

Targhee Sheep Inspection Manual

Targhee Standards:

Lamb Production

Targhee ewes have good mothering and milking ability. Mature Targhee ewes raise a high percentage of twins under range conditions. Targhee ewes excel in pounds of lamb weaned per ewe bred. Lambs at weaning should be thick and in good body condition.

Fleece Production

Mature Targhee ewes shear heavy fleeces with a yield of 5 to 6 pounds of clean scoured wool (10 to 12 pounds of grease wool). Mature Targhee rams shear 8 to 11 pounds of clean scoured wool (16 to 22 pounds of grease wool). Twelve months growth of wool should exceed three inches in length. Desirable Targhee wool is 24.94 to 22.05 microns (60's and 62's in spinning count, or half-blood). A micron of 26.05 (58's) is the coarsest acceptable micron on the side. Sheep finer than 22.04 microns (64's) are acceptable with sufficient staple length. Fleeces should not vary more than 2.88 microns (two spinning counts) from side to britch, with 27.84 (56's) the coarsest acceptable britch. Fleeces should be dense, uniform and attractive in character.

Conformation

The Targhee type is broad and smooth with a level top. The rump and leg are well muscled and developed. The ideal Targhee is thick, deep-bodied and free from skin folds.

Size and Weight

The Targhee is a large sheep. Mature rams weigh from 200 to 300 pounds. Breeding ewes weigh from 140 to 200 pounds, depending on feed conditions.

Head

Targhee sheep are a polled (natural hornless animal) breed. The horn socket shall be free of any growth that is attached to the skull. Targhees have a bold, strong head type with open faces that are free from wool blindness.

Feet and Legs

The legs are straight with heavy bone. The pasterns are strong and straight.

Color

The color is white and no black or brown color in the fleece will be tolerated. The occurrence of small amounts of black or brown pigment on the face, ears, feet or lower legs is tolerated, but large amounts of color are objectionable. Any pigment spot should be no larger than the size of a quarter.

Score Card for Judging Targhee Sheep

Body

General Appearance10

A large sheep; symmetrical in outline; head erect; legs squarely placed. Rams - distinctly masculine. Ewes - strong, but feminine.

Head6

Free of horns or scurs; open white face with poll covering not to exceed two inches below eyes or impair vision, even in full fleece; moderately long ears covered with an even covering of white hair or very short wool; eyes clear and bright; mouth neither over nor undershot.

Neck.....2

Medium short; smoothness from head to shoulders; no wrinkles.

Back.....10

Strong; level; long with thick fleshing; shoulder smooth; well covered with natural fleshing.

Ribs6

Well sprung; deep underline; covered with natural fleshing.

Chest4

Broad and deep, providing ample width between forelegs; full in front without skin folds.

Rump4

Level on top to dock; wide at dock; deep in twist.

Legs.....6

Medium long in proportion to size; heavy bone; straight feet; strong pastern.

Leg.....6

Full to shank; thick and plump; deep full twist.

Scrotum, udder.....6

Two well developed testicles in rams. Two teats with udder well developed and well balanced in ewes.

Subtotal.....60

Fleece

Fleece25

Dense, long staple with uniform fiber quality from shoulder to thigh and carrying with uniformity to underline with heavy yield of clean wool.

Length5

Three to four inch staple in 12 months growth, uniform length and square tip.

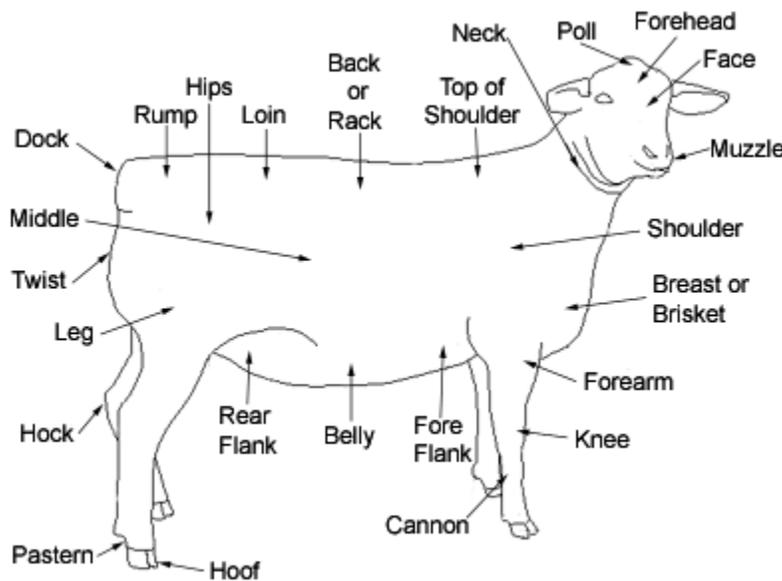
Uniformity of grade5
 Four spin counts permitted: 58, 60, 62 and 64. Not more than two grades variation from side to britch. A spinning count of 56 is the coarsest acceptable britch. Free of hair and kemp. Soft, elastic, white and clean.

Condition5
 Fibers well grown, free of breaks and strong throughout length. Yolk white or cream, not in excess and not dry or discolored. Fleece free from matting or catting and free of burrs, leaves and trash.

Subtotal.....40

Total score100

Parts of a Sheep



Inspection policy

The U.S. Targhee Sheep Association was developed from animals released by the U.S. Sheep Experiment Station in Dubois, Idaho. The offspring are examined by owners or official inspectors to meet Targhee Standards. The Association Secretary prepares registration certificates after owners inspect their animals and complete the appropriate application forms. Approved animals are tagged (with Association ear tags) and tattooed.

Many Targhee breeders have their ewes and rams examined by an official inspector in the belief that an unprejudiced opinion is best. It is recommended that new breeders have their flock examined by an official inspector or experienced Targhee breeder to aid in setting type and wool standards in the flock. The inspector may collect an inspection fee from the breeder at the time of inspection.

A temporary certificate is available through the Association Secretary, to be used until the offspring are old enough for inspection. Approved animals are tattooed with the Association ear tag number.

Identification of sheep

- Left Ear . . . Belongs to the Breeder
 - Breeder's flock tag is minimum identification.
- Right Ear . . . Belongs to the Association
- Sheep passing inspection have an association Registration Number on a Certificate with:
 - corresponding Association ear tag (imprinted with the Certificate Number) in their right ear.
 - A tattoo with the Certificate Number tattooed in their right ear.
 - When ear tags are lost, replacement tags should have the same numbers. Replacement tags are available through the Association Secretary for a fee.
- Information required on registration application:
 - Breeder's Flock Tag Number
 - Sex (Ewe or Ram)
 - Date of Birth (MM/DD/YY)
 - Type of Birth (Single, Twin, Triplet, etc.)
 - Sire Registration Number (5 digits)
 - Sire Flock Tag Number (We discourage alpha-numeric numbers; i.e. Pink 102)
 - Dam Registration Number (5 digits)
 - Dam Flock Tag Number (We discourage alpha-numeric numbers; i.e. Pink 1)

Faults

Targhees should not be registered with these faults:

- Horns
- Wrinkles on body
- Jaw irregularities
- Wool blind faces
- Inverted eyelids
- Completely bare heads
- Testicle deformities (including too small)
- Color in wool
- Medulated fibers
- Wool coarser than standards

Heritabilities

Heritability is the fraction of the total variation for a given trait within a population that is due to, or attributed to, the additive effect of the genes. The heritability for a given trait may vary between breeds or sheep populations of different genetic background. There are several methods of estimating heritabilities and the results obtained may differ. Heritability is important to estimate the amount of improvement that might be expected in one year or one generation. In general, heritabilities of less than 20 percent are considered low, between 20 percent and 40 percent are considered medium and over 40 percent considered high.

* The Sheepman's Production Handbook, Sheep Industry Development Program, Inc. Second Edition, December 1977.

Trait	Average heritability (%)	Range
Birth weight	30	9-61
Weaning weight		
100+ days at weaning	30	18-77
60 days at weaning	10	
Mature body weight	40	
Rate of gain	30	9-58
Type score		
weaning	10	
yearling	40	
Condition score (weaning)	17	
Face cover	56	13-78
Neck folds (weaning)	39	6-59
Skin folds	40	20-66
Grease fleece weight	38	17-61
Clean fleece weight	40	22-61
Clean yield	44	39-50
Staple length		
weaning	39	17-60
yearling	47	31-73
Fleece grade	35	29-43
Gestation length	45	
Date of lambing	37	
Multiple birth	15	7-40
Milk production	26	17-34
Number of lambs reared	13	
Loin eye area	53	23-93
Fat thickness over loin eye	23	19-29
Carcass weight/day of age	22	16-27
Carcass grade	12	10-15
Carcass length	31	9-46
Fat weight	57	45-69
Bone weight	30	28-32
Lean weight	39	

Retail cut weight	50	41-58
Dressing percent	10	7-13

Body

The sheep being inspected should first be looked over from a distance, so that views from the front, side and rear may be secured. This inspection should give Weaning weight a good idea of size, balance, width and depth of body; wool covering of the head; straightness of legs; conformation; and breed type. Next, the sheep should be inspected up close and traits verified by hand, the fleece inspected and testicles on rams checked.

A Targhee stud ram should come from the rams in the top of the group to be inspected. Much of size is controlled by environment, so when comparing size it is important that the rams to be considered are of the same age and have been fed the same ration. Otherwise, the fact that one ram is larger than another has no meaning. Other factors having an impact in the area of size are whether the ram is a single or multiple birth, how raised and age of dam. Individual weaning performance records can be a help in this area.

A Targhee ram should weigh from 200 to 300 pounds at maturity; a Targhee ewe should weigh from 140 to 200 pounds, depending on feed conditions. This leaves room for selection to be made on other traits (e.g., multiple births, wool, pedigree), while still having a large enough sheep.

By limiting selection to those rams in the upper 33 percent of eligible rams, forward progress will continue to be made. To select Targhee rams for the next generation from those rams in the bottom half of those available will move the breed backwards. However, it is acceptable to register a ram not in the top 33 percent if he is clearly superior in one or more traits other than size. He should be superior enough to benefit the breed. The market will discriminate against small rams, increasing the undesirability of registering rams in the bottom half of the group.



Ideal Type Targhee Ram



Ideal Type Targhee Ewes

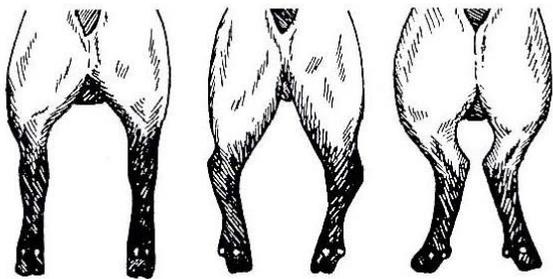
Conformation

When looking at the sheep, it is important that it is well balanced- that no one characteristic stands out as being extreme in its abundance or shortcomings. Although a sheep can have a strong point (e.g., length, thickness), the strength may be so extreme that it overshadows other qualities. If this is the case, it should be considered whether the sheep will pass along enough good traits to benefit the breed. It is important to know what the Targhee breed type is. Because a Targhee does not equal another breed's strong point (e.g., a Rambouillet's wool or a Columbia's size), it is not a fault. Targhee Standards should be studied so that we do not try to make the Targhee fit another breed's standards.

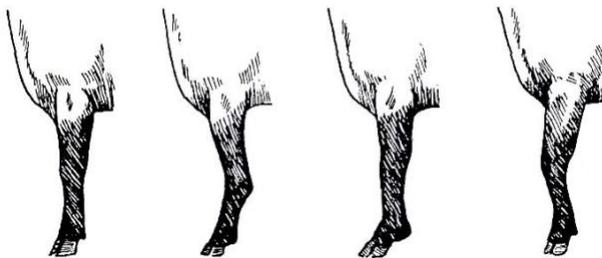
Feet & Legs

A Targhee's build should include having a leg squarely under each outside corner. The legs are straight with heavy bone. The pasterns are strong and straight. There is a tendency for the front legs to look as if they are coming out of the same location. This indicates not only incorrect front legs, but also a lack of breadth through the chest. This should be severely discriminated against. The back legs should be strong and straight. Some sheep are "cow hocked" to the extent that the hocks will rub together (or come close) and the feet point out as the sheep walks. While not a good trait, this should not be judged as harshly as crooked front legs.

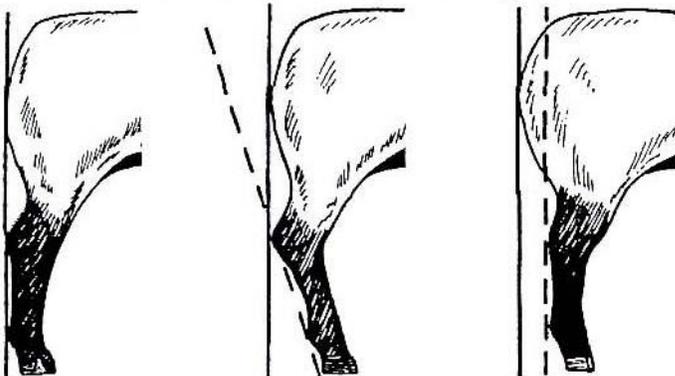
Rear View



Side View Front Legs



Side View Rear Legs





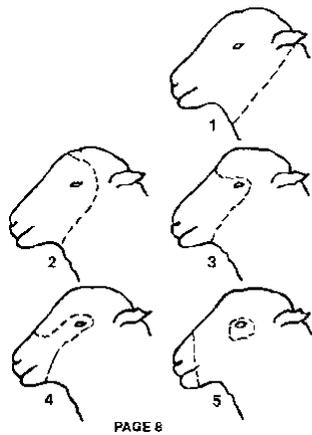
weak pasterns



Face cover

An ideal Targhee should have a number three face score; however, a number two or number four face score is acceptable. Number one and number five face scores are not permitted. Wool blind sheep are proven to be less fertile and less productive; bald headed sheep often sunburn easily (a problem in range sheep) and are often associated less total wool production over the whole body.

A Targhee should have a distinct channel from the lower eyelid to the muzzle. If in doubt, catch the sheep and check that at least two fingers can fit in the channel. Ideally, the wool on the top of the nose should not extend more than two inches below the eye.



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Wrinkles

One of the Targhee's early claims to fame was that it was a sheep without skin folds while still being 3/4 fine woolled background. About 1900, the Type 'A' Merino had been perfected, a breed which stressed wrinkles. The reasoning was that wrinkles would get more skin on the same size sheep and therefore more wool. This was accomplished, but the negative attributes more than made up for any gains. The sheep were hard to shear, susceptible to blow fly strikes and the wrinkles tended to have coarse guard hairs on them.

A Targhee should have no wrinkles around its body, across the hind quarters or over its back. A small wrinkle or two on the front of the neck is acceptable, as long as it does not continue over the top of the neck in front of the shoulders. Also, a small ridge running down the neck is acceptable ("leather") as long as it has no wrinkles crossing it. Wrinkles are a characteristic that should be discriminated against, as they are highly heritable and will get worse each generation. When a superior ram is raised with too many wrinkles for registry, nothing has been gained.

Jaws

If a sheep has passed the inspection from a distance, it is time to catch it and check several features up close. To check that the jaws of a sheep line up correctly, run a finger over the front of the gums. The teeth of the lower jaw should meet the pad of the upper jaw about the thickness of a quarter behind the front of the upper jaw pad. If the teeth are meeting the pad over 1/4 of an inch behind this point, the sheep should not be approved. The teeth of the lower jaw should not extend beyond the front of the pad, allowing one to feel the sharp edge of the teeth when the mouth is closed. Type of feed and feeding technique can affect teeth to a degree, but if they are farther than 1/8 inch ahead of the pad it is usually genetic and cannot be corrected under different environmental circumstances. These sheep should not be approved.



Normal Mouth

True, even bite,
Teeth meet evenly
with edge of upper pad

Undershot Jaw

"Parrot mouth"- Upper jaw too long

Overshot Jaw

Lower jaw too long,
teeth extend beyond the pad

Scurs

The Targhee Standards state that the breed is a natural polled breed and scurs are not accepted. The problem is in different interpretations of what constitutes a "scur." All will agree that a horn is not acceptable most will agree that any scur that is solidly attached and over one inch long is not acceptable. All will agree that a polled depression is desirable. It is the area between the last two that is debated. What is in this area is a small scur that can be easily (or sometimes not so easily) picked off by hand. Although this is the type of scur a ram may have, there is no guarantee that the type of scur he throws won't be more severe.



Ram lamb with solid scurs



With the U.S. Targhee Association stressing that Targhee rams are to be completely polled, it would be in the interest of the breeder to not use rams with any scurs. To use rams with scurs now will only delay a culling program that will have to take place at a later (and perhaps more costly) date.

Under no circumstances should a ewe be registered with scurs or horns.

This is not a new problem for the Association for it was discussed at the 1952 Directors Meeting.

Eyes

Eyes should be checked for turned in (entropic) lids and when found the sheep should be rejected for registration.



Testicles

Notice the plural - stud rams must have two! The testicles should be palpated. Check that they are of normal size: 30 em (12 inches) for yearling and older rams; 25 em (10 inches) for ram lambs. Scrotal circumference is measured with a flexible plastic or metal tape and is recorded in centimeters. The tape is formed into a sliding loop around the neck of the scrotum and slid slowly and carefully downward until the largest circumference is obtained. Care

should be taken, especially in cold weather, to palpate the testes to the bottom of the scrotum before measurement. Also, check that they are of near equal size, with no lumps or hard spots in the testes or the epididymis. Any ram failing here cannot be registered. It does not matter how good a ram is in all other areas if he cannot pass it on to offspring.

A ruling made at the 2007 National USTSA membership meeting states that the new standard for split scrotums in the Targhee breed reads as follows: A split between the testicles of more than 1/3 is considered a disqualifying fault and should not be registered.

Other

There are several items that have little bearing on the inspection, but should be pointed out if inspecting for a new breeder. These include length of the back, width of loin and muscle in the twist. A little time spent in advising new breeders in areas like these can make a significant difference in how soon they are making major contributions to the breed.

WOOL

When checking wool during an inspection there are several items to be considered.

Grade

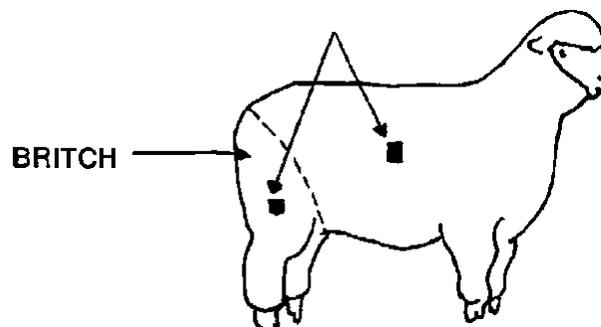
The Targhee is considered a half blood wooled

sheep. This is spinning counts 60's and 62's. Also accepted are 58's and 64's and finer, if they are of long enough staple length. Any coarser than 58's side is not acceptable, as better quality 56's and coarser wool can be produced on other breeds of sheep. Likewise, fine wool (64's or finer) can also be produced better on other breeds of sheep. This makes a narrow range of acceptable wool grades for Targhees, but it is in the breed's best interest to keep it that way.

To sample the wool, part it with the palms of the hands and check the crimp (the wavy formation in the fiber) for character (evenness of crimp or wave). A good, even crimped wool, that is, one with character indicates that a sheep is well bred and is thought to be more likely to breed true to type than a sheep with wool lacking good crimp.

A sample of wool should be taken by grasping a lock from just above the skin and pulling sharply. The sample should be taken at a point midway between

shoulder and hip and midway between back and belly lines. This represents the bulk of the fleece for grade. A sample should also be taken from a point even with the flank line on the hind leg. This will be the britch and it should be noted how far up the hind leg this grade of wool goes. If it goes much past the area indicated below, it will have a negative economic impact.



Visual grading of wool is not an exact science. What is actually being determined is the diameter of the wool fibers. These are measured in microns, which is 1/1,000 of a millimeter (or 1/25,400 of an inch), much too small for the human eye to detect. Wool that is 25/25,400 of an inch would be acceptable Targhee wool, but 27/25,400 would be too coarse. Since the eye cannot easily distinguish this other characteristics must be used to estimate the grade of the wool and, ultimately, its diameter.

The most obvious is the crimp in the wool; the smaller and more even the crimp, usually the finer the wool. Fine Merino wool can have 25 crimps per inch, while coarse Lincolns have only two crimps per inch. This method will be correct about 60 percent of the time. Feel can also aid in grading wool; the finer the wool, the softer the feel. Although the human eye cannot detect the difference of one or two microns, many good wool graders can perceive a difference in diameters of fibers. Wool grading is a combination of all of the above methods and takes much practice.

Any of the above methods require that there is some sort of absolute to measure against. One option is to buy a set of wool samples from the USDA.

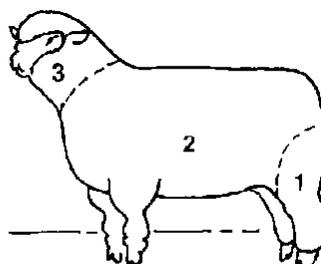
This contains about one pound of each spinning count, which will be enough that one can handle it and become familiar with the crimp and feel of each grade. A word of caution ... these samples are made up from "graded lots" and individual locks can be quite variable. A second option is to send samples from sheep one is familiar with to a wool lab and get the samples objectively measured (microned). A word of caution here also ... the wool grade on sheep can change from year to year so when the sample is taken for the micron, an identical sample should be taken to put on file. Just because the wool microned last year was a certain grade doesn't mean the wool on the same sheep is that grade this year. Also, do not use lamb wool for the samples. It can be very misleading to visually grade and will often micron differently than the mature animal. An absolute requirement in this area is to find someone who knows wool and have them give pointers on what to look for. A sheep extension specialist could probably do this -or recommend someone who could.

When looking at wool, it is important to understand the effect that different intensities of light can make. The brighter the light (i.e., direct sunlight), the coarser the wool will appear; the less light, the finer the wool will look. This can be misleading if one is used to looking at wool in a certain environment and then has to grade wool somewhere else.

A sheep will usually be finer on the shoulder than the britch. A Targhee should not be over two spinning counts difference - and more uniformity is stressed. Acceptable variations would be 64-60, 62-58, 60-56 and 58-56. Note that the last example is only one grade - a Targhee should go no coarser than a 56's britch. While Targhees have always promoted only one grade variation from shoulder to britch (e.g., 62-

60}, the results of microning Targhees at the Montana Central Ram Test would indicate that uniformity of that kind, while a reachable goal, is still the exception. Also, visual inspection of the same rams was usually one grade too fine on the britch. Rams that appeared to be 62-60 microned 62-58 (or coarser), so inspectors must not slacken their standards.

VARIATIONS OF DIFFERENT BODY AREAS IN WOOL FINENESS



One is coarsest --three the finest

Another area of uniformity that must be checked is in the wool that grows side by side in a lock. There are several ways to check this. One is that since the coarser fibers are quite often of longer staple length, they will grow through the bulk of the wool and show up as a fuzzy look over the surface of the wool. By running one's hand over the top of the wool, the longer fibers can be pulled out. If they have crimp they are wool, but are usually much coarser than the of the fleece. The inspector will have to make a judgment call as to what is too coarse or what are too many coarse fibers. If the goal is wool microning in the finer limits of the Targhee Standards, these sheep should be discriminated against. If the fibers are chalky white and straight (no crimp), they are medulated fibers (e.g., kemp) and the animal should be rejected for registry. These fibers will not spin or take dye.

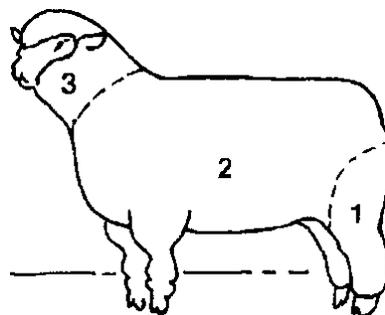
When one is checking a wool sample for grade it should be spread apart and inspected for wool fibers that are coarser looking because of their diameter or crimp. If it is obvious- it is bad.

The britch of the animal should be checked for medulated fibers. In severe cases, it will appear that the sheep has tufts of hair coming through the wool on the britch. Any sheep found with medulated fibers should be rejected for registration.

Staple length

Wool has to be of a minimum length, by grades, to work in the combing systems of a woolen mill. The minimum staple length (at 12 months fleece) for different grades is: 58's through 62's- 3-1/4 inches; 64's -3 inches. To estimate wool length for less than 12 months, calculate 1/4 of an inch per month with 1/4 inch added for shearing stubble. Short staple should be discriminated against relative to degree.

VARIATIONS OF DIFFERENT BODY AREAS IN WOOL LENGTH



One is longest - three the shortest

Staple length is not a method to "guess" the grade of wool. If the wool is 3 inches long at 12 months, this does not mean that the wool grade is 64's. Targhees do not grow coarse wool of the proper staple length - if the wool is 48's on the britch it will not be the same length that it would be on a Romney.

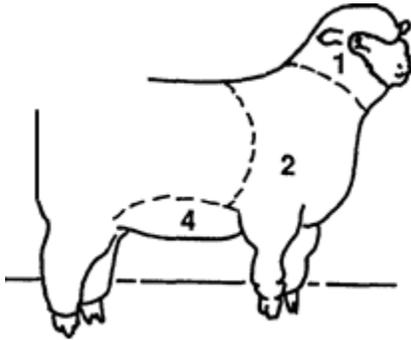
Density

Density of the fleece will usually show up in the results of a performance test if a fleece weight ratio is calculated. The lower the ratio, usually, the less dense the fleece. Density can be determined by grasping the wool on the side to feel its fullness, compactness and how much "spring" there is. After checking a number of sheep this way, the inspector will develop his/her own standard as to what is acceptable.

Another test is to part the fleece; when it resists being spread and only a small amount of skin can be seen, the fleece is dense. If, when the fleece is parted, a lot of skin shows, the fleece is lacking density. If lack of density is severe, the fleece will open up as the animal walks.

VARIATIONS OF DIFFERENT BODY AREAS IN WOOL DENSITY

One is most dense - four the least dense



A Merino has 40,000 to 56,000 wool follicles per square inch; a Targhee 28,000 to 35,000; and a Lincoln about 9,000 so there is also a relationship between grade and density to be considered.

Belly wool

Belly wool is the wool that is on the belly of a sheep and there is nothing wrong with it - as long as it is located there. If it is found elsewhere on the sheep, it is a serious economic problem. Belly wool is normally as long as, or longer than, side staple but it is "compressed," very low density, irregularly crimped and frequently tender with unattractive color. To check for belly wool go where it is (on the belly) and part the wool up the side of the sheep, watching where the type of wool changes to normal staple. If this happens much above a line from the flank to the pit of the front leg, the sheep should be heavily discriminated against.

Color

Targhee fleeces are white with no off colored wool. Any animals with black or brown spots in woolled areas cannot be registered. Black or brown spots on the face, ears, feet or lower legs are tolerated, but should not be larger than the size of a quarter or be too numerous. The spots must be in hairy areas only and never in the wool. Sheep with brown legs or face are not tolerated.

** Colored fibers in the wool are a major problem in the American wool industry, and one of the reasons for the premium prices paid by American woolen mills for Australian wool.

NOTES:

