

North American Shetland Sheepbreeders Association Handbook



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The North American Shetland Sheepbreeders Association

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Researched and compiled by Shannon Fletcher

The Formation of the North American Shetland Sheepbreeders Association (NASSA)

The formation of the North American Shetland Sheepbreeders Association (NASSA) came about after Shetland sheep were imported into Canada in 1980 by Colonel G.D. Dailley. Those sheep came directly from the Shetland Islands and were registered with the Rare Breeds Survival Trust (RBST) of Great Britain. Their offspring were registered with the RBST from 1980 through 1990. It is important to note the tireless effort and extensive work of Linda Zuppann Grommes during this time that resulted in the formation of the North American Shetland Sheep Registry (NASSR), which quickly became NASSA.

NASSR was formed in early 1991, with the support and backing of the American Minor Breeds Conservancy (now the American Livestock Breeds Conservancy —ALBC), as well as the Shetland Sheep Breeders Group of the Rare Breeds Survival Trust. Incorporated as a nonprofit organization on December 13, 1993, NASSR officially became NASSA and a full association in 1994 when the bylaws of the association were established on March 26, 1994. The bylaws were revised on April 9, 1998. Today NASSA maintains a purebred registry and pedigree information while setting guidelines to facilitate the breeding of top quality animals within the purebred Shetland sheep population of North America.

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Introduction

This handbook is intended for use as a guide in selecting and breeding Shetland sheep in North America. It is a source of pertinent information for breeders to reference other breeders' thoughts and their solutions to specific concerns or items of interest, as well as a means to quickly access the North American Shetland Sheepbreeders Association (NASSA) rules and regulations, forms, and requirements. In North America, Shetlands are considered a somewhat primitive breed. This means that within certain parameters of what is acceptable, there are likely to be variations in fleeces, horn growth, etc. Shetland sheep are one of the few breeds that truly represent "something for everyone".

There is little written documentation of the history of Shetland sheep, which made especially important the use of many breeders' experiences and input —breeders in North America, Great Britain, and the Shetland Islands themselves whenever possible. These anecdotal summaries have been assembled to give a general overview and base line from which each breeder can benefit and grow through their application, with adjustments made for differing circumstances. The guidelines in this handbook will enable individuals to select, care for, and breed Shetland sheep with a growing sense of confidence. For more in depth information please read the suggested articles referenced at the bottom of the pages within this handbook.

NASSA strongly recommends that individuals visit different flocks when possible and speak with experienced, reputable breeders before deciding what specifics they seek in their own flock. Although the Shetlands are no longer considered endangered in their worldwide numbers, breeders in North America believe it is important to preserve the Shetland as it has been for so many hundreds of years —a unique and special animal.

With all this in mind, we believe you will find this booklet helpful and interesting. Many hours of reading, working, compiling, revising, and discussion went into this final version. Shetland breeders are quite an independent-minded lot, but all have the overall welfare of these diminutive sheep at heart.

Breed Background Information

Much of the history of Shetland sheep has been shrouded in mystery as there is little written documentation concerning them. Shetlands belong to the northern European short-tailed group of sheep that includes Finnsheep, Norwegian Spaelsau, Icelandics, and Romanovs. A long held theory was that they were descendents of sheep brought to the Shetland Islands by the Vikings more than 1,000 years ago. A more recent theory suggests that Shetlands are descendents of indigenous sheep that pre-dated the Vikings. Genetic testing may soon help to settle the matter.

Because of their isolation, the Shetland sheep evolved to become the perfect occupants of a very harsh and unforgiving environment. Inhabitants of the islands depended on these small and efficient sheep for most of their fiber needs, from soft, downy undergarments to sturdy, resilient outerwear durable enough to withstand the damp climate and the fierce north winds that prevail in the area. As shepherds grew more experienced with the different aspects of Shetland fleeces, the spinners and knitters also perfected certain elements of design and application. Island knitters became world renowned for their ability to spin and knit wedding shawls that can easily pass through a woman's wedding band. At the same time, Shetland sweaters are regarded as one of the sturdiest and most durable types known, as well as the most naturally colorful. The intricate designs and intense patterns are stunning in detail.

Despite their fame, the first formal study of the Shetland sheep did not commence until 1790, when the Royal Highland and Agricultural Society of Scotland sent representatives to investigate and report their findings. At that time they found, "There are two kinds of sheep producing fine wool to be found in the (Shetland) Islands" (Dr. Stanley Bowie, *NASSA News*, October 1995, "The Forum" —quoting the study findings.) They differentiated between the two types as being "kindly" (defined in Shetland as "soft"), and the "beaver" sheep. A beaver pelt has a heavy outer coat that protects the soft, much shorter undercoat, which is the most likely reason that name was chosen to describe them. Those sheep are the double-coated Shetlands we see today.

There have been attempts to "improve" the breed through crossbreeding, although the results were usually disappointing from the standpoint of wool fineness. Because of concern for maintaining the purity of the breed, the Shetland Flock Book Society (SFBS) of Shetland in 1927 adopted the breed standard which was later adopted by the Shetland Sheep Breeders Group (SSBG) in Great Britain. NASSA has adopted this standard in its effort to maintain those aspects of the breed that set Shetlands apart from other breeds.

In recent years there has developed a renewed interest in Shetland sheep that has resulted in a resurgence of their worldwide numbers. Breeders should be mindful that the best representatives of these wonderful animals are the ones that should be used as breeding stock.

Suggested reading:

SSBG Handbook, section 2 "The Breed —History"

NASSR News, (OCT 1991) page 2, "Shetland Sheep and Wool" by Dr. M.L. Ryder

Shetlands in North America

Dailley Importation

In 1980, after two years of negotiating with authorities, Colonel G.D. Dailley, successfully imported Shetland sheep into Canada. Mr. Michael Rosenberg of the Rare Breeds Survival Trust (RBST) of Great Britain and Mr. P.B.A. Hunter, of Lerwick, Shetland, provided invaluable advice and assistance for the project. With instructions to locate the finest stock available and a good variety of color, the Combined Flock Book Committee sent a jury of three to select the stock. Each Shetland met their strict requirements before being selected and given a “Z” prefixed ear tag. This is the only importation of purebred Shetland sheep into North America documented by the RBST. The rams were named Pierre (white), Hartland (blue/grey), Duncan (blue/grey), and Colonel (moorit). The ewes were named Canada 55 through Canada 82. Canada 55-58 were blue/grey, Canada 59-60 were black, Canada 61-69 were moorit, and Canada 70-82 were white. After five years of quarantine in Canada the offspring were allowed to leave the farm. Shetlands were then brought into the United States in 1986 by Tut and Linda Doane of Roxbury Vermont.

Flett Flock Importation

In 1948, three ewes and one ram were taken from the Orkney Islands and relocated to Saskatchewan, Canada, by the Flett family. In 1993, a select group of NASSA breeders began evaluation of the flock descendants to determine if they were eligible for NASSA registration. They concluded the sheep should be included but recommended they be assigned a provisional status and their registrations contain a “P” prefix. The provisional status was removed in 1995 and all documented Flett lineage Shetlands were entered into the registry with no restrictions. However, the Flock Book was then closed to any additional Shetlands that had not been NASSA approved and registered by that time.

Elite Genetics Semen Importation

In 1996, Elite Genetics, of Waukon, Iowa, was granted a temporary suspension of the ban on imported frozen semen from the United Kingdom into the United States. The semen was imported the following year from four Shetland rams in Great Britain for use in artificial insemination of ewes in the United States. The semen cannot be transferred to other countries. All rams were Shetland Sheep Breeders Group (SSBG) approved and represented a variety of colors: One each of moorit, black, dark brown, and grey katmoget. Semen was collected from two additional rams for use in 1998, with subsequent importations planned. Rams were required to have the scrapie resistant genotype present before being accepted into the program and those breeders participating in the use of the semen are required to be enrolled in and to adhere to, the USDA Scrapie Certification Program.

Independent individual importation of semen has also begun with certain restrictions.

Suggested reading:

NASSR News (OCT 1991), page 3, “The Colonel” by Tot Doane

NASSR News (JUL 1992), page 6, “Shetland sheep in Canada” by Colonel G.D. Dailley

NASSA News (JAN 1996), page 8, “A history of the Flett flock’s introduction into NASSA” by Judy Colvin

Utilizing Shetland Fleeces

In North America, the focus is to preserve the Shetland breed and the varieties within the breed. NASSA adopted the 1927 standard of the SFBS in order to have guidelines for selection of Shetland breeding stock. However, NASSA recognizes that different fleece types are present within purebred Shetland sheep as part of their heritage and these fleece variations are accepted in North America.

The two original types of fleeces noted in the 1790 study by the Royal Highland Agricultural Society of Scotland (those termed *kindly* and *beaver*) still appear, although not as often, due to the modifications in fleeces that occur when extremes in fleece type are used less often as breeding stock. With the knowledge that Shetland sheep were originally kept as a true multipurpose wool breed, it is easy to see why these characteristics should be maintained. The uses for each fleece type, however, should be noted for maximum potential. For instance, a well-defined, double-coated fleece with both coats intact would be an excellent choice for durable outerwear. If the wool is intended for something soft that is worn next to the skin (such as baby clothes or a scarf), a *kindly* fleece or the separated under coat of a *beaver* fleece would be the best choice (see next page for fleece descriptions and examples). The fleeces that lie between these two extremes —more typical of the Shetlands today, can be used for large number of items, according to the “handle” (i.e., “feel”). A Shetland fleece with a silky handle and nice drape would be ideal for garments that are spun worsted. These fleeces can be wo-ven into fine cloth items that do not pill as they are worn. They can also be combed, spun, and then knit into the renowned Fair Isle pattern sweaters.

Although Shetland fleeces require more attention to the characteristics within individual fleeces for maximum potential, this is an exciting aspect. In an era of homogenization, there is a definite quest for something different and special. No finer example of individualism can be found than the Shetland sheep.



double-coated yearling black ram
(note single white spot)



two year old white ram with single coat

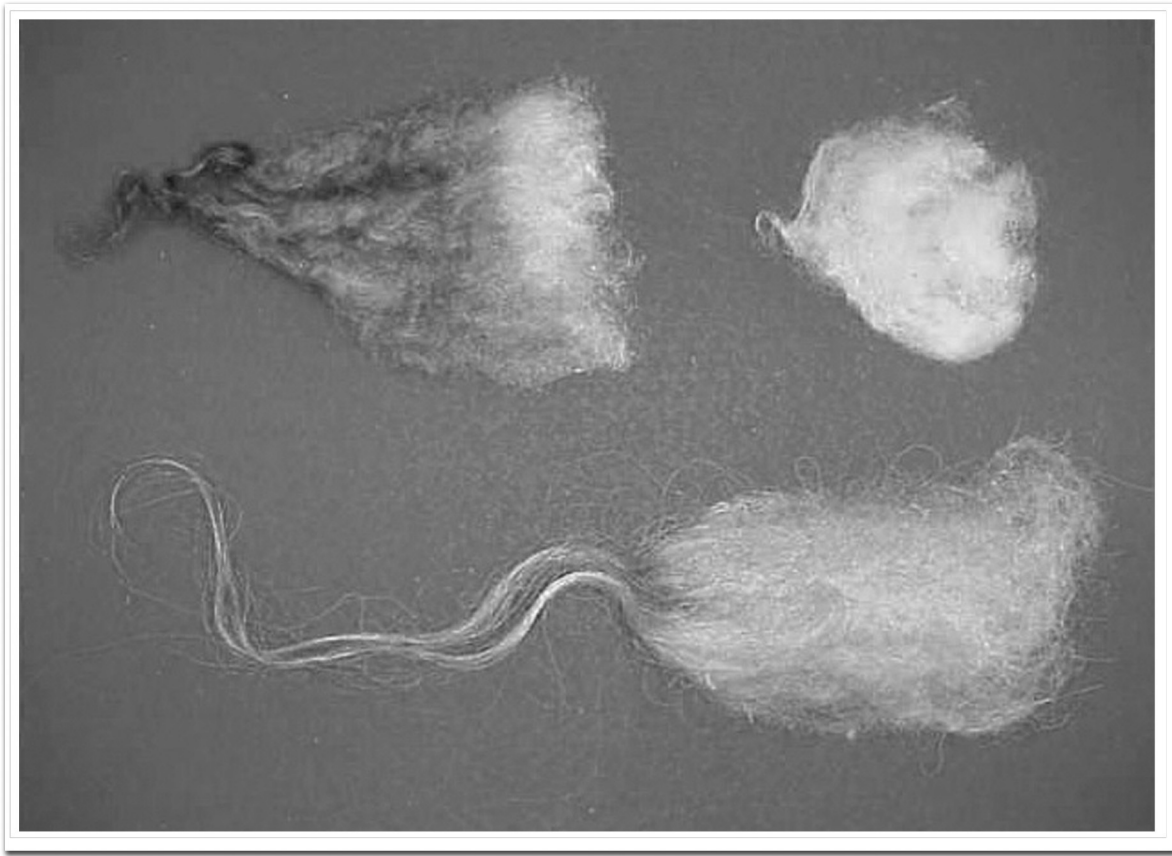
Suggested reading:

NASSR News (OCT 1991), page 5, “Ms. Spinster” by Chicki Mair

NASSR News (JAN 1992), page 5, “Ms. Spinster” by Chicki Mair

NASSA News (APR 1998), page 8, “Sorting fleeces...” by Chick Mair

Shetland Fleeces



longish and wavy (upper left in photo)

Most typically seen. Fleece lengths are normally in the 4” - 6” range, with a slight “wispieness” on the ends of each lock. The fleece has a very open quality with the ends of each lock well-closed. Spins very easily. Nice for worsted wool applications, as in fine woven fabrics or knitwear with well-defined patterns that must be retained, as in Fair Isle sweaters.

kindly (upper right in photo)

Extremely soft and downy. *Roos* nicely if caught in time. Short staple, typically 2” - 4” in length. Has a tendency to collect debris, but this can be easily removed through the use of the combing process during fiber preparation. Ideal for the softest, next-to-the-skin garments such as baby clothes.

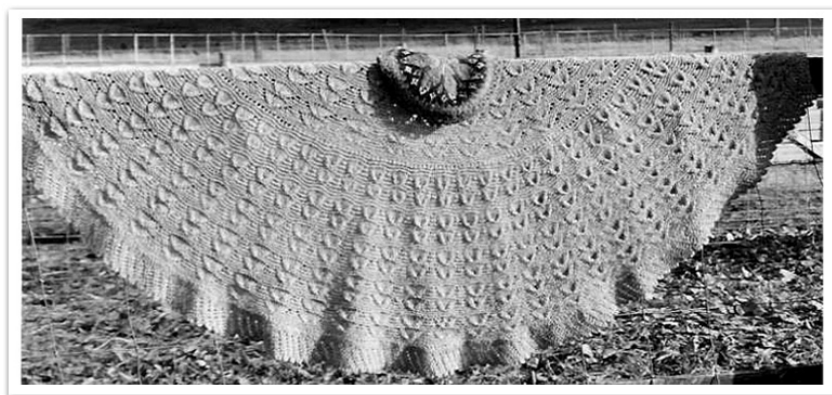
Double-coated (*beaver*) —also called “primitive” (bottom in photo)

Long and luxurious. Fleece lengths are usually in the 6” - 10” and even longer range. The ideal double coat has well-defined separate coats that can be readily separated. The outer coat is hair like, while the undercoat is soft and downy. The two coats may be spun separately or together. The outer coat serves as a protective layer against harsh weather. This is the most versatile fleece.

Fleece Applications

NASSA strongly recommends that breeders select for quality in their Shetland sheep, although it is important to have some goals in mind in implementing this. Shetland sheep have a history of providing a great variety in their fleeces, both in an individual animal and within each flock. In the Shetland Islands, a single fleece might have several applications, which may well be the reason that the fleece description was so loosely defined.

The islands were remote and isolated, and it was necessary to have sheep that provided for several needs. The finest wool from the neck was used to make the lace shawls that could be drawn through a woman's wedding ring. The fine wool of the shoulder and side was used for garments next to the skin or for "special" items. The coarser wool of the hindquarters (back legs) was woven into tweeds or outer garments. These multipurpose sheep served their owners well for centuries. No one type of fleece is more correct than another. Each is suitable for a different purpose and need.



NASSR News (OCT 1991), page 5, "Ms. Spinster" by Chicki Mair
NASSA News (JAN 1996), page 12, "Shetland wool through my fingers" by Diane Brown
NASSR News (APR 1992), page 7, "Shetland fleece... a pleasure to spin" by Ann Welch

Colors and Markings

Colors

- White

Greys to Black (listed from light to dark)

- Light grey
- Grey
- Emsket: dusky bluish-grey
- Shaela: dark steely-grey; like black frost
- Black

Browns (listed from light to dark:

- Musket: light greyish-brown
- Fawn
- Mioget: light moorit (yellowish-brown:
- Moorit: shades between fawn and dark reddish brown
- Dark brown

There are shades between these main colors; for example, a very pale fawn or musket, etc. Select the closest color from the list. If uncertain, use the more general “moorit” for varying shades of brown and “grey” for shades of grey.

Use the official name for any markings. If unsure, describe the markings on the registration application form.

Markings

- Bersugget: irregular patches of different colors; variegated
- Bielset; a complete circular band of different color around neck
- Bioget; white back and darker sides and belly, or conversely
- Blaeget; a lighter shade of the outer part of the wool fiber, especially in moorit and dark brown sheep
- Blaget: white with irregular dark patches resembling ground partly snow-covered
- Blettet: white spots on nose and top of head
- Bleset: dark colored with white stripe down forehead, or conversely
- Brandet; stripes of another color across body
- Bronget: dark colored with light-colored breast, or conversely
- Flecket: white with large black or brown patches (not as well defined as in Jacob sheep)
- Fronet: black-spotted with white head and black spots around eyes
- Gulmoget: light under-parts with dark-colored body; opposite of katmoget; mouflon pattern
- Ilget: white with spots or a different color (usually grey or black)
- Iset: dark colored with many white fibers giving bluish hue from a distance
- Katmoget: a light-colored body (usually grey or moorit) with dark belly and legs and moget facial markings
- Katmollet: light-colored nose and jaws
- Kraiget: neck (usually only front part) of different color from rest of body
- Kranset: dark colored with white around eyes and neck
- Krunet: dark colored with white patch on top of head
- Marlit: various shades of different colors; mottled
- Moget: see katmoget and gulmoget. Moget-faced is applied to the characteristic dark and light patches usually around the mouth, eyes, and ears
- Mirkface: white with dark patches on face
- Mullit: white with dark nose and jaws, or conversely
- Sholmet: of any color, other than white, with a white face
- Skeget: stripes of different colors on sides
- Smirslet: dark colored with white around the mouth, head, or neck
- Sokket: legs of a different color from that of the body
- Sponget: dark colored with small white spots, or conversely
- Snaelit: light-colored body with snow-white face
- Yuglet: color around eyes different from rest of body

Suggested reading:

NASSR NEWS (APR 1991) page 6

NASSR NEWS (APR 1992) page 3, by Dr. S.H.U. Bowie

NASSR NEWS (JUL 1996) page 10, by Dr. S.H.U. Bowie

Horn Configuration



**Troublesome horn growth!
Ends tipping in
toward neck.**

*Both rams less than
one year old*

**Excellent horn growth!
nice spacing at base of skull,
ends of horns tip outward,
away from neck and jaw.**



Generally, horns should rise above the head in a nice spiraling arc that increases with age. They should not be swept back. However, as in any horned breed of animal, variations are to be expected, within certain acceptable parameters. It should be noted that a ram's horns should be regarded as his "crowning glory." Although his horns may be spectacular in appearance, the ram's fleece quality and conformation are the most important aspects to consider. Rams without horns and ewes with horns are both acceptable, with horned ewes having a decidedly feminine appearance—horns much smaller and lighter than a ram's horns.

Horn growth should not be life threatening by growing into the skull or neck as the ram matures nor grow so close as to restrict a ram's ability to chew effectively. Many breeders determine "safe distance" as being enough room to easily pass an index finger between horn and jaw (or neck). Horn growth can be difficult to predict and can be influenced by many factors.

Because of horn growth unpredictability, breeders are encouraged to wait until a ram is a yearling before registering him, although it is permissible to register a ram lamb.

A Summary of Shetland Sheep Color Genetics

Phillip Sponenberg, DVM, PhD

Sheep color is complicated, and final color and pattern are the result of summing the changes over several different genetic addresses. A few of these are very important in Shetlands, others are more important in other breeds. The overall key is that dominant genes can hide recessive ones, recessive ones cannot hide dominant ones.

Agouti locus This address is the major determinant of light and dark symmetrical patterns. Nearly all patterns with symmetry are caused by this locus, and the end result is either black/grey/ white patterns or brown/fawn/white patterns. Light areas dominate, so whiter patterns dominate darker patterns. Some common choices for Shetlands are:

- white/tan: the common one for white sheep, and dominant to all others
- katmoget: called badgerface in other breeds, light on top, face bars, black belly
- grey: mixture of white and black fibers; common in Shetlands
- gulmoget: black and tan (reverse badger) black on top, pale belly
- no pattern: solid black in most instances and recessive to all

Extension locus This address interacts with Agouti to give important combinations. The only allele of interest is dominant black, which is historic in Shetlands but now is very rare if it occurs at all. If present, will cover up all Agouti patterns, including white.

- dominant black: covers up anything (absolutely anything) at Agouti locus
- normal-recessive: allows Agouti expression

Brown This replaces all black areas with brown instead of black. Called moorit in Shetlands, it changes all Agouti patterns from black-based to brown-based. Intensity and shade vary on different backgrounds, although darker shades are somewhat difficult to get.

- brown: moorit, recessive
- black: dominant

This means that black to black can produce brown; brown to brown breeds true.

Spots These occur as several different patterns, each unique in its control. These can be superimposed over any and all colors. Only two are common in Shetlands.

- minor spots: probably dominant (irregularly) extensive piebald spotting -think Jacobs! This is recessive but does occur in Shetlands. Colored speckles on face and legs of white sheep are complicated, caused by the combined action of many different genes.

Suggested reading:

NASSR News (act 1993) page 3, "Ideas on the Genetics of Color in Shetland Sheep" by Dr. Phillip Sponenberg, DVM, PhD
CABI Press, "The Genetics of Sheep" by Dr. Phillip Sponenberg, DVM, PhD, edited by Laurence Piper and Anatoly Ruvinsky



"Skerryvore Duncan"
moorit Shetland ram

photo by P. Holmes



"Sooner"
emsket ram lamb

photo by S. Fletcher



grey ewe lamb
approximately 4-6 months of age

photo by S. Fletcher



black ewe lamb
approximately 4-6 months old

photo by S. Fletcher



"Sundance"
4 year old moorit ram with golf visor as ram shield

photo by S. Fletcher



"Cha Cha"
moorit ewe lamb

photo by S. Fletcher



"Sula"

photo by S. Fletcher

1 1/2 year old fronet, sokket ewe with kindly fleece



"Twinkle"

photo by S. Fletcher

2 year old horned black ewe



"Magnolia"

photo by S. Fletcher

2 year old shaela ewe with double coat



"Finesse"

photo by S. Fletcher

4 year old emsket ewe with double coat



"Zip"

photo by S. Fletcher

2 year old fawn ewe with silky double coat



"Lyric"

photo by S. Fletcher

3 year old ewe with unusual dark grey front;
light grey hindquarters



"Chouteau" photo by S. Fletcher
5 year old shaela ram with silky double coat



"Maestro" photo by S. Fletcher
4 year old emsket ram with silky double coat



"Slick" photo by S. Fletcher
2 year old light grey ram



"Cornerstone" photo by S. Fletcher
yearling moorit ram



"Stonewall" photo by S. Fletcher
6 year old emsket ram with double coat



"Clayton" photo by S. Fletcher
yearling jet black ram



photo by D. Brown

"Baulder"
a bersugget ram lamb



photo by E. James

"Bronwen"
7 year old Shetland ewe



photo by N. Larsen

"Petunia"
a yuglet, mullit, sokket ewe



photo by J. Lehrhaupt

"Miranda"
katmoget ewe lamb



photo by E. James

"Pandora & Victor"
Shetland lambs



photo by S. Fletcher

"Cassidy"
4 1/2 year old bersugget ewe

Selection of Stock

In selecting breeding stock, a breeder should look first for healthy, well-cared-for Shetlands. Clear, bright eyes and an alert, active bearing convey the look and feel of health and vigor. Look for solid, straight legs carrying a firm body, with ribs well-sprung. (Note that older stock may not have quite the “high and tight” appearance they had in younger years.) Shetlands are slow to fully mature, although they can easily breed and lamb long before full maturity. A two-year-old is considered mature, although horn growth usually continues.

Once it has been determined that the animal in question appears healthy, by consulting the breed standard and noting the quality of the following items, selections can be fine tuned.

1. **Fleece** —color, intensity of color, and *handle* (i.e., the way it feels); evenness of crimp/wave; absence of kemp (short, coarse, white hairlike fibers with a fish-hook end that sheds separate from the fleece)
2. **Conformation and breed standard adherence** —straight, even legs that are well set apart, fine-boned, and of medium length with regard to the body; straight, broad back; rounded rump; short fluke-shape tail; well-formed mouth (teeth hit the pad evenly); chest of medium width and depth
3. **Production** (mature breeding animals)— *quality* of lambs produced and number of lambs produced
4. **(Ewes) single/twin births** —ability to produce and raise multiple births

Assess the entire animal for its merits and faults, especially when selecting a ram. A mediocre ram will seldom, if ever, produce superior offspring. Experienced breeders know the importance of an excellent ram. He can improve the overall quality of the flock through his offspring, whereas a single ewe that is less than ideal can have her offspring improved through the use of an excellent ram.

Since Shetlands are considered to be primarily a wool breed, fleece quality should be carefully assessed. Although a coarse fleece may have certain uses in your own flock, prospective buyers of its offspring may not appreciate those characteristics.

“Travis”, a 5 year old white Shetland ram with spotted knees and legs

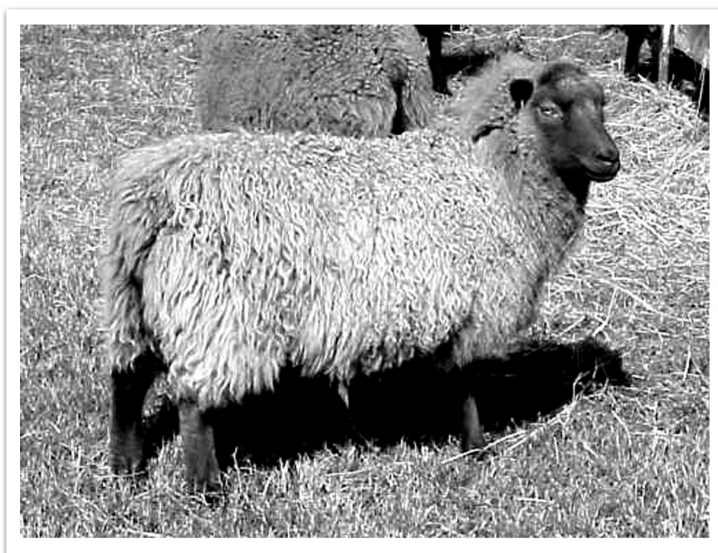


Care and Feeding

Shetland sheep have been surviving for centuries in harsh conditions, with minimal feed and limited shelter. While they are a hardy lot, thriving most of the time on pasture or a good mixed-grass hay, they still require good management practices. Regional climate differences may demand additional feed and mineral supplements. A pan of loose minerals specifically for sheep and goats should be available for each group. This insures that essential vitamins and minerals are not inadvertently excluded from their diet. Consult the county extension agent (local expert in plants/livestock, etc., provided through the university affiliate) for assistance in pasture stocking rates, appropriate pasture grasses for the area, etc.

Pregnant and lactating ewes may benefit from additional energy foods (such as corn) during the last four to five weeks of pregnancy and continuing until approximately one month after lambing. Again, the wide variety in climates and feed available in North America may or may not necessitate this. As with any ruminant, feed and feeding changes should take place gradually in order to allow the rumen to adjust to the changes. One of the quickest indications that the food is too rich and changes too fast is the evidence of *scouring* (diarrhea).

Healthy, active Shetlands will seldom have a condition score above a number two level. As a primitive breed they carry their fat reserves around their internal organs as a protective measure against harsh conditions, rather than along their backbones as is found in commercial breeds.



“Feather”, a 2 1/2 year old Triplet Mioget Ewe

Suggested reading:

NASSR News (JUL 1991), page 4, by Linda Zuppann

NASSR News (APR 1991), page 5, by Linda Zuppann

NASSR News (OCT 1991), pages 7 and 11

The Sheep Raiser's Manual, page 98, by William Kruesi

Shelter

Shetland sheep in full fleece are quite well insulated from the elements. If they have been shorn in mid-winter however, it is important to take that factor into account and provide additional shelter for them. Any animal with minimal protective cover on their skin appreciates a barrier against frigid winds and a roof to protect them from cold rains, heavy snows, or ice storms.

Requirements for Shetlands to cope with summer heat are very basic. Fleece lengths should be kept at a comfortable and manageable length (see “shearing” section for details). In addition to their feed, they should have plenty of shade and easy access to cool, clean water. During periods of excessive heat it is better to cool the ground they lie on rather than to throw water on them in an effort to cool them. Even the slightest breeze brings enormous relief to the stress of summer heat, so it is important to have them in areas where the air can circulate freely.

A three-sided loafing shed is an ideal shelter for Shetland sheep. The open side should face away from the most intense weather conditions. This allows the shelter to protect them from severe weather, while enabling adequate air circulation. The sheep will seek protection when they need it and feed outside at other times. If possible, a breeder might want to consider bolstering the bottom of the enclosure (approximately 18” to 20” high) to prevent damage by bored or frustrated rams that will be using the shelter.



Suggested reading.

The Sheep Raiser's Manual, page 19, by William Kruesi

"Storey's Guide to Raising Sheep", page 101, by Paula Simmons & Carol Ekarins

Many state universities' extension offices can provide information (including detailed drawings) for sheep housing and equipment

Shearing and *Rooing*

Shearing

Because of the wide range of climates in North America, shearing times may differ from one region to another. For instance, in northern areas, Shetlands may be shorn in February. This not only makes possible more room for each in the barn and around the feeding areas, but also minimizes contamination of fleeces by hay, lambing, and lambs climbing over tolerant moms. It also allows the breeder to check the condition of pregnant ewes more easily. In these areas of severe weather the sheep are kept sheltered until their fleeces grow enough to provide adequate protection for them. In other areas of the country, hot and humid summers may dictate shearing in May. Having a short fleece in summer allows protection from the summer sun (yes, they can and do sunburn) while permitting the insulating properties of wool to keep out a substantial amount of heat. Although they will still be warm, the heat that eventually does build up in the wool can more easily be dissipated when they have a short fleece.

“Rooing”

Shetland sheep are unusual in that many still naturally shed their wool. The process of removing the fleeces as they are shed is called *rooing*, in the Shetland Islands. Rooing is an especially nice aspect of Shetland sheep because there is no concern of having shearing nicks and cuts on the sheep, and there are no second cuts in the fleeces, especially important for handspinning uses. The natural end points—not sharp, cut ends—give both the old fleece and the new one a softer handle. Many times the new fleece has a more intense color as well.

In North America, shedding may start as early as the first part of April in more southern areas of the United States, but it can be late in June before this starts in northern areas. Some Shetlands may only partially roo. The first area to start shedding is usually the neck. The underside and the area around the back legs and tail are also easily rooed by early summer. Fleece that is ready to roo will easily come loose from the skin when grasped between a finger and thumb and gently pulled. If it does not, try again in a few days.



Two year old ram shedding his fleece. Note the neck/shoulder area and rump. *Kindly* fleece photo taken in May

Suggested reading:

NASSA News (APR 1996) page, “Shearing time” by Julie Guilette

NASSA News (JUL 1996) page “Rooing & Shearing” by Sheila Gear

Showing Shetland Sheep

Showing and exhibiting Shetlands is a delightful means of educating the public about the many aspects of this wonderful breed. When breeders first start showing Shetlands in show rings governed by United States rules and regulations, the judges may not fully appreciate the many fine points of Shetland sheep, because of their diminutive size compared with better known breeds. If that happens don't despair! As more judges become familiar with breed characteristics and standards, Shetland class sizes increase, as does the respect for them. It is vital that the judges are provided with as much factual information as possible prior to the show date.

Because the Shetland in North America is considered a somewhat primitive breed, with a variety of fleece types, it is possible that they could be more easily judged by using the card grading system used in the United Kingdom. That system judges each animal against the breed standard, rather than against the other sheep in the class. Each animal then is awarded a color card according to how they scored with regard to the breed standard. If the judges determine that there are no top quality animals entered (again, according to the breed standard) then no cards for that category are issued. Unfortunately, at this time there are few judges in North America trained to use the card grading system, so it is seldom used.

If you decide to show your Shetlands, whichever system is used for judging, it is the exhibitor's responsibility to be adequately prepared for the event. Key items to consider are:

1. Health papers, registration papers, etc., and proper individual identifications should all be ready for each animal entered in the show.
2. Have your Shetlands in top condition—clean and well fleeced (at least two inches of fleece growth).
3. Prior to the show itself, provide appropriate breed information to the show chairman. It is unethical to contact the judge(s) directly, so all contact must be through the show chairman only.
4. Present your sheep and yourself in a tidy manner. You are promoting Shetlands and your farm, so look professional, but have fun!

Suggested reading:

NASSR News (APR 1992), page 14, "Showing your Shetland" by Wendy Warner

NASSR News (OCT 1992), page 13, "Card grading... Maryland sheep/wool fest." by Don Bixby *NASSA News* (JUL 1996), page 14,

FAQ'S (Frequently Asked Questions)

Where can I find information about Shetland sheep?

Because there is very little written historical information on Shetland sheep, one of the best sources of information concerning Shetland sheep in North America is the "NASSA NEWS", the official quarterly newsletter of the Association. Back issues or particular articles in issues (referenced here in the Handbook) can be purchased from NASSA.

Who do I contact for specific issues such as memberships, registrations, etc.?

The quarterly newsletter of the association ("NASSA NEWS") has the names and addresses of the current contacts and the current board members and their respective addresses listed on page 2 of each issue.

How can I determine the color of my Shetlands?

The color "family" can be determined by checking along the backbone, which retains the deepest color, even when the rest of the fleece is very light in color. A grey/brown sheep with brown head and legs and face is in the musket family. Mouth/tongue color is thought to be a strong indicator of the animal's genotype color.

Can Shetlands survive in hot, humid weather?

Heat can be a serious problem for any breed of sheep, not just Shetlands, but because of the breed origins one must be especially careful to monitor them. Besides shade, cool water, and good air circulation, they should have short fleeces during the hottest months. High humidity is the most dangerous problem. The wool absorbs the moisture in the air, (it can absorb as much as 35% of its weight) generating even MORE heat for the animal.

How can I keep rams from fighting during breeding season?

If using more than one ram, and if you must have them close together, it is important to have a buffer zone between breeding pens. They should not be able to have nose-to-nose contact, and this is definitely a case of more (space) is better".

Is it normal for them to fight at other times as well?

Boys will be boys, but with the exception of new additions to the ram flock, normally there is just an occasional mild scuffle between one or two during the non-breeding months.

Why does my ram insist on butting buildings and fence posts?

Generally a ram that starts such behavior is bored or frustrated, usually starting this when confined alone in a small enclosure. Sometimes it is better to let him run with the ewes, unless overall space is extremely limited. Many times the addition of a "buddy" another ram or whether -is enough to stop his shenanigans.

What if I don't have any choice except to keep my ram in a small space?

If you have absolutely no choice except to keep your ram in a small area, you must be prepared to be creative in solutions to his (probable) destructive behavior. Ram shields over the face to limit his forward vision are effective. Old tires or bales of hay placed randomly throughout the pen can prevent him from causing serious problems. 2" steel pipe welded around the bottom 18" -20" of his enclosure will prevent him from causing harm to anything except him, but remember a frustrated ram will eventually find a means to vent his frustration. Don't let it be toward you!

Can Shetlands be used as a "meat" animal?

Yes, although the carcass size is small in purebred Shetlands, the flavor of the meat is very tasty, due to the leanness of the meat itself. Shetlands are often used to crossbreed with other, larger breeds in order to create a larger animal with tasty, lean meat.

How old should lambs be to register them?

Lambs can be registered at any age, although it is recommended that a breeder wait at least a few months in order to see how they develop and mature. However, if a breeder intends to show their Shetlands, they need to apply for registrations as soon as possible. Many shows require purebred animals to be registered in order to participate. Contact the show superintendent for a particular show for details and requirements.

I've heard that Shetland sheep are very hardy. Does this mean they don't require ANY care?

As a good steward for an animal's care - whether Shetland sheep or any other animal feed, minerals, and general health, must all be monitored. Periodically changes should be made to improve their conditioning and general welfare. They don't need "pampering", but they do deserve a breeder's interest and general involvement in their well being. They thrive on mixed grass pastures or mixed grass hay (with loose minerals available to each group at all times) under normal conditions —with no grain supplements—but there are occasions when they do benefit from additional nutrition, pregnant or lactating ewes, for example.

Can I use a ram lamb for breeding? Yes, but on a limited basis. A ram lamb in excellent general health and adequate size should be able to service 10 or 12 ewes with no problem. Ram lambs that are especially small- usually under 45 lbs. -should probably not be used the first year.

How many ewes can an adult ram service (breed) effectively?

A ram in excellent condition should be able to service 15 to possibly 25 ewes with no problem, but he should be monitored to make sure he doesn't lose his conditioning. With such a large group to service he might get somewhat "run down" and have an especially hard time when he rejoins the rest of the rams after breeding season.

Should I breed my ewe lambs?

This is a hotly debated question among breeders. Although Shetlands are quite capable of breeding, lambing, and then raising their lambs at such a young age, because they are a slow-maturing breed, many breeders now think that it is best to allow ewes time to more fully develop before their first lambing. It could make a difference in the ewe's general health overall and her ability to have a long productive life, rather than an intensely productive life for a short period of time.

When is the typical breeding season for Shetland sheep?

Generally speaking, October through January is considered breeding season in North America, but on occasion there have been exceptions, with ewes cycling through March -resulting in some cute little surprises!

What is the gestation period for Shetlands?

Typically, 147 days from breeding results in little Shetland bundles of joy, although a day or two on either side of that number is not unusual.

When should I separate lambs from the ewes?

For most breeders, weaning takes place at 10- 12 weeks of age. Some breeders do not wean lambs, instead allowing the mothers to wean them off when they are ready. A concern with this practice is that the mother's udder may be damaged and she may develop mastitis as a result of too eager butting by a large lamb, especially ram lambs and their horns. In addition, leaving a ram lamb with his mother may end up with a precocious ram breeding his mother or another ewe/ewes. (Oh yes, it has happened!)

What kind of fencing should I use for rams?

Generally speaking, for pastures, woven wire, with the addition of one or two strands of barbed wire at the top and at the bottom of the fence to prevent predators from coming over or under the fence is all that is needed. At least four foot high is recommended. If a ram is confined in a pen, then more substantial fencing is needed (The name "ram" is no accident). The main focus should be on approximately the bottom 18" of the enclosure. (Higher for taller rams; lower for shorter ones) This is the area they "ram", so it needs to be the strongest. 2" thick pipe welded at butting height all around the pen is quite effective.

How do I re-introduce rams to one another after breeding or bring in a new ram? There are many ways to do this and they all involve "trial and error" as to what works best with your flock. Some breeders advocate putting all rams in a VERY tiny enclosure for several days until the scuffling stops, but sometimes they start fighting again after they are freed- as if they were never confined. Face shields can be effective -some recommend shields only for the most aggressive, while others suggest ALL the rams be covered. A small pen, plus old tires, bales of hay, (anything that keeps them from a good running start), and a few days to sort out the ram hierarchy again has also been used effectively. Try one thing; if it doesn't work, try another! Fighting is inevitable, as they need to re-establish each ram's rank in the ram flock. The hard part is keeping things (somewhat) controlled, but things do settle down eventually.

Is it safe to castrate an adult ram?

NEVER try this without a veterinarian unless you have experience in castrating an adult ram. Unlike bulls, rams have an additional membrane in their scrotum that can seriously complicate things. Handled improperly, it could cause the death of the animal involved.

What is a good source for pasture stocking rates, feeding advice, appropriate grasses and fertilizers for the area, shelter, etc.?

Your local county extension agent can be one of the best sources of information for you in all these areas. They are usually provided through your local university as a means to assist in several different areas, including livestock. If unsure how to contact them, check with your local feed store or the local USDA office.

Where can I get general information on raising sheep?

There are many publications that contain helpful information on the care of sheep, medicines, etc., some of which are referenced at the bottom of each page in this booklet, with new publications coming out periodically.

My ram was so sweet when he was young, but has started to behave aggressively. What can I do about this behavior?

Intact male animals should always be treated with caution and respect for the potential damage they can cause. When they are young any aggressive acts should be dealt with immediately and firmly to impress on them such behavior is not acceptable. Never, ever trust a ram in any case. A variety of remedies are used to discourage aggressiveness. A squirt in the face with water—or even a bucket of water—may be effective; ram shields over the eyes to prevent a ram from being able to “target” anyone, or (preferred by most) the practice of taking the animal by the horn and the wool on the hind leg of that same side, and throwing him down hard on his side will most definitely get his attention and usually it makes a lasting impression if done properly.

Won't that hurt him?

It won't injure him, but it will make him realize he is not the dominant factor in the pasture/pen.

North American Shetland Sheepbreeders Association

Registration Rules

1) Registration

Only members in good standing with registered flocks may register or transfer purebred Shetland Sheep in the U.S. and Canada. Sheep must be purebred Shetland offspring of previously registered (NASSA, RBST, SSS, or Canadian Livestock Record Corporation- CLRC) parents. Cross-bred or graded-up individuals are not eligible for registration. Shetland sheep previously registered as provisional ("P" prefix) are now considered part of the main NASSA register (same as if they were "S" prefix.) A member's dues must be paid for the year a lamb is born, and for the current year, in order to register that animal. All dues must be paid at the current membership rate. To register animals, submit the information on the official form, signed and dated by the owner of the animal at birth. A computer printout containing the necessary information is also acceptable, provided it is properly signed and dated. To register animals born to a leased ewe, include a signed statement from the owner of the ewe, indicating the dates that the lease was effective. To register lambs sired by rams not owned by the breeder, include a completed ram lease form signed by the owner of the ram. To register lambs sired through artificial insemination, follow the steps outlined in the AI policy. Once registered, an animal's registered name and flock prefix may not be changed. Gross errors may be corrected by the original flock owner, upon submission of proof of error. Duplicate names within a flock shall have a roman numeral appended.

2) Unworthy or Unsound animals

Unworthy or unsound sheep should not be registered. This includes: rams without two testicles of approximately equal size in the scrotum; rams which have horn growth endangering health; and any sheep with serious hereditary health problems or abnormalities.

3) New Flocks

Before registering sheep, new members must register their flocks and their chosen flock name prefix (maximum 12 characters), which will prefix the names of all sheep born in that flock. If a flock prefix is not registered with NASSA, the registration applications will be returned to you. If a name is not provided, the animal will be registered with its NASSA registration number, ear tag number, or tattoo as its registered name.

4) Record Keeping

Each breeder is responsible for keeping accurate records of his/her flock and breedings. A ewe will be exposed to only one ram per cycle so that the sire of the lamb(s) is known. Pedigree records should be kept so that the exact breeding of all sheep in the flock is known. Breeder records will be made available to NASSA upon request.

5) Ear Tags

All sheep must have individual ear tags or tattoos of the breeder's choice affixed prior to registration.

6) Registration Certificates and Pedigrees

NASSA supplies registration certificates and 4-generation computer-generated pedigrees for each sheep registered.

7) Flock Book and Online Database

The Flock Book has been replaced by the online database. Access is through the website: www.shetland-sheep.org.

8) Transfers

At the time of sale, provide the buyer with either the original registration papers for any animal sold, or a copy of same. In the case of as yet unregistered animals, the seller may provide the buyer with copies of the registration papers of the animals' sire and dam. Per registration rules, it remains the responsibility of the owner of the animal at birth to register the lamb. Transfer of ownership should be completed within 60 days of the sale.

9) Adherence to Standard

Inspection of flocks or individual Shetlands is not required for registration. However, if the breed standard or registration rules are found to be violated, flock or individual sheep registrations may be suspended.

10) Breed Standard

NASSA uses the Shetland Sheep Standard, as adopted by the Shetland Sheep Flock Book Society in 1927. All registrations should conform to this standard.

11) Rules & Fees

Registration rules and associated fees may be periodically updated. Fees must be paid in US funds. Please submit a work order if using a paper registration form. Prices are listed on the registration form.

SHETLAND SHEEP STANDARD

Description and Scale of Points Score -100

Reproduced from the Shetland Flock Book Society

Objects & Standard of the Society 1927

Adopted by NASSA 03/2000

General character and appearance (Horned or Hornless)	9
Head- Good width between ears, tapering rapidly to base of nose, which should be broad and with little taper to the muzzle, hollow between cheeks and nose well marked	9
Face- Medium length of face from eyes to muzzle, nose prominent but not Roman, small mouth	5
Eyes- Full, bright, and active look. ..,	3
Ears- Fine, medium size, set well back, carried slightly above the horizontal	4
Neck- Full, tapers into a fairly broad chest	4
Shoulders- Wellset, top level with back	6
Chest- Medium width and deep.	5
Back- Level, with as much width as possible	9
Ribs- Well sprung and well ribbed up	4
Rump- Good width, with well turned rounded hips	5
Tail- Fluke tail. Wool at root forming the broad rounded part, and tapering suddenly to barely covered fine point. This is a strong character, and any crossing is easily made out by it. Length varies according to the size of sheep, rarely exceeds six inches, or thereby.	9
Legs of Mutton- Light, but very fine in quality	4
Skin- Varies according to color of wool. In white no blue or black coloring	2
Wool- Extra fine and soft texture, longish, wavy, and well closed. Wool on forehead and poll tapering into neck, likewise wool on cheeks. Colours: white, black or brown, moorit (from reddish to fawn). Greys (including Sheila). Other known colours -Mirkface (brownish spots on face); Catmogit (dark under parts from muzzle to tail and legs), Burrit (light underparts); also Blaegit, Fleckit, and Sholmit	20
Carriage-- Alert and nimble, with a smart active gait.	2

DISQUALIFICATIONS

- (a) Long heavy tail, broad to point
- (b) Bad wool, coarse and open
- (c) Very coarse wool on breeches
- (d) Deformities of jaws
- (e) Undersized animals
- (f) Defective coloured or badly shaped animals as sires
- (g) White hairs in moorit and black, and dark hairs in white wool

Note: The 1927 Shetland Flock Book Society Standard was developed for the original inspection of sheep for registration by the Society. The Standard includes seven specific faults that were considered serious enough to disqualify sheep from registration. While these disqualifications are still part of the Standard, NASSA does not have an inspection system and does not disqualify purebred Shetland sheep from registration. However, NASSA recommends that breeders take into consideration these disqualification faults when evaluating Shetland sheep for breeding purposes and for registration.