a DNA test to verify accuracy of parentage.

B. The Council may require that a DNA test be made by such agency(ies) as it may designate, of any animal the parentage of which has been questioned. All costs of such investigation and tests shall be borne by the party who is determined to be at fault.

Rule 11. Surrender of Registration Certificates

When a registered animal is lost by death, destruction or other means, or is disposed of for slaughter or as a common grade animal, it shall be the obligation of the holder of certificate of

registration to return it to the Society for cancellation and endorsed to indicate the date and method of disposition.

SECTION III.
TRANSFER OF BELTED GALLOWAY CATTLE
REGISTERED IN HERD BOOK OR RECORDED APPENDIX

Rule I. Transfer of Registration

A. Every change of ownership of record of an animal used for registered breeding purposes must be recorded by official transfer on the records of the Society.

B. No entry on the transfer record of a certificate of registration shall be made except with Digital Beef, and any unauthorized entry shall render a certificate null and void subject to the issuance of a replacement certificate at an additional fee.

C. It shall be the duty of the transferor to apply for transfer and to pay the transfer fee unless it is otherwise specifically agreed between transferor and transferee, in which case the transferor must execute an application for transfer in favor of the transferee. A seller and/or his sales agent (if any) who fails to furnish a buyer with a transferred certificate of registration will be contacted by the Society for a written statement on fifteen (15) days' notice as to the basis for the failure. If the seller and/or said sales agent does not respond to the Society's request, their Society memberships will automatically be temporarily suspended, with the temporary suspensions to expire on the Society's receipt of the requested statement, and the Society will not process any registration or transfer applications executed by seller or said agent until the Society's receipt of the requested statement.

D. It shall be the duty of the transferor before offering a registered animal for sale, or applying for transfer, to verify that the animal carries legible ear tattoo marks corresponding to the tattoo marks entered on its certificate.

E. 'Transferor' shall mean the individual, partnership or corporation in whose name an animal is registered.

F. 'Transferee' shall mean the individual, partnership or corporation into whose name the animal is to be registered.

G. Transfer entries of jointly owned animals shall not exceed three (3) owners of record.

Rule 2. Application for Transfer of Registration

Application for transfer shall be made on approved form and signed by the transferor or his authorized agent. Evidence of authority to sign as agent on behalf of a transferor; and the signature of any authorized agent must be filed with the Registrar and/or with Digital Beef before a transfer application will be accepted for processing. The application shall be legibly completed, preferably in ink or typewritten, and must specify:

A. Name, location and member code of each transferee.

B. Date of sale.

C. Service date, natural or artificial, and registration number of bull, if animal being transferred has been served, and signature of owner of the sire. (The date of service and registration number of the bull may be entered only if service was prior to the date of sale of the animal being transferred. If the cow was pasture exposed and the exact date of service is unknown, the word "pasture" may be entered instead of the date.)

D. Signature and member code of individual, partnership or corporation in whose name the service bull is registered, indicating whether females have been served naturally or artificially inseminated.

E. If sold with artificial insemination breeding privilege.

Rule 3. Omission of Data on Transfer Applications

The execution of transfer applications with the names and addresses of transferees, date of sale or transfer, correct tattoo marks or other data omitted is prohibited except as otherwise provided in Rule 8 of this Section III.

Rule 4. Cows with Calf at Side

If a cow is transferred with a calf at side, the calf must be registered by the individual, partnership or corporation in whose name the cow was registered on the date of birth of the calf, and a separate transfer of the calf is required.

Rule 5. Adjustment Transfers

The following types of transfers not classified as transfers in the ordinary usage of the term may be made at fees established by the Council:

A. Transfers for the purpose of correcting certificate records to exact membership names as required by Rules I and 2 of Section VI.

B. Transfers from estates to heirs under terms of wills or court orders.

C. Transfers to individuals of partnerships.

D. Transfers to stockholders upon the dissolution of corporations.

Rule 6. Errors in Recording of Transfers

The Society shall not be bound by errors in the recording of transfers.

Rule 7. Transfers by Affidavit

In case of neglect or refusal of a member or non-member of the Society to apply for transfer of registration, transfer may be recorded if approved by a majority of the members of Council, on the basis of the transferee's affidavit setting forth the facts and sworn to or affirmed before a Notary Public. Each such affidavit must be accompanied by proof of sale and payment in full of the purchase price of the animal or by evidence of an agreement to sell, purchase or transfer, including the terms and condition of service, if any, in the case of females.

Rule 8. Transfer Applications of Animals Consigned to Public Sale

Sale managers or their representatives may fill in buyers' names on applications for transfer of animals consigned to public sales and, if authorized by the consignor, sign such application in his stead. Such applications must indicate the name of the sale manager or agent representing the consignor and be signed by him. Applications executed under this Rule are subject to Rule 13 of Section III.

Rule 9. Transfer of Exported Animals

Application for transfer of an animal exported to another country shall be made with a regular transfer.

Rule 10. Transfer from the Estate of a Deceased Person

In the event of the death of a transferor, the Society requires that there shall be filed in its office all papers and documents necessary to show that the person requesting transfer is legally authorized and entitled to request such transfer.

Rule 11. Incomplete Applications for Transfer

Whenever an application for transfer is incomplete, and the applicant has failed to provide all of the information required by this Section 10 of the Rules within four months of the date application was received by the Society, such application shall be considered null and void. An application shall be considered incomplete if not accompanied by required fee.

Rule 12. Responsibility for Legal Title

A transfer of registration entered on an application or a certificate of registration, or on the records of the Society, shall not be construed as the conveyance of legal title by the Society. The Society shall in no way be involved in or assume liability for the purchase, sale or terms of the sale of registered animals, or the passage of legal title thereto.

Rule 13. Misrepresentation or Fraud

A. If an animal's registration has been transferred through misrepresentation or fraud the Council may, in accordance with Article VII of the By-Laws, declare such transfer null and void together with any registrations of purported descendants of the animal which may have been recorded during the period of such misrepresented or fraudulent transfer.

B. When a transfer of registration has been obtained by means of misrepresentation or fraud, the Council may take appropriate action as provided by Article VII of the By-Laws, and instruct the Secretary to refuse to receive subsequent applications of any kind signed by any person or persons implicated in said misrepresentation or fraud.

SECTION IV.
REGISTRATION OF ANIMALS ORIGINALLY RECORDED IN HERD BOOKS RECOGNIZED BY THE BELTED GALLOWAY SOCIETY

Rule 1. Export Certificate

Registration of an animal originally recorded in herd books recognized by the Belted Galloway Society, Inc., and imported into the United States shall be accepted if a registration certificate or embryo transfer certificate issued by the recognized registry organization of the country from which the animal is actually exported has been received by the Belted Galloway Society, Inc. and any animal submitted for registration in the Belted Galloway Society, Inc. Herd Book that is currently registered with another Belted Galloway breed organization must undergo DNA testing and hypotrichosis testing before registration will be approved. Submission of registration papers or proof of registration from another Belted Galloway breed organization does not exempt the animal from these testing requirements. Registration in the Belted Galloway Society, Inc. Herd Book is contingent upon receipt and acceptance of the required test results

Rule 2. Application for Registration

Registration may be applied for only by a member of the Society entitled to registration privilege who imported the animal and whose name appears as purchaser on the export certificate or embryo transfer certificate issued by the registry organization of the country from which the animal was exported, at the fee established by the Council.

Rule 3. Registration of Calves Imported in Dam

If a cow was bred prior to importation and a record of service does not appear on the export certificate, the owner of the bull on the date of service must certify to the particulars of service through the recognized registry organization of the country from which the animal was exported.

Rule 4. Registration of Calves Imported at Side

A. Registration of a calf imported at side of a cow recorded in the recognized registry organization of the country from which the animal was exported shall be accepted only if the calf is also registered in the same recognized registry organization and an export certificate has been received by the Belted Galloway Society, Inc. and follows Rule 1.

B. A separate registration fee shall be required for each calf imported at side.

SECTION V.
SOCIETY FEES

Rule 1. Establishment of Fees

All fees are established by the Council.

Rule 2. Payment of Fees

All fees of whatever nature due the Society shall be paid in advance accompanying requests for services, except in the cases of state institutions and similar agencies.

Rule 3. Non-Payment of Fees

Non-payment of fees because of defective remittances shall be sufficient cause for:

A. Withholding the processing of registrations or transfers.

B. Cancellation of registrations or transfers which have been processed but not paid for.

SECTION VI.
TRANSFER OF MEMBERSHIP

Rule 1. Life or Regular Memberships

Transfers may be made, upon request:

A. To a joint membership with a spouse who is not the subject of any prior suspension or expulsion, if originally issued to an individual.

B. To a surviving partner of a partnership.

C. To one of the individuals of a dissolved partnership, designated by transfer endorsement signed by the other partner or partners.

D. To a stockholder of a corporation designated by transfer signed by its president and attested by its secretary with the corporate seal affixed.

SECTION VII.
SALES AND GUARANTEES

Rule 1. Sales

A. Every registered animal sold or offered for sale publicly or privately must carry visible, legible tattoo identification marks corresponding to the certificate of registration of such animal, and if upon examination, legible marks are lacking, the Society may take such action as it deems appropriate.

B. Offering of registered cattle for sale in the name or names other than the owner of record is prohibited.

Rule 2. Cattle Purchased for Resale

A. Every change of ownership must be recorded by transfer on the records of the Society.

B. The purchase of animals and their resale without fulfilling the requirements of Paragraph A of this Rule is prohibited.

Rule 3. Sales Guarantees

The Belted Galloway Society, Inc., its officers or its Council shall not be liable for any representations or warranties made by the sellers of cattle.

SECTION VIII.
STANDARDS, VIOLATIONS AND ENFORCEMENT

In order to safeguard the integrity of our Society and its membership in dealings among ourselves and representations to those outside our Society, the following rules have been enacted.

Rule 1. Violations

The following acts shall be deemed to be violations of the ethical standards of this Society:

A. Any misrepresentation or fraud contained in an application for registration/recordation.

B. Any misrepresentation or fraud involved in the transfer of a registered/recorded animal.

C. Any misrepresentation contained in advertising for or reports of results from any group-sponsored or privately held production sale.

D. Any misrepresentation in advertising or publication submitted by a member.

E. Failure of any member to adhere to the rules established by an organization sponsoring an event in which the member has elected to participate.

F. In showing or exhibiting animals, it shall be a violation of the rules to:

(1) Attempt physically or physiologically to alter the natural confirmation, musculature or weight of an animal by use of an injected or ingested material not conducive to the health of the animal or marketability of the carcass.

(2) Any change or attempt to change the natural color pattern of an animal.

(3) Showing of any animal that has been administered any quantity of diuretic, unproved growth stimulant or other unproved medication, or that has not been properly withdrawn from approved drugs. "Unproved" is deemed to mean not approved by the Food and Drug Administration (FDA) and/or the United States Department of Agriculture (USDA).

(4) No nurse cows will be allowed.

(5) Any conduct by or on behalf of a breeder or exhibitor intended to influence the outcome of an event.

G. Alteration of a tattoo mark.

H. Any conduct or act designed to deceive a member, a purchaser, potential purchaser or the Society.

I. Violation of any of these rules or the By-Laws of the Society.

J. Violation of any other published rules of Council or its duly appointed committees.

Rule 2. Complaint

Complaints will be accepted from any member alleging violations as set forth hereinabove. Complaints may also be received from non-members, judges or officials of exhibits or shows. Complaints from members shall be directed to the Executive Director in writing and shall be accompanied by:

A. Allegations of specific violation(s).

B. Evidentiary material supporting said allegations.

C. List of any corroborative witnesses.

D. Investigatory fee as prescribed by Councilor its designated representative.

Complaints from non-members shall be received in any written form convenient to complainant. All complaints by either members or non-members must be filed within a reasonable time after discovery of the alleged offense.

Rule 3. Grievance Committee

In order to insure the timely and fair administration of the provisions of this Section VIII, a Grievance Committee consisting of three members plus the President of the Society shall be established as provided in Article IV of the By-laws. The President of the Society shall serve as chairman of the committee, but shall have no right to vote on any issue except in the case of a tie. The Grievance Committee shall be charged with the responsibility of receiving and investigating each complaint filed pursuant to the provisions of this section. The decision of a majority of the Grievance Committee shall be immediately forwarded to the Council in writing in the form of a recommendation. All proceedings pursuant to this Section VIII shall be deemed to be confidential and shall be completed as soon as possible.

Rule 4. Investigation

Upon receipt of a complaint, the Executive Director shall immediately forward said complaint to the Chairman of the Grievance Committee. The committee shall forthwith conduct an immediate and comprehensive investigation. If, after a preliminary investigation, the committee shall determine that said complaint requires further investigation, it shall require the complaining party to submit an investigatory fee in the amount of $250.00.

The accused member will be notified and shall be allowed to respond to the accusations within the time set forth in the notice. In addition, the accused member may be required to produce herd records, DNA or blood type test results, or other documents and tests.

In appropriate cases, the Grievance Committee may call for a hearing as provided in the By-laws and may require the accused member to appear at said hearing. Should the accused member fail to respond or appear as required in this rule, the Council may take such action as it deems appropriate.

Rule 5. Disposition of Complaint. Enforcement

Upon receipt of the recommendation by the Grievance Committee, the Council may take the following actions:

A. The complaint may be withdrawn by the complaining party at any time prior to disposition.

B. The complaint may be dismissed by Council for lack of convincing evidence.

C. The complaint may be dismissed by Council as spurious, and in cases reflecting malice on the part of the complainant, the cost of the investigation may be charged to the complainant.

D. The complaint may be determined to be valid, in which case the offending party may be subject to the following:

(1) Written censure by Council with an assessment of costs of investigation.

(2) Revocation of registration/recordation and/or revocation of transfer.

(3) Suspension of rights to register, record or transfer

(4) Revocation of awards or points earned at shows.

(5) Suspension or expulsion of membership.

(6) Such other action as might be deemed appropriate by Council.

Rule 6. Litigation Forum and Expenses.

Every member by joining the Society, or non-member by filing transfer of registration documents with the Society, agrees that:

A. Following judicial review of any Society final decision, action or Rule contested by said member or non-member, whereby the member or non-member fails to have the Society's decision, action or Rule reversed or overturned, said member or non-member shall reimburse the Society for the reasonable attorney's fees, court costs and other expenses incurred by the Society in defense of the law suit; and

B. Said member or non-member shall not commence any action, whether in law or equity, against the Society in any courts other than those Federal or State courts located in the State of Tennessee.

Rule 7. Suspension Procedure.

Any decision and action by the Council pursuant to Article VII of the By-Laws, providing for the suspension of membership, shall set forth a specific time period for such suspension, following which the Society will entertain consideration of a request by that member for reinstatement to full membership.

SECTION IX.
AMENDMENT OF SOCIETY RULES

These rules may be altered, amended or repealed by a majority vote of Council at any meeting, provided notice of the meeting shall have contained a copy of proposed alteration, amendment or repeal.

Display Booth

The Society's TABLE-TOP DISPLAY BOOTH is available on a first-come, first-served basis to any member exhibiting Belties. Reserve use of the booth and make shipping arrangements with the Executive Director.

Schedule of Dues and Fees

A current listing of dues and fees can be found on the Belted Galloway Society's website at www.beltie.org. Fees are subject to change.

VI. The Belted Galloway Foundation, Inc.

The Belted Galloway Foundation, Inc. ("The Foundation") is a non-profit corporation created to engage in educational and scientific activities dedicated to the improvement of Belted Galloway cattle breed production and marketing practices, and encouraging youth involvement in beef production.

The seven-member Foundation Board of Directors consists of the two (2) most recent past presidents of the Belted Galloway Society, the current chairs of the Society's Long-Range Planning, Chatfield Scholarship Fund and Fundraising Committees and two (2) members-at-large.

The Foundation is a separate, autonomous corporation that is entirely supported by fundraising. Those who donate money or articles of value to support the Foundation and its programs enjoy the same tax benefits afforded those persons who donate to any charitable organization.

The Foundation currently maintains three separate funds: General Fund, Beltie Youth Group Fund, and the Chatfield Scholarship Fund. Donors to the Foundation can stipulate which fund they would like their donation to benefit. Those who wish to obtain funding for a particular educational or scientific project may contact the Foundation Secretary to request an application.

EDUCATION

Belted Galloway Breeders Manual

In order to provide Belted Galloway breeders with pertinent information regarding the care and breeding of their cattle, the Foundation publishes the *Belted Galloway Breeders Manual*. This publication is provided free of charge to all Belted Galloway breeders, and is intended to be a useful resource for all those who are interested in beef production and, specifically, the Belted Galloway breed.

A.H. Chatfield, Jr. Memorial Scholarship Fund

This fund was established shortly after the Aldermere Farm founder's death in 1999. The purpose was to establish an annual scholarship in his memory available to a member of the Beltie Youth Group or to any other deserving student interested in pursuing a career related to beef production.

Students interested in applying for the A.H. Chatfield, Jr. scholarship award may request a form from the Executive Director’s office.

Junior Belted Galloway Association formerly known as the Beltie Youth Group (BYG)

Supported by the members of the Belted Galloway Society through generous contributions to the Foundation and other fundraisers, the Beltie Youth Group is involved with youngsters from every region of the country. The primary purposes of the Junior Association is to encourage youth involvement in the care and breeding of Belted Galloway cattle, and to provide educational and logistical services to support their activities. The Junior Association maintains a separate page at

www.byg.beltie.org which provides a central source for current information regarding its activities. (See pages VI-4.)

SCIENCE

Rose Herd Project

The first donation to the Belted Galloway Foundation was the Rose Herd. Bob Rose of Waitsfield, Vermont made the generous donation of his large herd of fine quality Belted Galloways expressly so the animals could be used for studies intended to benefit the breed. First trials were conducted on the Rose Herd in Iowa in 2003. (See Loren Olson's report).

A.H. Chatfield, Jr., 1900-1999

A. H. Chatfield passed away in 1999, just a few months shy of his l00th birthday. "Chat" was an interesting, multifaceted and unique individual who spent the latter half of his long life dedicated to furthering and improving the Belted Galloway breed.

Mr. Chatfield's Aldermere herd at Rockport, Maine was among the first to use a CHAPS program to identify outstanding individual animals and work toward herd improvement. He was also first to remind us that while preservation of the breed was important, the bottom line was meat.

Chat provided excellent foundation stock to many newcomers to the breed, and it's a rare animal in the country today whose pedigree does not contain Aldermere ancestry. With admirable foresight, Chat insured the future of the fine Aldermere herd by placing his estate in the Maine Coast Heritage Trust, which manages the Belted Galloway herd today.

Members of the Society sincerely miss this fine gentleman, for so many years a strong leader. Shortly after his death the A.H. Chatfield, Jr. Memorial Scholarship Fund was established to perpetuate his memory by assisting students active in the breed. Each year an outstanding youngster is selected as recipient of a "Chatfield scholarship."

The first award in 2000 was to David Burnham of Windleigh Farm, Gorham, ME, a second-year Animal Science major at the University of Vermont. In 2001 John Schoen of Red Barn Farm, Highland, IL received the award upon entering college. John began his Beltie herd at age 12 and remains active in the breed. The 2002 recipient was Jeffrey Schmitz of West Union, Iowa, an Animal Science major who had raised Belties for four years. In 2003 the award went to Louise Callaghan of Annangrove, New Zealand, a farm management student at the University of Sydney. Louise interned at Driftwood Plantation in Awendaw, SC, and was active

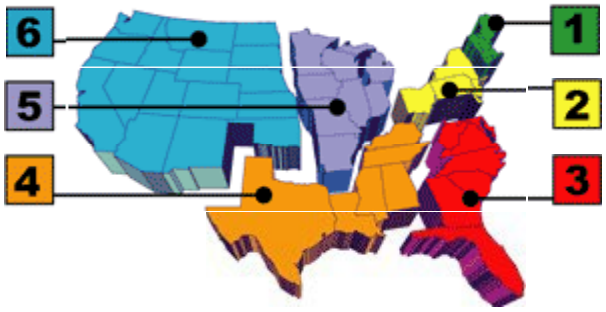
on Beltie show circuits both in the U.S. and Australia. In 2005 two more scholarships were added at $500 each. In 2012 the three scholarship values were increased to $1000 each.



Junior Belted Galloway Association

"Kids are the future of our breed."

The Junior Belted Galloway Association consists of over 100 youngsters from the age of 8 to 21 years of age. We also nurture a group of peewees (pre 8-year-olds) for our program as they become of age.



Our leadership structure consists of a Society Council representative, a National leader and 6 area directors. This gives us the ability to better serve our kids on an individual basis through area participation in shows and field days.

Probably our most important communication/teaching tool is our newly established page at www.beltie.org. It introduces new members to our group as well as keeping our current membership up-to-date with our projects, contests, regional information, and events. There is also a youth forum called Beltie Tails which allows our members to email each other to ask questions or exchange ideas.

Projects available to the junior membership include the Artificial Insemination Project which gives junior members the opportunity to obtain semen from quality Belted Galloway bulls to improve their breeding program. In addition, we have started steer and heifer leasing projects. Both of these give a member the ability to manage a project through a full show season. Thanks to the continuing generosity of Belted Galloway breeders we are able to offer these projects at little or no cost to our youth.

As we grow our attention to the basics -- teamwork, sportsmanship, leadership, social skills and community service -- will continue to be the foundation of the Junior Belted Galloway Association. As our youths mature, they will become outstanding Belted Galloway breeders and citizens.

Belted Galloway Foundation, Inc.
By-Laws
a Tennessee Nonprofit Corporation

ARTICLE 1. NAME

SECTION 1. NAME
The name of this corporation is BELTED GALLOWAY FOUNDATION, INC.

ARTICLE 2. OFFICES

SECTION 1. REGISTERED OFFICE
The corporation shall have and continuously maintain in the State of Tennessee a registered office and registered agent whose office address is identical with such registered office.

SECTION 2. OTHER OFFICES
The corporation may also have offices at such other places, within or without the State of Tennessee, where it is qualified to do business, as its business may require and as the board may, from time to time, designate.

ARTICLE 3. PURPOSES

SECTION 1. OBJECTIVES AND PURPOSES
The primary purposes of this corporation shall be to engage in educational and scientific activities dedicated to the improvement of Belted Galloway beef production and marketing practices, and encouraging youth involvement in beef production.

ARTICLE 4. DIRECTORS

SECTION 1. NUMBER AND DESIGNATION OF DIRECTORS
The corporation shall have seven (7) directors, collectively designated the Board of Directors (referred to herein as the "board"). The board shall consist of the people who hold the following offices with the Belted Galloway Society, Inc.

A. The two (2) most recent past Presidents; and
B. The chairs of each of the Long-Range Planning, Chatfield Scholarship Fund and Fundraising Committees.
C. Two (2) members as large

If there are less than seven (7) directors as a result of one person holding more than one of the above offices, then the unfilled office shall be filled pursuant to the procedures for filling any other vacant office as provided in Section 17 of this Article.

SECTION 2. POWERS

Subject to the provisions of the Tennessee Nonprofit Corporation Act (hereinafter, the "Act"), the activities and affairs of this corporation shall be conducted and all corporate powers shall be exercised by or under the direction of the board.

SECTION 3. DUTIES

It shall be the duty of the directors to:

A. Perform any and all duties imposed on them collectively or individually by law, by the Articles of Incorporation of this corporation, or by these By-laws;

B. Appoint and remove, employ and discharge, and, except as otherwise provided in these Bylaws, prescribe and supervise the duties and fix the compensation, if any, of all officers, agents and employees of the corporation;

C. Meet at such times and places as required by these Bylaws; and

D. Register their addresses, phone and facsimile numbers, and electronic mail addresses with the Secretary of the corporation and notices of meetings delivered, telephoned, facsimiled, electronically mailed to them at such addresses shall be valid notices thereof.

SECTION 4. TERM OF OFFICE OF DIRECTORS

Directors' terms of office shall be of one year duration and shall run from each annual meeting to the next year's annual meeting.

SECTION 5. COMPENSATION

Directors shall serve without compensation, although they shall be allowed reasonable advancement or reimbursement of expenses incurred in the performance of their regular duties as specified in Section 3 of this Article. Directors may not be compensated for rendering services to the corporation in any capacity other than director unless such other compensation is reasonable and is allowable under the provisions of Section 6 of this Article.

SECTION 6. RESTRICTION REGARDING INTERESTED DIRECTORS

Notwithstanding any other provision of these Bylaws, not more than forty-nine percent (49%) of the persons serving on the board may be interested persons. For purposes of this Section, "interested persons" means either:

A. Any person currently being compensated by the corporation for services rendered it within the previous twelve (12) months, whether as a full- or part-time officer or other employee, independent contractor, or otherwise, excluding any reasonable compensation paid to a director as director; or

B. Any brother, sister, ancestor, descendant, spouse, brother-in-law, sister-in-law, son-in-law, daughter-in-law, mother-in-law, or father-in-law of any such person.

SECTION 7. PLACE OF MEETINGS

Meetings of the board shall be held at any place within or outside Tennessee that has been designated by resolution of the board or in the notice of the meeting, or if not so designated, at the principal office of the corporation. Any meeting of the board, regular or special, may be held by any means of communication by which all participating directors can simultaneously hear one another. A director so participating constitutes presence in person.

SECTION 8. REGULAR AND ANNUAL MEETINGS

Regular meetings of the directors shall be held two (2) times per year, once in the spring and once in the fall of each year. The fall meeting shall be the annual meeting. At the annual meeting the board shall undertake the election of directors (if not designated pursuant to subsection (A) of Section 3 of this Article), election of officers, and transactions of other business. Other general meetings of the board may be held with notice as provided in Sections 9 and 10 of this Article.

SECTION 9. SPECIAL MEETINGS

Special meetings of the board may be called by the President or by any two directors, and such meetings shall be held at the place, within or outside the State of Tennessee, designated by the person or persons calling the meeting, and in the absence of such designation, at the principal office of the corporation.

SECTION 10. NOTICE OF MEETINGS

Regular meetings of the board may be held with seven days' notice by:

(1) first-class mail, postage prepaid;
(2) personal delivery of written notice;
(3) delivery by overnight courier or private delivery service that can be and is confirmed;
(4) telephone, including a voice messaging system or other technology designed to record and communicate messages, either directly to the director or to a person at the director's office or home who would reasonably be expected to communicate that notice promptly to the director;
(5) confirmed facsimile;
(6) confirmed electronic mail; or
(7) other electronic means that can be and is confirmed.

All such notices shall be given or sent to the director's address, telephone number or electronic mail address as shown on the corporation's records. Special meetings of the board shall be held upon seven (7) days' notice and shall specify the date, time and place of the meeting.

Notice of the time and place of holding an adjourned meeting need not be given to absent directors if the time and place of the adjourned meeting are fixed at the meeting adjourned and if such adjourned meeting is held no more than twenty-four (24) hours from the time of the original meeting. Notice shall be given of any adjourned regular or special meeting to directors absent from the original meeting if the adjourned meeting is held more than twenty-four (24) hours from the time of the original meeting.

SECTION 11. CONTENTS OF NOTICE

Notice of meetings not herein dispensed with shall specify the place (if other than the corporation's principal office), day and hour of the meeting. The purpose of any meeting of the board need not be specified in the notice.

SECTION 12. WAIVER OF NOTICE AND CONSENT TO HOLDING MEETINGS

Notice of a meeting of the board need not be given to any director who, either before or after the meeting, signs a waiver of notice. All such waivers must be in writing and signed by the director entitled to notice, and shall be filed with the corporate records or made a part of the minutes of the meetings. Notice of a meeting need not be given to any director who attends the meeting and who, before or at the beginning of the meeting, does not protest the lack of notice to him or her, or does not vote for or assent to any action taken at the meeting.

SECTION 13. QUORUM FOR MEETINGS

A majority of the directors then in office shall constitute a quorum for the transaction of any business except adjournment. A meeting at which a quorum is initially present may continue to transact business, despite the withdrawal of some directors, if any action taken or decision made is approved by at least the number of directors required to take action as provided in Section 14 of this Article.

Except as otherwise provided in these Bylaws or in the Articles of Incorporation of this corporation, or by law, no business shall be considered by the board at any meeting at which a quorum, as hereinafter defined, is not present, and the only motion which the chair shall entertain at such meeting is a motion to adjourn. However, a majority of the directors present at such meeting may adjourn from time to time until the time fixed for the next regular meeting of the board.

When a meeting is adjourned for lack of a quorum, it shall not be necessary to give any notice of the time and place of the adjourned meeting or of the business to be transacted at such meeting, other than by announcement at the meeting at which the adjournment is taken, except as provided in Section 10 of this Article.

SECTION 14. MAJORITY ACTION AS BOARD ACTION

Every action taken or decision made by a majority of the directors then currently in office and present at a duly held meeting at which a quorum is present shall be an act of the board, subject to the more stringent provisions of the Act, including, without limitation, those provisions relating to (a) approval of contracts or transactions in which a director has a direct or indirect material financial interest, (b) approval of certain transactions between corporations having common directorships, and (c) creation of and appointment to committees of the board, and (d) indemnification of directors.

SECTION 15. CONDUCT OF MEETINGS

Meetings of the board shall be presided over by the President of the corporation or, in his or her absence, by the Vice President of the corporation or, in the absence of each of these persons, by a person chosen by a majority of the directors present at the meeting. The Secretary of the corporation shall act as secretary of all meetings of the board, provided that, in his or her absence, the presiding officer shall appoint another person to act as secretary of the meeting.

SECTION 16. ACTION BY UNANIMOUS WRITTEN CONSENT WITHOUT MEETING

Any action required or permitted to be taken by the board under any provision of law may be taken without a meeting if all members of the board individually or collectively consent in writing to such action; provided, however, that the consent of any director who has a material financial interest in a transaction to which the corporation is a party shall not be required for approval of that transaction. Such action by written consent shall have the same force and effect as any other validly approved action of the board. All such consents shall be filed with the minutes of the proceedings of the board. Any consent approved in this matter shall have the effect of a meeting and may be described thereafter as a meeting.

SECTION 17. VACANCIES

Vacancies on the board shall exist (a) on the death, resignation or removal of any director (including removal or resignation of an office of which the holder is a designated director), (b) when one or more persons hold more than one office of which the holder is a designated director or (c) whenever the number of authorized directors is increased.

The board may declare vacant the office of a director who has been declared of unsound mind by a final order of court, or convicted of a felony, or been found by a final order or judgment of any court to have breached any duty under Title 48, Chapter 48, Part 3 of the Act.

Directors may be removed without cause by a majority of the directors then in office. Any director may resign effective upon giving written notice to the President, the Secretary, or the board, unless the notice specifies a later time for the effectiveness of such resignation.

No reduction of the number of authorized directors shall have the effect of removing any director before that director's term of office expires. Vacancies on the board may be filled by approval of the board or, if the number of directors then in office is less than a quorum, by (a) the unanimous written consent of the directors then in office, (b) the affirmative vote of a majority of the directors then in office at a meeting held pursuant to notice or a waiver of notice complying with this Article of these Bylaws, or (c) a sole remaining director.

A person elected to fill a vacancy as provided by this Section shall hold office until the next annual election of the board or until his or her death, resignation or removal from office.

SECTION 18. NON-LIABILITY OF DIRECTORS

To the fullest extent permitted by the Act, as it may be amended from time to time, a director or incorporator of the corporation shall not be liable to the corporation for monetary damages for breach of fiduciary duty as a director or incorporator. If, after the date these bylaws are executed, the Act is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of a director or incorporator of the corporation shall be eliminated or limited to the fullest extent permitted by the Act, as so amended from time to time. Any repeal or modification of this Article Ten by the corporation shall not adversely affect any right or protection of a director or incorporator of the corporation existing at the time of such repeal or modification or with respect to events occurring prior to such time.

SECTION 19. INDEMNIFICATION BY CORPORATION OF DIRECTORS, OFFICERS, EMPLOYEES AND OTHER AGENTS

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal (hereafter referred to as a "Proceeding"), by reason of the fact that he or she is or was a director or incorporator of the corporation or is or was serving at the request of the corporation as a director (or the equivalent thereof) of another corporation or of a partnership, limited liability company, joint venture, trust or other enterprise, including service with respect to employee benefit plans (hereinafter referred to as an "Indemnitee"), whether the basis of such Proceeding is alleged action in an official capacity as a director or in any other capacity while serving as a director, shall be indemnified and held harmless by the corporation to the fullest extent authorized by the Act, as it may be amended (but, in the case of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than such law permitted the corporation to provide prior to such amendment), against all expense, liability and loss (including but not limited to counsel fees, judgments, fines, ERISA, excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith and such indemnification shall continue as to an Indemnitee who has ceased to be a director or incorporator and shall inure to the benefit of the Indemnitee's heirs, executors and administrators. The right to indemnification conferred in this Article Ten shall be a contract right and shall include the right to be paid by the corporation the expenses incurred in any such Proceeding in advance of its final disposition (hereinafter referred to as an "Advancement of Expenses"); provided, however, that an Advancement of Expenses incurred by an Indemnitee shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such Indemnitee is not entitled to be indemnified for such expenses under this Article Ten or otherwise, the Indemnitee furnishes the corporation with a written affirmation of his or her good faith belief that he or she has met the standards for indemnification under the Act, and a determination is made that the facts then known to those making the determination would not preclude indemnification.

The Corporation shall indemnify and advance expenses to an officer, employee or agent who is not a director to the same extent as to a director by specific action of the corporation's Board of Directors or by contract. The rights to indemnification and to the Advancement of Expenses conferred in this Article Ten shall not be exclusive of any other right that any person may have or hereaf- ter acquire under any statute, the charter, these bylaws, agreement, vote of disinterested directors or otherwise.

SECTION 20. INSURANCE FOR CORPORATE AGENTS

The Corporation may maintain insurance, at its expense, to protect itself and any director. officer. employee or agent of the corporation or another corporation. partnership, limited liability company, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the corporation would have the power to indemnify such person against such expense, liability or loss under the Act.

SECTION 21. DIRECTOR CONFLICTS OF INTEREST

No director or officer of this corporation nor any other corporation, firm, association, or other entity in which one or more of this corporation's directors or officers are directors or have a material financial interest, shall be interested, directly or indirectly, in any contract or transaction with this corporation, unless:

(l) (a) the material facts regarding that director's or officer's financial interest in such contract or transaction or regarding such common directorship, officership, or financial interest, are fully disclosed in good faith and noted in the minutes, or are known to all members of the board prior to consideration by the board of such contract or transaction; and

(b) such contract or transaction is authorized in good faith by a majority of the board by a vote sufficient for that purpose without counting the votes of the interested directors;

(c) before authorizing or approving the transaction, the board considers and in good faith decides after reasonable investigation that the corporation could not obtain a more advantageous arrangement with reasonable effort under the circumstances; and

(d) the corporation for its own benefit enters into the transaction, which is fair and reasonable to the corporation at the time the transaction is entered into; or

(2) approval is obtained from:

(a) the attorney general and reporter; or

(b) a court of record having equity jurisdiction in an action in which the attorney general and the reporter is joined as a party.

ARTICLE 5. OFFICERS

SECTION 1. NUMBER OF OFFICERS

The officers of the corporation shall be a President, a Secretary, and a Treasurer. The corporation may also have, as determined by the board, one or more Vice Presidents, Assistant Secretaries, Assistant Treasurers, or other officers. Any number of offices may be held by the same person except that neither the Secretary nor the Treasurer may serve as the President.

SECTION 2. DESIGNATION AND TERM OF OFFICE

The following offices shall be filled by the person who holds the respective office with the Belted Galloway Society, Inc. (the "Society"):

(a) The second most recent past President of the Society shall be the President of this Corporation.

(b) The Executive Director of the Society shall be the Secretary of this Corporation.

(c) The immediate past President of the Society shall be the Treasurer of this Corporation.

Any person may serve as an officer appointed in accordance with the provisions of Section 3 of this Article. Such officers shall be elected by the board at the annual meeting, and shall serve

at the pleasure of the board, subject to the rights of any officer under any employment contract. Each officer shall hold office for renewable terms of one year.

SECTION 3. SUBORDINATE OFFICERS

The board may appoint, and may authorize the President to appoint, such other officers or agents as it may deem desirable, and such officers shall serve such terms, have such authority, and perform such duties as may be prescribed from time to time by the board.

SECTION 4. REMOVAL AND RESIGNATION

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by the board, at any regular or special meeting of the board, or, except in case of an officer chosen by the board, by an officer on whom such power of removal may be conferred by the board.

Any officer may resign at any time by giving written notice to the board or to the President. Any such resignation shall take effect at the date of receipt of such notice or at any later date specified therein, and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. The above provisions of this Section shall be superseded by any conflicting terms of a contract which has been approved or ratified by the board relating to the employment of any officer of the corporation.

SECTION 5. VACANCIES

Any vacancy caused by the death, resignation, removal, disqualification, or otherwise, of any officer shall be filled by the board. In the event of a vacancy in any office other than that of President, such vacancy may be filled temporarily by appointment by the President until such time as the board shall fill the vacancy. A person so appointed to a vacant office (whether appointed by the President or elected by the Board) shall hold that office until the next annual meeting of the board or until his or her death, resignation or removal from office. Vacancies occurring in offices of officers appointed at the discretion of the board mayor may not be filled as the board shall determine.

SECTION 6. DUTIES OF PRESIDENT

The president shall be the executive officer of the corporation, shall preside at meetings of the board of directors and shall be a member, ex-officio, with right to vote on all committees. The president shall perform all the normal and customary supervision of any and all paid staff positions, including hiring and firing with board of directors approval. The president will also, at the annual meeting and at such other times as the president shall deem proper, communicate to the corporation or to the board of directors such matters and make such suggestions as may, in the president's opinion, tend to promote the welfare and increase the usefulness of the corporation, and shall perform other duties as are necessarily incident to the office of the president or as may be prescribed by the board of directors.

SECTION 7. DUTIES OF VICE PRESIDENTS

In the absence or disability of the President, the Vice Presidents, if any, in order of their rank as fixed by the board or, if not ranked, a vice president designated by the board, shall perform all powers of, and be subject to all the restrictions upon, the President. The Vice Presidents shall have such other powers and perform such other duties as from time to time may be prescribed by the board or the President.

SECTION 8. DUTIES OF SECRETARY

The Secretary/Executive Director shall:

(a) Certify and keep at the principal office of the corporation the original, or a copy, of the Articles of Incorporation and of these Bylaws, as amended or otherwise altered to date.

(b) Keep, or cause to be kept, at the principal office of the corporation or at such other place as the board may direct, a book of minutes of all meetings, proceedings, and actions of the board, and of committees of the board. The minutes of meetings shall include the time and place that the meeting was held; whether the meetings was annual, general, or special, and, if special, how authorized; the notice given; and the names of the persons present at the board and committee meetings.

(c) See that all notices are duly given in accordance with the provisions of these Bylaws or as required by law.

(d) Be custodian of the records and of the seal of the corporation, if there is a seal, and see that the seal is affixed to all duly executed documents, the execution of which on behalf of the corporation under its seal is authorized by law or these Bylaws, and by the board.

(e) Exhibit at all reasonable times to any director of the corporation, or to his or her agent or attorney, on request therefore, these Bylaws and the minutes of the proceedings of the directors of the corporation.

(f) In general, perform all duties incident to the office of Secretary and such other duties as may be required by law, by the Articles of Incorporation of this corporation, or by these Bylaws, or which may be assigned to him or her from time to time by the board.

SECTION 9. DUTIES OF TREASURER

Subject to the provisions of these Bylaws relating to the "Execution of Instruments, Deposits and Funds," the Treasurer/Executive Director shall:

(a) Keep and maintain, or cause to be kept and maintained, adequate and correct books and accounts of the corporation's properties and business transactions, including accounts of its assets, liabilities, receipts, disbursements, gains and losses.

(b) Send or cause to be given to the directors such financial statements and reports as are required to be given by law, by these Bylaws, or by the board. The books of account shall be open to inspection by any director at all reasonable times.

(c) Have charge and custody of, and be responsible for, all funds and securities of the corporation, and (1) deposit, or cause to be deposited, all money and other valuables in the name and to the credit of corporation with such depositories as the board may designate, and (2) disburse, or cause to be disbursed, the corporation's funds as the board may order.

(d) Render to the President and directors, whenever requested, an account of any or all of his or her transactions as Treasurer, and of the financial condition of the corporation.

(e) Prepare, or cause to be prepared, and certify, or cause to be certified, the financial statements to be included in any required reports.

(f) In general, perform all duties incident to the office of Treasurer and such other duties as may be required by law, by the Articles of Incorporation of the corporation, or by these Bylaws, or which may be assigned to him or her from time to time by the board.

(g) If required by the board, the Treasurer shall give the corporation a bond in the amount and with the surety or sureties specified by the board for faithful performance of the duties of the office and for restoration to the corporation of all of its books, papers, vouchers, money, and other property of every kind in the possession or under the control of the Treasurer on his or her death, resignation, retirement, or removal from office.

(h) Provide, or cause to be provided, to the public, all Internal Revenue Service filings required to be disclosed and made generally available to the public in the form or forms required by the Internal Revenue Service or by statute.

SECTION 10. COMPENSATION

The salaries, if any, of the officers shall be fixed from time to time by resolution of the board. The salary received by any officer of this corporation shall be reasonable and given in return for services actually rendered to the corporation that relate to the performance of the charitable or public purposes of this corporation. No officer shall be prevented from receiving such salary by reason of the fact that he or she is also a director of the corporation, provided, however, that such compensation paid a director for serving as an officer of this corporation shall only be allowed if permitted under the provisions of Article 4, Section 6 and Section 21, of these Bylaws.

ARTICLE 6. COMMITTEES

SECTION 1. EXECUTIVE COMMITTEE

The board may, by a vote of directors, designate two (2) or more of its members to constitute an Executive Committee and delegate to such Committee any of the powers and authority of the board in the management of the business and affairs of the corporation, except with respect to:

(1) The filling of vacancies on the board or on any committee which has the authority of the board;

(2) Approve distributions;

(3) Approve or recommend to dissolution, merger or the sale, pledge or transfer of all or substantially all of the corporation's assets;

(4) The amendment or repeal or any resolution of the board which by its express terms is not so amendable or repealable;

(5) The appointment of committees of the board or the members thereof;

(6) Adopt, amend or repeal the charter or bylaws; or

(7) The approval of any transaction to which this corporation is a party and in which one or more of the directors has a material financial interest.

By a majority vote of the directors then in office, the board may at any time revoke or modify any or all of the authority so delegated, increase or decrease but not below two (2) the number of its

members, and fill vacancies therein from the members of the board. The Committee shall keep regular minutes of its proceedings, cause them to be filed with the corporate records, and report the same to the board from time to time as the board may require.

SECTION 2. OTHER COMMITTEES

The board may, by resolution adopted by a majority of the number of directors then in office, provided that a quorum is present, create one or more committees, each consisting of two or more directors, to serve at the pleasure of the board. Any such committees so created shall have such authority vested in the committee by the board, except with respect to:

(1) The filling of vacancies on the board or on any committee which has the authority of the board;

(2) Approve distributions;

(3) Approve or recommend to dissolution, merger or the sale, pledge or transfer of all or substantially all of the corporation's assets;

(4) The amendment or repeal or any resolution of the board which by its express terms is not so amendable or repealable;

(5) The appointment of committees of the board or the members thereof;

(6) Adopt, amend or repeal the charter or bylaws; or

(7) The approval of any transaction to which this corporation is a party and in which one or more of the directors has a material financial interest. By a vote of the directors then in office, the board may at any time revoke or modify any or all of the authority so delegated, increase or decrease but not below two (2) the number of its members, and fill vacancies therein from the members of the board. Appointments to any such committees shall be by a vote of the directors then in office. The board may appoint one or more directors as alternate committee members, who may replace any absent member at any meeting of the respective committee(s). Any such committees shall keep regular minutes of its proceedings, cause them to be filed with the corporate records, and report the same to the board from time to time as the board may require.

SECTION 3. ADVISORY COMMITTEES

The corporation shall have such other committees as may from time to time be designated by resolution of the board. Such other committees may consist of persons who are not also members of the board. These additional committees shall act in an advisory capacity only to the board and shall be clearly titled as "advisory" committees.

SECTION 4. MEETINGS AND ACTION OF COMMITTEES

Meetings and action of committees shall be governed by, noticed, held and taken in accordance with the provisions of these By-Laws concerning meetings of the board, with such changes in the context of such By-Law provisions as are necessary to substitute the committee and its members for the board and its members, except that the time for regular meetings of committees may be fixed by resolution of the board or by the committee. The time for special meetings of committees may also be fixed by the board. The board may also adopt rules and regulations pertaining to the

conduct of meetings of committees to the extent that such rules and regulations are not inconsistent with the provisions of these By-Laws.

ARTICLE 7. EXECUTION OF INSTRUMENTS,DEPOSITS AND FUNDS

SECTION 1. EXECUTION OF INSTRUMENTS

The board, except as otherwise provided in these By-Laws, may by resolution authorize any officer or agent of the corporation to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances. Unless so authorized, no officer, agent, or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable monetarily for any purpose or in any amount.

SECTION 2. CHECKS AND NOTES

The board shall determine who shall be authorized from time to time on the corporation's behalf to sign checks, drafts and other orders for payment of money. Such authority may be general or confined to specific instances.

SECTION 3. DEPOSITS

All funds of the corporation shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositories as the board may select.

SECTION 4. GIFTS

The board may accept on behalf of the corporation any contribution, gift, bequest, or devise for the charitable or public purposes of this corporation.

ARTICLE 8. CORPORATE RECORDS, REPORTS AND SEAL

SECTION 1. MAINTENANCE OF CORPORATE RECORDS

The corporation shall keep at its principal office in the State of Tennessee:

(a) Minutes of all meetings of its members and board of directors, a record of all actions taken by the members or directors without a meeting, and a record of all actions taken by committees of the board of directors in place of the board of directors.

(b) Adequate and correct books and records of account, including accounts of its properties and business transactions and accounts of its assets, liabilities, receipts, disbursements, gains and losses;

(c) Its charter or restated charter and all amendments to it currently in effect, and its bylaws or restated bylaws and all amendments to them currently in effect;

(d) A list of the names and business or home addresses of its current directors and officers;

(e) Its most recent annual report delivered to the secretary of state under § 48-66-203 of the Act; and

(f) Copies of all filings made to the Internal Revenue Service.

The corporation shall maintain its records in written form or in another form capable of conversion into written form within a reasonable time.

SECTION 2. CORPORATE SEAL

The board may adopt, use, and at will alter, a corporate seal. Such seal shall be kept at the principal office of the corporation. Failure to affix the seal to corporate instruments, however, shall not affect the validity of any such instrument.

SECTION 3. DIRECTORS' INSPECTION RIGHTS

Every director shall have the absolute right at any reasonable time to inspect and copy all books, records and documents of every kind and to inspect the physical properties of the corporation.

SECTION 4. RIGHT TO COPY AND MAKE EXTRACTS

Any inspection under the provisions of this Article may be made in person or by agent or attorney and the right to inspection includes the right to copy and make extracts.

SECTION 5. ANNUAL REPORT

The corporation shall prepare annual financial statements, including the following:

(a) A statement of the assets and liabilities, including the trust funds, of the corporation as of the end of the fiscal year;

(b) A statement of the principal changes in assets and liabilities, including trust funds, during the fiscal year;

(c) A statement of the revenue or receipts of the corporation, both unrestricted and restricted to particular purposes, for the fiscal year;

(d) A statement of the expenses or disbursements of the corporation, for both general and restricted purposes, during the fiscal year; and

(e) A report of any indemnifications or advances of expenses to a director under sections 48-58-502 through 506 of the Act. The annual report shall be accompanied by any report thereon of independent accountants, or, if there is no such report, the certificate of an authorized officer of the corporation that such statements were prepared without an audit from the books and records of the corporation.

SECTION 6. SECRETARY OF STATE'S REPORT

The board shall cause to be prepared and delivered to the Secretary of State no later than the first day of the fourth month of the corporation's fiscal year an annual report for the prior year in compliance with section 48-66-203 of the Act.

ARTICLE 9. FISCAL YEAR

SECTION 1. FISCAL YEAR OF THE CORPORATION

The fiscal year of the corporation shall begin on the first (1st) day of July in each calendar year and end on the thirtieth day of June of next calendar year.

ARTICLE 10. AMENDMENT OF BYLAWS

SECTION 1. AMENDMENT

Subject to any provision of law applicable to the amendment of Bylaws of a Tennessee Nonprofit Corporation, these Bylaws, or any of them, may be altered, amended, or repealed and new bylaws adopted by approval of a majority of the directors then currently in office.

ARTICLE 11. AMENDMENT OF ARTICLES

SECTION 1. AMENDMENT OF ARTICLES

Any amendment of the Articles of Incorporation may be adopted by approval of a majority of the directors then currently in office.

ARTICLE 12. PROHIBITION AGAINST SHARING CORPORATE PROFITS AND ASSETS

SECTION 1. PROHIBITION AGAINST SHARING CORPORATE PROFITS AND ASSETS

No director, officer, employee, or other person connected with this corporation, or any private individual, shall receive at any time any of the net earnings or pecuniary profit from the operations of the corporation, provided, however, that this provision shall not prevent payment to any such person for reasonable compensation for services performed for the corporation in effecting any of its public or charitable purposes, provided that such compensation is otherwise permitted by these Bylaws and is fixed by resolution of the board; and no such person or persons shall be entitled to share in the distribution of, and shall not receive, any of the corporate assets on dissolution of the corporation.

ARTICLE 13. MEMBERS

SECTION 1. DETERMINATION OF MEMBERS

This corporation makes no provision for members. Any action which would otherwise, under law or the provisions of the Articles of Incorporation or Bylaws of this corporation, require approval by a majority of all members or approval by the members, shall only require the approval of the board.

ARTICLE 14. CONSTRUCTION AND DEFINITIONS

SECTION 1. CONSTRUCTION AND DEFINITION

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Act shall govern the construction of these Bylaws. Without limiting the generality of the above, the masculine gender includes the feminine and neuter, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both the corporation and a natural person.

VII. Belted Galloway Shows, Sales & Events

Belted Galloway Shows

The First Belted Galloway show in the U.S. occurred when the Society accepted an invitation to appear in the VIRGINIA STATE FAIR at Richmond September 25 to October 4, 1970. The show's six classes attracted 39 entries. Belted Galloways were included for the first time at the EASTERN NATIONAL LIVESTOCK SHOW in Timonium, Maryland November 3, 1973, a second show was held here in 1974, and Belties returned to the Eastern National in 1999. The Virginia State Fair's Belted Galloway Show continued until 1976, while FRYEBURG FAIR in Maine began Belted Galloway classes in 1974. A silver vase donated by the Society to Supreme Champions at Virginia State Fair was on display at the Chatfield residence in Rockport, Maine, and in 1986 the Society endowed a perpetual silver trophy awarded to Fryeburg's Supreme Champions.

In 1993 the first WISCONSIN WORLD BEEF Expo at Madison (now held at Milwaukee) drew 27 animals to its Belted Galloway classes, and since 1995 this show consistently attracts over 60 entries. Thirty-seven animals were entered in the first Belted Galloway Show at the NORTH AMERICAN INTERNATIONAL EXPOSITION, Louisville, Kentucky, in 1994. This show now draws up to 90 entries. In 1995 an all-purebred Belted Galloway Show was instituted at 'The Big E,' EASTERN STATES EXPOSITION at Springfield, Massachusetts, initially attracting over 50 entries and currently attracts 70-80 entries per year.

In recent years new events have been organized all around the country, and the Belted Galloway show circuit now numbers about a dozen. The Point Show System instituted in 1998 determines recipients of annual and lifetime achievement awards.

Sleepy Creek Lord Fleetwell, Grand Champion Male at Fryeburg Fair, 1974.



Showing Belted Galloways

Why show? Showing is labor-intensive, time-consuming and can be expensive. Why bother?

Because … breeders who show find the rewards are well worth the time and energy expended. In addition to the benefits of viewing different bloodlines side by side, placing our breed in the public's eye has helped immeasurably to expand our Society and our cattle population.

Showing contributes to our knowledge of the breed. There is much to be learned from giving attention to the judges' choices and comments. Spectators as well as exhibitors learn to distinguish benchmarks of excellence in Belted Galloways.

Individual breeders who show (win, lose or draw!) are likely to find that as a result of the exposure they are in the enviable position of maintaining customer waiting lists for the animals they offer for sale. The expanding circuit of Belted Galloway shows offers new opportunities for breeders to promote their animals, to learn to develop advantageous breeding programs, and at the same time make new friends for our breed.

Many of our Society's members are new to cattle husbandry and may regard training animals and entering the ring as a daunting task. But because our breed is fairly new to the show ring, we're *all* learning together. The novice showman will be surprised and pleased at the ready assistance offered by other exhibitors.

One last-but-not-least benefit of showing ... the special comradery developed over muck-out tools at 6:00 a.m. is something that cannot be developed any other way! We know that you will enjoy entering the world of showmanship.

Training for the Ring

Start 'em young!

How do you select a show-worthy animal when you're a newcomer to the sport? A good first step is consulting successful cattle producers in your area for advice. If you haven't shown before, you may find experienced 4-Hers or FFA members that will be willing to lend a hand.

When it's time to begin working with them, pen your show candidates and start the gentling process. Quite a few of our members have reported, "It really works!" about Bob Stimson's (VT) method, which consists of sitting on an empty bucket with a feed bucket at his feet until the curious youngsters become accustomed to his presence. The next step is to begin scratching the calves' backs (not heads) with a scotch comb.

Put rope halters on each calf now. Pull on the lead a time or two, then release. Some prefer to leave drag ropes on overnight, others feel the halter should be on only when working with the animal. Either way, when you pen them the next day, tie each securely to a post or ring. They may struggle -- but they'll be fighting the halter, not you. They should settle down quickly when you begin brushing them.

Continue this regimen until they respond, pulling them around a little before turning them loose after each session. When the calves will willingly lead, begin using a show stick to teach them to stand square. Practice this often, as it takes time for an animal to accept the stick touching its belly and feet. At this time you may also begin giving regular sudsy baths, brushing and fluffing the hair upward as it dries.

Substitute a leather show halter for the rope halter toward the end of the training period, to accustom the animal to the chain under its chin. At the end of this period your calf should step out with animation when led, and stand square when halted.

Grooming and Fitting:

To clip, or not to clip ... this subject has probably caused more hours of discussion among Beltie exhibitors than any other show topic. To some it seems a shame to diminish the splendid coat of long hair our animals carry, while to others Belted Galloways are beef animals and should be shown similarly to commercial cattle.

Many breeders clip show animals several months before the show season, encouraging a luxurious regrowth of the coat. If weather is warm during this period, cold baths and cooling fans help stimulate hair growth.

Whatever style of clipping or trimming is chosen, the key words during this period are brushing! combing! and more brushing. Your object should be to fluff up the coat, training it upward. If you plan to blow-dry your animals at the show, be sure you've used the blow dryer often enough at home to accustom them to the sound and sensation.

A few years ago the Society sponsored a series of fitting and grooming clinics in various areas, and some of the regional groups have conducted others. If you're new to showing, do attend any clinic you can. If there are none in your locale, consider hiring a professional fitter/groomer to conduct one for you and your Beltie neighbors. Obtaining a professional's advice and tips can be a real plus toward a good performance in the ring.

The Well-Equipped Tack Box

What do you pack? Plan on obtaining a box or trunk to carry the paraphernalia of showing. A good-sized tack box would be 2' to 2-1/2' deep and wide, and 4' to 5' long. Painting or stenciling your farm name on the tack box provides excellent advertising.

The box will contain your assortment of grooming combs, clippers, cattle soap (such as Orvis), drying cloths, hoof polish, extra halters, and 7' or 8' tie ropes. It will also hold any special shampoos, rinses or blueing agents you may choose to use, sprays to make the animal's hair stick out, show sticks, show halters, and extra sets of clean work clothes for yourself.

You'll also need to bring long extension cords, feed and water buckets, a couple of folding chairs, and an assortment of mucking tools (broom, rake, shovel, fork), and perhaps a blow dryer and portable grooming chute. It's a good idea to bring a small truck (dolly) to help transport that heavy tack box.

Most shows have feed and bedding suppliers on the grounds, but these tend to charge premium prices. If possible, bring your own.

If the show is indoors or the weather is warm, you'll need some heavy-duty fans to keep your animals comfortable. Most shows have electricity available, but if your electrical needs are excessive you may also need a small generator (in all cases used outside the buildings).

How the stall space allotted to you is arranged is at your option. You may bring dividers to mark the beginning and end of your exhibit, and these may be as simple or as elaborate as your budget and taste permit. You might bring farm signs and/or individual animal identification signs.

Be prepared to be flexible in your setup. Some shows allow generous allotments of stall space, others are very crowded and allow bare-minimum space for each exhibitor, with common areas designated for tools and tack.

Courtesies and Customs

Read the rules. Avoid misunderstandings at show time by carefully reading the published rules and requirements for the event. If you have questions, ask. The show organizers welcome your interest.

Borrowing. Your fellow exhibitors will generally be quite helpful about lending or supplying equipment to the new showman. Please don't abuse their generosity by preventing their own use of the equipment at rushed times such as just before the show begins. Grooming chutes, for instance, are heavy to transport and expensive to purchase. The new showman is unlikely to possess one, and may reasonably ask the seasoned showman for use of his when it is available. It should go without saying that equipment is *never* borrowed without permission. If the owner has paid fees to bring the chute to the show grounds, it would be suitable to offer to pay or assist in paying those fees.

Conduct. The good showman makes sure his animal is ready in the staging area before his class is called. At many shows the right to enter a class is forfeited if the animal is late entering the ring.

Apparel. Most shows require that exhibitors be 'neatly dressed,' without specifying any particular clothing. Dark pants with a white or light-colored shirt are recommended. Do not wear shirts or jackets into the ring which contain advertising such as logos or embroidered farm names.

Courtesy. You won't always be thrilled with the judge's choices nevertheless; he or she should be treated respectfully at all times. If you question the reason for a placement, ask after the show for an explanation of the choice. When the judge explains, listen and learn! Going home with new knowledge is at least as valuable as taking home a ribbon or trophy.

Junior Showmanship

Juniors showing at premium shows such as county and state fairs in 4-H or FFA classes may elect to show their animal as a beef steer or heifer, or may enter showmanship classes to compete for placings based on the junior's knowledge and ability in handling the animals.

Requirements for these shows will differ, but most have a minimum weight requirement for the animal and a maximum age requirement for the junior (generally under age 21 as of the 1

st of the current year). Some steer shows will place the entries in weight classes rather than breed classes.

Several of our Belted Galloway shows hold steer classes, and most offer junior showmanship classes in two age groups, generally 12 and under or 13 to 21. As in requirements for 4-H and FFA shows, youngsters at the Beltie shows are expected to compete wearing neat slacks and shirts (preferably white), with protective work boots and no caps or hats.

Judges of junior showmanship classes will test the participants in various ways -- by asking the youngsters to exchange animals to test adaptability and skill; or perhaps by ruffling the animal's haircoat and watching to see whether the exhibitor notes and corrects the disarrangement.

Society Sanctioned Show Rules

To be eligible for Belted Galloway Society financial support, Belted Galloway shows must comply with the following rules.

1. Exhibitors must be members in good standing of the Belted Galloway Society, Inc.

2. Animals must be registered or recorded in the Belted Galloway Society Herd Book or other Society recognized Herd Book.

3. Animals must be in good physical condition and typical of the breed in conformation. "Good physical condition" shall include but not be limited to the absence of any infectious condition such as ringworm or warts.

4. Original registration or recordation papers will be required at check in. Any animal without a legible tattoo will not be allowed to show.

5. Bulls over 12 months of age are required to wear nose rings, either temporary or permanent, and must have a lead attached to the ring whenever being lead.

6. All bulls shown must have two descended testicles. No cryptorchids will be allowed.

7. Bulls exhibited at 16 mos. of age or older must be accompanied by a certificate documenting they have passed a breeding soundness exam, including but not limited to the progressive motility, sperm morphology and scrotal circumference performed by a license veterinarian.

8. Females that are 26 mos. or younger are eligible to show in the heifer classes. Females that are 27 months or older must show in the cow/calf class with a calf at side. Calves exhibited in the cow/calf class cannot be over 230 days of age. All cows must be lactating, and all calves must be nursing and registered.

9. Animals must be purebred and registered in the Herd Book to qualify for the purebred show. This will include purebred, properly marked heifers, bulls, purebred steers and Purebred, mismarked heifers. Mismarked heifers will not be eligible for the Supreme Drive.

10. Percentage Belted Galloway animals must be recorded in the Herd Book to eligible to be exhibited in the percentage Belted Galloway show which would include percentage heifers and steers.

12. Percentage heifers and steers may not be shown in group classes.

13. The order of the show will be purebred, properly marked heifers, cow/calf, bulls and group classes, followed by purebred steers, percentage steers, purebred, mis-marked heifers and percentage heifers.

Group classes:

a. Only purebred, Belted Galloways can be shown in group classes, no percentage animals, steers are allowed.

b. There will be 3 group classes, Get of Sire (3 animals by one sire both sexes represented), Produce of Dam (2 animals by 1 dam) and Best Four Head which will consist of 4 animals represented in any configuration. All animals show in groups must have shown in previous classes.

c. All animals shown in the Best Four Head (Breeder's Herd) group class must all be bred by the same breeder. Animals in this group must be owned or co-owned by the exhibitor at least 30 days prior to show and the same owner's name needs to be present on registration paper as well as bred by. The Group classes need to be declared at time of check in.

14. Grand Champion and Reserve Champion heifers and bulls will be DNA verified at the Society's expense at the National show at NAILE only. DNA verification is not required by the Society at any other shows.

15. To compete in the Junior Showmanship classes with an animal, the Exhibitor must be a Junior member of the Society and be 8 years of age or older. This includes any alternate show person entering the ring for the junior. **No bulls over 7 months** of age may be used in Junior Showmanship and any animal deemed unruly or dangerous while in the ring can be dismissed at the Judge's discretion. Only one handler per animal will be allowed in the ring during Showmanship.

16. Substitution: Should any entry be substituted for another no new fees are required. However registration papers must be submitted with the request for substitution. Substitutions must be made by November 1. Substitutions ;may be made within class only.

17. The Show Committee reserves the right to combine or split classes depending on total entries in the class.

18. The Show Committee reserves the right to disqualify any animal that has been fitted in an unethical manner. Unethical fitting shall include any injections of gas, solid or liquid under the skin to alter conformation; any additions of artificial tail heads or polls; any surgical alteration of the animal's shape; as well as any dyeing or coloring which alters the animal's natural color pattern. Artificially filling animals internally (pumping) is strictly prohibited.

19. Exhibitors are responsible for making sure entries are in the staging area before their classes are called. Exhibitors that do not enter the show ring within 3 minutes of the announcer's final call, forfeit the right to compete in that class.

20. Decisions of the judges are final except where mistake, fraud or misrepresentation is proven. Complaints, if any, must be tendered in writing to the Show Committee. Cost of any

resultant investigations shall be borne by the complainant if allegations are dismissed, or by exhibitor against whom the complaint was issued, if allegations are proven correct.

21. All protests must be made within 24 hours of the show.

22. Interference with or disrespect shown to the judge by any exhibitor during the performance of the judge's duties shall be deemed grounds for immediate disqualification.

23. Exhibitors must obey all rules of the Belted Galloway Society, Inc., and of the show they are attending, or be disqualified. Failure of exhibitors to follow the rules and release times shall not be allowed back the next year.

24. Exhibitor time lot for set up will be communicated to exhibitors.

25. Unattended animals must be double-tied with halter rope plus neck rope or two halters, two ropes.

Show Points System

Since 1998 the Belted Galloway Society has made annual awards to outstanding animals shown during the year. The system for calculating the accumulation of points toward awards is defined below.

Base Points System

	1st	2nd	3rd	4th	5th	6th+
Classes with 3 or more entries	4	3	2	1	1	1
Classes with 2 or less entries	2	1				
Cow/Calf classes with 3 or more	6	5	4	3	2	1
Cow/Calf classes with 2 or less	4	3				
Get of Sire – points awarded to sire,	4	3	2	1		
Produce of Dam – points awarded to dam	4	3	2	1		
Breeders Herd (aka Best 4 Head)	4	3	2	1		
points awarded to breeder						
Grand Champion	5					
Reserve Grand Champion	3					

Points are to be awarded in Open shows that allow all those exhibiting Registered/Recorded Belted Galloway cattle to show.

Points will not be awarded within this system for Junior or AOB shows.

Points will be awarded in Galloway Shows as per our Points System as how they placed in the entire show.

In the case of a co-owned animal, the owner's may split the points or if mutually agreed upon, they may decide to have only one owner awarded the entire exhibitor points and the other owner to receive none. This agreement must be sent in written format to the Executive Director prior to the show

Breeder Points will be awarded as the breeder is listed on the certificate. For example in a case of an animal with two breeders listed, the points will be awarded under the joint breeders. If Farm A and Farm B are both listed as breeders of the animal, the breeder points are awarded under both Farm A and Farm B, the points may not be split or awarded to just one of the listed breeders.

Yearly Awards
Show Bull of the Year; Show Female of the Year; Sire of the Year; Dam of the Year; Exhibitor of the Year; Breeder of the Year

Lifetime Awards
Platinum Lifetime Award = 100 or more points Gold Lifetime Award = 60 or more points cumulative all years Silver Lifetime Award = 40 or more points cumulative all years

Point System

Class A Shows -- National Belted Galloway Show at Louisville, KY receive 2x the base points.

Class B Shows – Any show with 60 or more head receive 1.5x -the base points.

Class C Shows -- All shows with 25 or more head of Belted Galloways receive l x base points.

Class D Shows -- Shows with less than 25 head but which have at least 2 or more different breeders exhibiting cattle receive 1 point for class winners, 3 points for Grand Champions, and 2 points for Reserve Grand Champions.

Class E Shows – Shows with 10 or less head of Belted Galloways which have at least 2 or more different breeders exhibiting cattle receive 1 point for class winners only.

Leased Animals -- July 1st leases need to be on file with CLRC for the animal to be shown under the lessee's name. Exhibitor Points will be awarded to the Lessee of the animal. If an animal is shown under the lessee one day of a multiple day show, the animal must continue to be exhibited under the lessee for the duration of the entire show. The lease cannot be terminated half way through an event.

Belted Galloway Sales

The first public offering of Belted Galloways in the U.S. was a joint production sale from Fred Johnson's Summitcrest herd and General James A. Van Fleet's Sleepy Creek herd. Held October 13, 1967 in Ohio, it was attended by many interested observers, reporters and buyers from the Eastern seaboard and as far as Canada, Arkansas and Texas. It caused formation of several new herds. Prices averaged $530, though one bull brought $1750 and another $1000.



Bidders at Summitville's production sale in 1967. Seated in front row: Marion Chatfield (center, head turned away), A.H. Chatfield, Jr., Dwight and Nancy Howard, Albert and Dorothy Tietig (far side of aisle).

The next recorded sales were sanctioned by the Society as NATIONAL BELTED GALLOWAY SALES organized by Dwight Howard of Rockport, Maine, with the first held in April, 1991 in conjunction with the Maine/New England Beef Expo at Fryeburg. This annual event is now organized by the New England Galloway Group.

The first DEEP SOUTH SALE was organized by Mary C. McClellan at Washington, Georgia. In subsequent years the event has been held in various southern locations and sponsored by the Southern Belted Galloway Association, a regional group.

In the Fall of 2009, the Society began the Belted Galloway Society's Premium Sale in Louisville, Kentucky which is held in conjunction with the NAILE.

12.

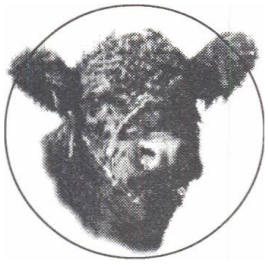
Galloway World Conferences

In May, 1993 an international Belted Galloway breeders' telephone conference was held between twenty participants in Scotland, Britain, Australia, Germany, New Zealand, Canada and the U.S. This unique teleconference was conceived and hosted by John Jeffords of Iron Mountain, Wyoming and moderated by Andre LeMaistre of Freeport, Maine. The conversation ranged over topics from grading up and marketing to belting, mismarking, and breed size considerations.

The cross-cultural exchanges of ideas and opinions were considered valuable enough to warrant an international meeting, and in February, 1995 the Australian Belted Galloway Cattle Breeders Association hosted "BELTlES DOWN UNDER" which included a tour and farm visits, a show at Tyrendarra, Victoria, an international conference at Portland and various social events. Over sixty breeders from a half-dozen countries took advantage of the opportunity to meet and learn about subjects such as development of the breed, an update on bovine spongiform encephalopathy (BSE), a report on color genetics, and more.

In July, 1997 the Canadian Galloway Association hosted a very successful international conference attended by over 150, expanding its scope to include all Galloway associations. The informative and entertaining "INTERNATIONAL GALLOWAY CONGRESS" was held in conjunction with a fine cattle show at the world-famous Calgary Stampede in Alberta, Canada. Discussions were initiated on the feasibility of forming a Galloway World Council with breed promotion and communication between the associations the major priorities. A first step toward those goals was achieved in December, 1997 with establishment of a Galloway World site on the Internet at <www.galloway-world.org>.

In September, 1998 the German Galloway Association, Bundes-verband Deutscher Galloway-Zuchter e.V, hosted a WORLD GALLOWAY CONGRESS in conjunction with the great Alsfeld, Germany cattle show. Over 200 attended, and delegates from a dozen associations met to establish the GALLOWAY WORLD COUNCIL. Officers elected were President Ole Grubbe (Germany), Vice President Alastair Gourlay (U.K.), Board Members Merlin Bradley (Australia) and Barry McAlley (New Zealand), and Secretary/Treasurer Jane Faul (U.S.).



In June, 2000 "BELTIES 2000" sponsored by the Belted Galloway Society of Great Britain and co-hosted by the Galloway Cattle Society of Great Britain and Ireland was held in conjunction with the magnificent Royal Highland Show near Edinburgh, Scotland. Membership in the World Galloway Council now numbered thirteen associations, and delegates from nine countries met at Ingilston. Alastair Gourlay led the meeting as President, otherwise the board remained unchanged. It was established that any Galloway association in the world which registered animals was eligible to enroll, with each permitted two delegates to the planned alternate-year conferences.

The Galloway World Council met again February 21, 2002 at "MUSTER DOWN UNDER" in Canberra, Australia. The Australian Galloway Association hosted the meeting held in conjunction with the Royal Canberra Show where Galloways, Belted Galloways and Miniature Galloways were the featured breeds. Approximately 130 attended including 31 overseas visitors. Lisa Wyman of the U.S. was elected Chairman.

In September, 2004 the Galloway World Council met during the "GALLOWAY GETAWAY U.S.A." in Milwaukee, Wisconsin. The meeting was hosted by the Belted Galloway Society and the American Galloway Breeders Association. The four-day event was packed full of activities including the meeting, show, sale and a wonderful panel discussion on beef marketing. Approximately 170 attended including 24 overseas visitors and a dozen Canadian visitors. Fred Zehetner of Austria was elected Chairman.

2006 saw the members of the Galloway World Council in Linz, Austria during the first week of September. Hosts Fred and Dani Zehetner welcomed visitors with opened arms according to U.S. Belted Galloway Society President Vic Eggleston. Visitors were there from Ireland, Scotland, England, Germany, New Zealand, Australia, Canada as well as breeders from Austria.



The Galloway Cattle Society of New Zealand hosted the next Galloway World Council meeting in March of 2008 in Auckland, New Zealand. Representing the U.S. were Dick and Lisa Williams and Andre LeMaistre. Representatives from all over the world participated in the meeting and show, as well as the bus tour of the countryside.

The Danish Galloway Association graciously hosted the 2010 World Galloway Conference in early September in Denmark. Again, representatives from all over the world spoke about the successes and challenges facing Galloway breeders. The theme of the meeting was nature preservation.

GALLOWAY
FORENINGEN
DANMARK

VIII. SAMPLE FORMS AND RESOURCES

Samples and forms are being supplied for reference purposes only. Please be sure to check the Belted Galloway Society's website at www.beltie.org for current forms and fees.

Registration/Transfer Forms

Sample Registration Form



Canadian Livestock Records Corporation
Telephone: (Toll-Free)1-877-833-7110 or 613-731-7110 Fax: 613-731-0704
Internet: www.clrc.ca E-Mail: clrc@clrc.ca

Belted Galloway Society, Inc.

APPLICATION FOR REGISTRATION
Make checks payable to Canadian Livestock Records Corporation

MAIL TO:
Canadian Livestock Records Corporation
2417 Holly Lane, Ottawa,
Ontario K1V 0M7
CANADA

All signatures must be in ink.
ALL INFORMATION MUST BE FILLED IN, PRINTED IN INK OR TYPEWRITTEN.
All animals must be properly tattooed BEFORE they can be registered.

TO AVOID UNNECESSARY DELAY, PLEASE CHECK THIS APPLICATION FOR ERRORS AND OMISSIONS BEFORE SUBMITTING IT.

Check if calf was produced as a result of:
Artificial Insemination ☐ Embryo Transplant ☐

Name: (limited to 35 characters including spaces and must begin with the Farm Name of the 1st Owner)

Embryo Cert. No.	Leave Blank	Sex	Steers: Enter Date of Castration	Sex of Twin, if any
		Male ☐ Female ☐ Steer ☐	Month / Day / Year	Male ☐ Female ☐

Date of Birth	Tattoo (report all markings)	Other Identification (also check a box to the right)	Brand
Month / Day / Year	Right Ear / Left Ear	Right Ear / Left Ear / Ear Tag ☐ / RFID Tag ☐	Location

COLOR
Black ☐ Dun ☐ Red ☐

CHECK ALL APPLICABLE
☐ Complete Belt ☐ Incomplete belt (M1) ☐ No belt (M2)
☐ White hair (on or above the level of the dewclaw) (M3) ☐ White elsewhere on the body (M4)
☐ White hair below the level of the dewclaw(s) (W)

Name of Sire:	Reg. No.
Name of Dam: (Unregistered dams must be solid colored or belted, polled and of beef type) / Breed or Cross-bred (Required if unregistered)	Reg. No.
Name and address of breeder (registered owner or lessee of dam at time of conception of this calf):	Member No.
Name and address of owner at birth (registered owner or lessee of dam at time she gave birth to this calf)	Member No.
Name and address of importer	Member No.

I declare that the information herein is to the best of my knowledge and belief true.	Signature of owner at birth or importer. X	Date on which importer purchased animal. Month / Day / Year

PERFORMANCE RECORDS (OPTIONAL)	WEANING WEIGHT Lbs.	DATE WEIGHED	DATE OF BIRTH OF DAM	Calving Ease
BIRTH WEIGHT Lbs.	365 DAY WEIGHT Lbs.	DATE WEIGHED	Month / Day / Year	U - Unassisted ☐ S - Surgical (Caesarean) ☐ E - Easy Pull ☐ M - Malpresentation ☐ H - Hard Pull ☐

CERTIFICATE OF SERVICE (fill in below or attach service report unless service already recorded on dam's certificate).
(whenever possible, attach A.I. Service Report)

I hereby declare that the herein named dam was served by the herein named sire on Month / Day / Year Or the herein named dam was exposed to the herein named sire FROM Month / Day / Year TO Month / Day / Year

X _____ Signature of owner of dam at time of service

X _____ Signature of owner of sire at time of service Member No._____

37regapp.cdr

Sample Transfer Form

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CANADIAN I.,IVESTOCK RECORDS CORPORATION

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(Bison. Cattll!, Sheep)

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[8].....◆ Seller's ID. No:_.....

Seller or authorized representative sign here.

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Owner of Service Sire or Owner of semen or authorized representative sign here.

Herd Records

Sample Calf Identification



Calf Identification Record

Dam #	Sire #	Calf Birth Record					Weaning		Comments
		Calf #	Sex	Birth date	Birth weight	Calving ease	Date	Weight	

Sample Individual Beef Cow Record



Indlividlual Beef Cow Reconl

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Future Year Designations
For Tattoo Codes

YEAR	LETTER DESIGNATION
2016	D
2017	E
2018	F
2019	G
2020	H
2021	J
2022	K
2023	L
2024	M
2025	N
2026	P
2027	R
2028	S
2029	T
2030	U