

BREEDS OF SHEEP IN THE U.S. AND THEIR USES IN PRODUCTION

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The most recent edition of the Sheep Production Handbook (7th edition, 2002) lists 50 recognized breeds of sheep in the U.S., and there are some recent imports and perhaps some other breeds that are not on the list (e.g. Lacaune, Charollais, and Il de France) so there are over 50 breeds of sheep available to U.S. sheep producers. Most of the breeds are the result of several decades to a few centuries of natural selection and selection by man. Some of the newer breeds are the result of crossing existing breeds and subsequent selection by man using the principles of genetics.

We owe the existence of our many breeds largely to the lack of mobility of our ancestors. The farm communities of our ancestors were isolated. Farmers of old, in concert with their environment, selected among existing sheep for sheep that met their needs. Due to differences among indigenous stocks, differences in climate, soil and terrain, and different goals of farmers in particular communities, many different breeds evolved. This is well illustrated in England where the Dorset, Hampshire, Suffolk, Shropshire and Clun Forest each were developed in their own small isolated areas. The total area of the home ranges of all these breeds is small by today's standards, and it is doubtful if so many breeds would have been developed in today's world of easy mobility.

The world's many sheep breeds and their differences are to be cherished. While current economic considerations may dictate the use of relatively few breeds for commercial production of lamb, wool and milk at the present time, all breeds should be preserved. Secondary and minor breeds may have genes that will be valuable in the future, e.g. genes for resistance to diseases or for sheep products that are not anticipated today. All breeds of sheep are important, but at any one time, some breeds are more important than others because they best meet the current demands of the sheep industry and the consumers of sheep products.

Breed Registrations/Popularity

Table 1 presents the top ten breeds for number of purebred registrations in 20-year intervals from 1965/66 to 1985/86 to 2005/06. The numbers in Table 1 are not indicative, in some cases, of the relative number of animals of a particular breed in the U.S. sheep population. For example, there are more sheep of Rambouillet breeding in the U.S. than any other breed, but most of these animals are either non-registered purebreds or individuals of high percentage Rambouillet breeding in large range flocks. The Columbia breed also would be represented by a large proportion of non-registered animals in range flocks. However, changes over time in the number of registrations within a breed are indicative of changes in popularity of that particular breed.

Total purebred registrations decreased by 34,537 (-29.8 %) animals over the 40 year period from 1965/66 to 2005/06 (Table 1). However, there was not a constant decrease over this period because the number of registrations half-way through this period in 1985/86 was actually higher than in either 1965/66 or 2005/06. Total U.S. inventory of sheep and lambs decreased by 75 % from 1965/66 to 2005/06 (1965/66 = 24.9 million head, 1985/86 = 10.4 million head, and 2005/06 = 6.2 million head). The percentage decrease in total sheep inventory during this 40 year period was over twice as great as the percentage decrease in purebred registrations. This suggests that registered sheep numbers were not

reacting to the same factors or in the same manner as the total sheep inventory. Many purebred sheep are in small flocks with little potential for generating significant amounts of income or in “show” flocks that are maintained for competitive exhibition and recreation. Such flocks are less affected by external economic factors than larger commercial flocks so it is not surprising that trends in purebred registration numbers and total sheep inventory differ.

Eight breeds (Suffolk, Hampshire, Dorset, Southdown, Rambouillet, Columbia, Shropshire, and Montadale) were among the top 10 breeds for registration numbers in all three time periods (Table 1). Between 1965/66 and 1985/86, Polypay replaced Cheviot, and between 1985/86 and 2005/06, the two hair breeds of Dorper and Katahdin replaced Corriedale and Polypay in the top-10 group. Both Dorper and Katahdin have had increases in number of registrations in most years from the time their registration numbers were first reported in 1996 and 1995, respectively. It remains to be seen if this interest in hair breeds will be sustained into the future. The Dorset was the only breed present in 1965/66 that posted an increase in registration numbers over the past 40 years (+43.8 %, Table 1) and is evidence of the breed’s popularity as a general purpose breed for commercial production.

In 1965/66 and 1985/86, the top 10 breeds represented over 90 % of total registrations among all breeds, but this dropped to 74 % of total registrations among the top 10 breeds in 2005/06. This indicates a trend in recent years of increased interest in the breeding of minor breeds or new breeds among hobbyists, breed preservationists, and hand-spinners. There are more breed choices today than there were 40 years ago. Registration numbers were reported for 17 breeds in 1965/66, but this had increased to 33 breeds in 2005/06.

Table 1. Top 10 sheep breeds for annual number of purebred registrations at 20-year intervals from 1965/1966 to 1985/1986 to 2005/2006.

Average of 1965 and 1966 ^a				Average of 1985 and 1986 ^b				Average of 2005 and 2006 ^b					
Rank	Breed	No. of registrations	% of total registrations	Rank	Breed ^c	No. of registrations	% of total registrations	% Change from 1965/1966	Rank	Breed ^c	No. of registrations	% of total registrations	% Change from 1965/1966
1	Suffolk	32,314	27.9	1	Suffolk	65,133	44.7	101.6	1	Suffolk	13,428	16.5	-58.4
2	Hampshire	26,168	22.6	2	Hampshire	16,325	11.2	-37.6	2	Hampshire	8,784	10.8	-66.4
3	Corriedale	12,448	10.7	3	Dorset	13,672	9.4	125.2	3	Dorset	8,729	10.7	43.8
4	Southdown	8,986	7.7	4	Rambouillet	12,189	8.4	112.3	4	Dorper	7,020	8.6	NA ^d
5	Columbia	6,502	5.6	5	Columbia	7,756	5.3	19.3	5	Southdown	5,793	7.1	-35.5
6	Shropshire	6,352	5.5	6	Southdown	4,820	3.3	-46.4	6	Katahdin	5,316	6.5	NA ^d
7	Dorset	6,070	5.2	7	Corriedale	4,477	3.1	-64.0	7	Rambouillet	3,472	4.3	-39.5
8	Rambouillet	5,742	4.9	8	Shropshire	3,435	2.4	-45.9	8	Columbia	2,950	3.6	-54.6
9	Cheviot	3,274	2.8	9	Polypay	3,408	2.3	NA ^d	9	Shropshire	2,607 ^e	3.2	-59.0
10	Montadale	2,718	2.3	10	Montadale	2,764	1.9	1.7	10	Montadale	2,064	2.5	-24.1
Top 10 breeds		110,574	95.3	Top 10 breeds		133,979	92.0	21.2	Top 10 breeds		60,163	73.8	-45.6
All breeds		116,011	100.0	All breeds		145,638	100.0	25.5	All breeds		81,474	100.0	-29.8

^aMead (1967).

^bDeakin (2007).

^cBreeds in **bold type** were among the top 10 breeds in registration numbers at all three time periods.

^dBreed associations for the Polypay, Dorper, and Katahdin breeds were not established until after 1965/1966.

^eNumber of registrations for the Shropshire breed was not available for 2006, and number of registrations in only 2005 is reported.

Breed Evaluations

Well-designed experimental comparisons of the various breeds of sheep do not have a long history in the U.S. Such comparisons were begun about 45 years ago at the USDA stations at Dubois, Idaho and Beltsville, Maryland and about 30 years ago at the U.S. Meat Animal Research Station, Clay Center, Nebraska. During this same period of time, various state Land Grant Universities conducted numerous breed evaluation studies.

In order to obtain meaningful results, breed evaluation studies must sample many individuals of the breeds to be evaluated. If few individuals are sampled, there is a chance the selected individuals may be much better or far worse than the average of the breed, and subsequent results would not be indicative of the true performance of the breed. Ideally, breed evaluations would be repeated at several locations under different conditions to determine if breeds ranked similarly in different environments. Furthermore, breed evaluation is a continuous process. For example, no knowledgeable sheep producer would rely on comparative information for the Hampshire breed obtained from a 1950 study. The Hampshire of the present is a different sheep (at least in appearance) from that of the 1950's, and new studies must be conducted to accurately evaluate the "new" Hampshire. Also, new breeds are imported and developed, and they must be compared to existing breeds to determine their relative rank for economically important traits.

How the Breeds Rank

Tables 9 and 10 (at the end of the paper) present a general classification of 47 breeds of sheep from the Sheep Production Handbook. Many of these breeds have not been evaluated in scientific studies, and the information presented represents the collective opinions of the authors of the Breeding and Selection chapter of the handbook. While the information is very useful to broadly classify the available breeds for economically important traits, a more precise comparison of the breeds is necessary in order to make the most efficient use of available breeds in the production of lamb, wool, and milk.

In the following tables, results of breed comparison studies that have been reported in the U.S. peer-reviewed scientific literature over the past 30+ years are summarized. The comparative performance of a number of breeds is presented for number of lambs born per ewe lambing, fleece weight, postweaning average daily gain, fat thickness over the back at the 12th rib, and commercial milk production. An attempt to adjust for differences between studies was made by using differences among breeds common across studies. The results from each study were weighted equally. More confidence can be placed in those values obtained from many studies. The results have been expressed both as an average of performance and relative to the value for Suffolk sheep (relative to East Friesian sheep for milk production).

Table 2 presents the comparative performance of 21 breeds for prolificacy (number of lambs born per ewe lambing). Romanov and Finnsheep ewes have the highest prolificacy of any breeds and are estimated to give birth to approximately 1.80 to 1.50 times as many lambs as Suffolk ewes. Other breeds estimated to be superior to Suffolk for prolificacy are Booroola Merino with at least one copy of the high fertility gene (Fec^B), the hair breeds of St. Croix and Barbados, Clun Forest, and Polypay. However, there is need for more evaluations with several of these breeds in order to increase the accuracy of the results. Of the top 10 breeds, only Finnsheep and Suffolk have been evaluated in more than 4 studies.

Table 2. Comparative Performance of Breeds for Prolificacy

Rank	Breed	Number of studies	Average prolificacy	Prolificacy relative to Suffolk
1	Romanov	4	3.15	1.84
2	Finnsheep	9	2.52	1.47
3	Booroola Merino (Fec ^{B+})	2	2.19	1.28
4	St. Croix	4	2.07	1.21
5	Barbados	4	1.86	1.09
6	Clun Forest	1	1.83	1.07
7	Polypay	4	1.81	1.06
8	Suffolk	15	1.71	1.00
9	North Country Cheviot	1	1.70	.99
10	Border Leicester	1	1.65	.96
11	Dorset	10	1.62	.95
12	Hampshire	5	1.62	.95
13	Columbia	7	1.56	.91
14	Targhee	15	1.54	.90
15	Rambouillet	13	1.52	.89
16	Corriedale	3	1.51	.88
17	Coopworth	1	1.50	.88
18	Montadale	1	1.40	.82
19	Navajo	2	1.40	.82
20	Romney	1	1.32	.77
21	Texel	1	1.32	.77

Presented in Table 3 are the breed rankings for fleece weight. It is surprising that relatively few studies were found which compared breeds for fleece weight. Finnsheep and Suffolks were evaluated in more studies than any other breed. The long wool breed (Coopworth), medium wool breeds developed from fine wool breeds (Columbia, Corriedale, and Targhee), and fine wool breeds (Booroola Merino and Rambouillet) are estimated to produce fleeces weighing 36 to 78% more than Suffolk fleeces.

Table 3. Comparative Performance of Breeds for Fleece Weight

Rank	Breed	Number of studies	Average fleece wt., lb.	Fleece wt. relative to Suffolk
1	Coopworth	1	10.3	1.78
2	Booroola Merino	2	9.5	1.64
3	Columbia	5	9.4	1.62
4	Corriedale	1	8.6	1.48
5	Rambouillet	5	8.5	1.47
6	Targhee	6	7.9	1.36
7	Polypay	3	6.4	1.10
8	Hampshire	3	6.4	1.10
9	Dorset	3	5.9	1.02
10	Suffolk	6	5.8	1.00
11	Finnsheep	7	5.7	.98
12	Romanov	2	5.6	.97
13	Texel	1	5.2	.90
14	St. Croix	1	0.0	0.0
15	Barbados	1	0.0	0.0

Presented in Table 4 are the breed rankings for postweaning average daily gain. The results of these studies confirm the superiority of the Hampshire and Suffolk over all other breeds in the U.S. for rate of growth. The exceptional growth rate of the Suffolk is the reason for importations of North American Suffolks to Australia, New Zealand, England, and Latin America. It may be surprising to some that the Columbia ranks third in postweaning gain. This is a reflection of the large amount of selection pressure that has been placed on mature size in the Columbia breed in the past 30 years.

Table 4. Comparative Performance of Breeds for Postweaning Average Daily Gain

Rank	Breed	Number of studies	Average daily gain, lb.	ADG relative to Suffolk
1	Hampshire	7	.76	1.04
2	Suffolk	16	.73	1.00
3	Columbia	6	.68	.93
4	Oxford	2	.66	.90
5	Targhee	7	.66	.90
6	Texel	3	.63	.86
7	Montadale	1	.63	.86
8	Rambouillet	6	.63	.86
9	Dorset	9	.62	.85
10	Corriedale	4	.62	.85
11	North Country Cheviot	2	.62	.85
12	Polypay	1	.57	.78
13	Dorper	4	.57	.78
14	Romanov	4	.57	.78
15	Finnsheep	7	.57	.78
16	Booroola Merino	1	.55	.75
17	Navajo	2	.53	.73
18	Gulf Coast Native	1	.48	.66
19	St. Croix	7	.43	.59
20	Barbados	2	.39	.53
21	Katahdin	4	.38	.52

Presented in Table 5 are the breed rankings for fat thickness over the back of the carcass at the 12th rib. An attempt was made to only include results from those studies in which fat thickness was measured on lambs taken to the same live weight or where adjustments were made to a common live or carcass weight. The relatively small number of breeds reported in Table 5 and the relatively small number of studies per breed is largely a result of deleting studies that did not meet the latter criteria. Due to less data available for fat thickness than the other three traits, the breed rankings in Table 5 are probably less accurate than those in previous tables. These studies indicate that carcasses from all breeds will have at least 18% more fat over the back than carcasses of Suffolk lambs.

Table 6 presents commercial milk production of the East Friesian, Lacaune, and Dorset breeds measured at the Spooner Agricultural Research Station of the University of Wisconsin-Madison. This is the site of the only dairy sheep research flock in North America. The two European dairy breeds (East Friesian and Lacaune) produce considerably more milk than the Dorset breed, which has not been selected as a dairy breed.

Table 5. Comparative Performance of Breeds for 12th Rib Fat Thickness

Rank	Breed	Number of studies	Average fat thickness, in.	Fat thickness relative to Suffolk
1	Suffolk	9	.17	1.00
2	Targhee	1	.20	1.18
3	Dorset	4	.22	1.29
4	Montadale	1	.22	1.29
5	Hampshire	4	.23	1.35
6	Polypay	1	.24	1.41
7	North Country Cheviot	1	.24	1.41
8	St. Croix	1	.24	1.41
9	Columbia	3	.25	1.47
10	Oxford	1	.26	1.53
11	Rambouillet	1	.26	1.53
12	Finnsheep	6	.27	1.59
13	Dorper	4	.27	1.59
14	Texel	2	.29	1.71
15	Romanov	2	.30	1.76
16	Romney	1	.30	1.76
17	Katahdin	1	.30	1.76
18	Booroola Merino	1	.36	2.12
19	Lincoln	1	.37	2.18

Table 6. Comparative Performance of Breeds for Commercial Milk Production

Rank	Breed	Number of studies	Average milk production, lb.	Milk production relative to E. Friesian
1	East Friesian	1	658	1.00
2	Lacaune	1	627	.95
3	Dorset	1	409	.62

Unpublished data from the University of Wisconsin-Madison.

The preceding information attempts to rank available breeds for one trait in each of the general areas of reproduction, wool, growth, carcass merit, and lactation. There are, of course, many other traits which determine the usefulness of a breed, such as adaptability to the production system, grazing behavior, efficiency of production, longevity, length of the breeding season, fleece grade, disease and parasite resistance, etc. A complete evaluation of breeds should include all these traits and several more. The five traits chosen in this paper were the five for which there was the most information. The amount of comparative information was less for other traits.

In addition to the need for comparative information on additional traits, there is a need for some information on several more breeds. There are no recent peer-reviewed and published studies with comparative information for any traits for the American Cormo, Black Welsh Mountain, Bluefaced Leicester, California Red, California Variegated Mutant, Cheviot, Cotswold, Debouillet, Delaine-Merino, Icelandic, Jacob, Karakul, Panama, Perendale, Rideau, Scottish Blackface, Shetland, Shropshire, Southdown, Tunis, Wensleydale, or Wiltshire Horn breeds.

Breed Uses

Whether a purebred or commercial producer, selection of the correct breed or breeds is the most important step in reaching your selection/production goals. A sheep producer should select a breed that has the highest level of performance for the traits important in his/her operation. By doing this, the producer is capitalizing on the many years of previous selection that has taken place in the breeds for important traits. For example, a breeder who wants to develop a market selling rams to commercial producer to sire market lambs should not raise Finnsheep when there are breeds that are so superior to the Finnsheep for growth traits.

Presented in Table 7 are recommendations of breeds to meet the needs of various markets for purebred breeders. These recommendations are based upon the results of the scientific comparisons reported previously and observations where no comparative data were available.

Commercial producers are interested in selling commodities (lamb, wool, milk) and not genetic value. They need to take advantage of heterosis and the strong points of the various breeds in well-organized crossbreeding systems. For example, a spring-lambing farm flock whose main income is heavy market lambs should have productive crossbred ewes of the breeds in item 3 in Table 7 (e.g. Finnsheep x Rambouillet) mated to purebred or crossbred rams in item 1 above (e.g. Suffolk, Hampshire, or Suffolk x Hampshire). The commercial producer will generally purchase his rams and will either purchase or produce the crossbred ewes.

Only under very special conditions should commercial producers not use a crossbreeding system. However, straightbreeding or purebreeding could be the mating system of choice in the following situations. In very harsh environments there may be only one breed that is well adapted (e.g. Rambouillet to extensive range conditions). Some breeds are so superior to other breeds for production of the desired product that a crossbreeding system may result in lowered production or the production of an inferior product (e.g. East Friesian for milk production; certain naturally colored sheep for a particular fleece color).

Table 7. Classification of Some Breeds by Their Major Use

Major market for purebred breeder	Breeds	Selection emphasis
1. Rams for heavy terminal lamb production	Suffolk Hampshire Columbia Oxford Shropshire Texel	Growth rate Feed efficiency Carcass merit Lamb livability
2. Rams for light terminal lamb production	Texel Southdown Cheviot Charollais Dorper	Growth rate Feed efficiency Carcass merit Lamb livability
3. Rams for production of ewes in spring-lambing farm flocks	Romanov Finnsheep Rideau Polypay Dorset Rambouillet Targhee St. Croix Barbados Katahdin	Prolificacy Litter weaning weight
4. Rams for production of ewes in accelerated/fall-lambing flocks	Dorset Polypay Rambouillet Romanov Finnsheep St. Croix Barbados	Fertility from spring mating Prolificacy Litter weaning weight
5. Rams for production of ewes for extensive range conditions	Rambouillet Targhee Columbia Corriedale Romney Dorper	Litter weaning weight Wool production (except for the Dorper)
6. Rams for production of ewes for specialty fleece production	Romney Border Leicester Lincoln Natural colored Coopworth Icelandic Shetland	Wool quality Wool production Prolificacy
7. Rams for the production of dairy ewes	East Friesian Lacaune Rideau	Milk production Milk composition Prolificacy

Body Size and Quality Market Lamb Production

In the U.S. commercial sheep industry, over 95% of gross income comes from the selling of market lambs. Therefore, producers need to select breeds that will produce as desirable a market lamb as possible. We must not however, forget efficiency of the production system when selecting our breeds. For example, purebred Suffolk lambs produce very desirable carcasses, but require a purebreeding flock of Suffolks for their production. A more efficient production system may be one that uses crossbred Rambouillet x Finnsheep ewes mated to Suffolk rams. With this system, we are not producing the best market lamb possible, but we have an efficient system that produces lots of lambs of reasonable quality.

Market lambs of small breeds mature at lighter weights than market lambs of larger breeds, and therefore, at the same market weight, lambs from small breeds will be fatter than lambs from larger breeds. When taken to the heavy market weights desired by some of our commercial markets, lambs from the small breeds are much too fat. A Yield Grade 2 lamb has .16 to .25 inches of fat on the back at the 12th rib. This is considered a desirable fat thickness for a market lamb. Table 8 presents the estimated slaughter weights at which lambs from different size parents can be marketed in order to produce a Yield Grade 2 carcass. For example, if your market wants a 120 pound or heavier market lamb that is no fatter than a Yield Grade 2, and the mature weight of your ewes is 160 pounds, you would need to breed the ewes to a ram of a breed in which the mature weight of the ewes was 210 pounds or greater (i.e. Hampshire or Suffolk rams). An exceptionally large Columbia, Dorset, Lincoln, Oxford, or Shropshire ram may also produce YG2 lambs at 120 pounds or greater when mated to 160 pound ewes.

Table 8. Target slaughter weights^a to produce YG2 carcasses from ewe and wether lambs produced from sire and dam breeds of varying mature weights

Ewe breed mature wt., lb.	Sire breed mature wt., lb. (Wt. of ewes of the breed)													
	250	240	230	220	210	200	190	180	170	160	150	140	130	120
250	163	159	156	153	150	146	143	140	137	133	130	127	124	120
240	159	156	153	150	146	143	140	137	133	130	127	124	120	117
230	156	153	150	146	143	140	137	133	130	127	124	120	117	114
220	153	150	146	143	140	137	133	130	127	124	120	117	114	111
210	150	146	143	140	137	133	130	127	124	120	117	114	111	107
200	146	143	140	137	133	130	127	124	120	117	114	111	107	104
190	143	140	137	133	130	127	124	120	117	114	111	107	104	101
180	140	137	133	130	127	124	120	117	114	111	107	104	101	98
170	137	133	130	127	124	120	117	114	111	107	104	101	98	94
160	133	130	127	124	120	117	114	111	107	104	101	98	94	91
150	130	127	124	120	117	114	111	107	104	101	98	94	91	88
140	127	124	120	117	114	111	107	104	101	98	94	91	88	85
130	124	120	117	114	111	107	104	101	98	94	91	88	85	81
120	120	117	114	111	107	104	101	98	94	91	88	85	81	78

^aTarget slaughter weight = ((sire breed mature wt. + ewe breed mature wt.)/2) x .65.

Shaded areas indicate desired live weights for market lambs in most commercial markets.

Estimates of average mature ewe weights for some U.S. breeds:

230 - Suffolk; **210** - Hampshire; **200** - Columbia; **180** - Dorset, Lincoln, Oxford, Shropshire;

170 - Border Leicester, Corriedale, Dorper, East Friesian, Montadale, Romney, Targhee;

160 - North Country Cheviot, Polypay, Rambouillet, Texel; **150** - Coopworth, Romanov, Southdown, Tunis;

140 - Cheviot, Clun Forest, Finnsheep, Katahdin, Merino, Perendale, St. Croix;

130 - Cheviot, Scottish Blackface; **120** - Barbados, Karakul; **110** - Jacob; **90** - Shetland.

Many markets feel that Yield Grade 3 (.26 to .35 inches of fat) lambs also are acceptable. The target weights in Table 8 could be increased by 10 to 15 pounds if the goal were Yield Grade 3 lambs.

The point of this section is that a producer should select his breeds for his market. A producer that intends to sell market lambs to the general commercial market should not use straightbred sheep of the small breeds. Both he and his market will be disappointed.

Exotic or Rare Breeds

A short discussion of exotic or rare sheep breeds is in order. Raising a breed that is rare or unusual, in order to provide a service in preserving the breed or for selling to people interested in exotic animals may be a niche market that some producers may wish to consider. The rare breed may or may not produce some unique or quality product, but the main product is the animal itself.

The main reason for raising rare breeds probably should be for personal satisfaction. As a way to make money, this type of venture is usually somewhat risky. There are a limited number of customers that will want exotic sheep just to have them. The producers that make the most money are those that enter the business early and sell animals to not only the exotic animal enthusiast but also to other producers hoping to "cash in" on the exotic animal craze. The initial investment in breeding stock is high due to the shortage of supply.

Some rare or exotic breeds are the Cotswold, Black Welsh Mountain, California Reds, California Variegated Mutant, Icelandic, Jacob, Karakul, and Navajo-Churro. Many of these breeds also produce high quality and unique products (i.e. fleeces for hand spinning), but their main value arises from their scarcity and unique appearance.

Summary

Breeds differ for performance for traits influencing production of lamb, wool and milk. A purebred breeder should choose a breed that is above average in performance for the traits important to his/her customers and continue to select this breed for these traits. Commercial producers generally should be using crossbred ewes of breeds noted for high lamb production mated to sires of breeds noted for high growth rate. Only in a few special cases where there is only one best breed for the environment or a specialty market should commercial producers be producing only purebred animals.

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Table 9. General Classification of U.S. Breeds of Sheep^a – More Common Breeds

Breed	Country of origin	Wool type	Hardiness ^b	Mature size ^c	Growth rate ^b	Prolificacy ^b	Breeding season ^d	Avg. fiber diameter, microns	Ewe grease fleece wt., lb.
Border Leicester	England	Long	M-	L-	M+	M+	S	30-38	8-12
Cheviot	Scotland	Medium	M+	S+	L+	M	S	26-33	5-8
Columbia	U.S.	Medium	M+	L	H	M-	M	23-30	9-14
Coopworth	New Zealand	Long	M	M	M	M+	S	30-36	8-12
Corriedale	New Zealand	Medium	M+	M	M	M-	M	24-31	9-14
Dorset	England	Medium	M-	M	M	M	L	27-33	5-8
Finnsheep	Finland	Medium/Long	L+	S+	L+	H+	L ^e	24-31	3-7
Hampshire	England	Medium	M-	L	H	M	M	25-33	5-8
Montadale	U.S.	Medium	M	L-	M+	M	M	25-30	5-9
Oxford	England	Medium	M	L	H-	M	S	30-34	5-8
Polypay	U.S.	Medium	M	M+	M+	H-	L	24-33	6-10
Rambouillet	France/Germany	Fine	H	L-	M+	M-	L	19-24	9-14
Romney	England	Long	M-	M+	M	L	S	32-39	8-14
Shropshire	England	Medium	M-	L-	M+	M	M	25-33	5-8
Southdown	England	Medium	M-	M-	L+	M-	M	24-29	5-8
Suffolk	England	Medium	L	L+	H+	M+	M	26-33	3-7
Targhee	U.S.	Medium/fine	M+	L-	M+	M	L	21-25	8-14

^aThe evaluations of the breeds for hardiness, mature size, growth rate, and prolificacy are subjective to varying degrees and assume all breeds are performing in a common environment.

^bHardiness, growth rate, prolificacy: H-high; M-moderate; L-low

^cMature size: L-large; M-medium; S-small

^dBreeding season: L-long (6-8+mos.); S-short (<4mos.)

^eIn most cases, long breeding season implies early onset; Finnsheep have a late onset (Aug./Sept.) but a long season.

Table 10. General Classification of U.S. Breeds of Sheep^a – Numerically Less Common Breeds

Breed	Country of origin	Wool type	Hardiness ^b	Mature size ^c	Growth rate ^b	Prolificacy ^b	Breeding season ^d	Avg. fiber diameter, microns	Ewe grease fleece wt. lb.
American Cormo	Australia	Fine	H	M	M-	L	L	19-22	10-14
Barbados Blackbelly	Barbados	Hair	M+	S	L	M+	L	-	-
Black Welsh Mountain	Wales	Medium	H	S	M+	L+	S	29-36	3-4
Bluefaced Leicester	England	Long	M-	L	L	H-	S	26-31	6-8
Booroola Merino	Australia	Fine	M+	S	L	H+ (Fec ^B)	L	18-23	9-15
California Red	U.S.	Medium	M	S+	M	M-	L	26-31	4-7
CA Variegated Mutant	U.S.	Medium/ Fine	M	M	M	M	M	22-25	6-12
Clun Forest	England	Medium	M	M-	M+	M+	S	28-33	5-8
Cotswold	England	Long	M-	L	M-	M	S	33-40	11-15
Debouillet	U.S.	Fine	H	M	M-	L+	L	18-23	9-14
Delaine Merino	Spain	Fine	H	M-	M-	L+	L	17-22	9-14
East Friesian	Germany	Medium	L	L-	H-	H	S	27-31	8-12
Gulf Coast Native	U.S.	Medium	H	S	L	L	L	26-32	3-5
Icelandic	Iceland	Long	H	M-	L+	M+	S	20-28	3-5
Jacob's	England	Medium	M-	S	L	L	S	27-35	3-6
Karakul	Central Asia	Carpet	H	S+	L	L	M	24-36	4-8
Katahdin	U.S.	Hair	M+	M-	M	M+	L	-	-
Lincoln	England	Long	M-	L	M	L	S	34-41	10-14
Navajo-Churro	Spain	Carpet	H	S	L	L	L	28-40	3-7
North Country Cheviot	Scotland	Medium	M	M+	M+	M+	S	27-33	5-8
Panama	U.S.	Medium	M+	M+	M+	M	M	24-30	9-14
Perendale	New Zealand	Long	H	M-	M-	M-	S	30-38	7-10
Rideau Arcott	Canada	Medium	M+	M	M	H	L	25-31	6-8
Romanov	Russia	Medium/ Hair	H	S+	L+	H+	L	28-35	3-5
St. Croix	Virgin Islands	Hair	M	S+	L	M+	L	-	-
Scottish Blackface	Scotland	Carpet	H	S+	L+	L+	S	28-38	5-6
Shetland	Scotland	Medium	H	S-	L-	L	S	19-29	2-4
Texel	Netherlands	Medium	M	M+	M+	M+	M	28-33	7-9
Tunis	N. Africa	Medium	M+	M-	M-	L	M	26-31	4-8
Wiltshire Horn	England	Shedding	M	M	M	L	S	-	-

^aThe evaluations of the breeds for hardiness, mature size, growth rate, and prolificacy are subjective to varying degrees and assume all breeds are performing in a common environment.

^bHardiness, growth rate, prolificacy: H-high; M-moderate; L-low

^cMature size: L-large; M-medium; S-small

^dBreeding season: L-long (6-8+mos.); S-short (<4mos.)

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Dec. 23, 2008