

Sheep Farming in South Africa



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Afrino sheep near Smithfield in the Free State Province.

Sheep farming is practiced in all provinces throughout South Africa, but is traditionally concentrated in the more arid regions of the country. Although the income derived from sheep farming is modest compared to other livestock produced here, e.g. poultry, the sheep industry is vital in the rural and arid regions of South Africa.

In South Africa, sheep breeds are a mix of the hairy indigenous breeds, fat-tailed and fat-rumped breeds, and South African developed composite 'exotic' breeds, such as the SA mutton Merino. Depending on the breed, sheep can be used for fibre, using wool and hair, as well as for meat production, or are sometimes used to produce dairy products.

Meat production is aimed at local consumption, although limited quantities are exported to neighbouring countries. The exact number of sheep farmed in SA is unknown, but according to the Department of Agriculture, Forestry and Fisheries, the number was around 28 million in 2011.

This series focuses on South African sheep breeds, farming systems and feeding of sheep, in particular on the production of sheep meat - lamb and mutton, as well as Karoo meat.

By [Marinda Louw](#)

Breeds of Sheep for Meat in South Africa

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© Ile de France Sheep Breeder's Society of South Africa

The French breed, Ile de France, was introduced in 1903. It is a meat breed, but can be sheared for wool production.

In South Africa, sheep are commercially farmed for either meat or wool, but certain breeds yield good quality and quantity of both. This article will focus on sheep breeds used in South Africa for meat production only. Apart from the most commonly farmed breeds listed below, there are also developing breeds in SA, such as the Boesmanlander and the Bezuidenhout.

Dorper Sheep

The Dorper sheep was developed in South Africa and bred through the crossbreeding of the Persian sheep, Dorset and Van Rooy sheep. This resulted in a hardy, fast-growing meat breed suitable for low-rainfall regions.

The Dorper is a large and strongly-built meat sheep with a white body and black head. This fast-growing fertile breed produces lambs that are slaughter-ready at four months. The breed does not require shearing and its skin - with a smooth grain and no creasing - can be used for leather.

Black-headed Persian Sheep

The Black-headed Persian sheep is an ancient meat breed, and is believed to have originated in Somalia or the Middle East. The Persian (or 'Persie' in Afrikaans) is a fat-tailed sheep, covered in hair and is, therefore, well-adapted to hot, arid climates. The hornless sheep have long drooping ears, similar to goats. The three colour varieties of the Persian are the blackhead (90%), redhead (4%) and the speckled Persian (6%). Persians are excellent mothers with an even temperament. The breeding interval is 8 months and a high percentage of twins are produced.

It is bred exclusively for its meat, although its skin - the blackhead Persian specifically - can be used for the production of thin, high-grade leather products. The Persian is more resistant to disease than other sheep breeds and has been used for breeding with other breeds to improve their meat production.

Ile de France Sheep

The Ile de France sheep is a French meat breed, introduced in South Africa in 1903 for research. Commercial farming with this breed only started in the 1970s. The Ile de France is a large, smooth-bodied polled meat breed, producing strong white wool of 23 - 27 micron. Wool can contribute up to 20% of this breed's income. However, most consider the Ile de France a meat breed only, due to the rams' use in crossbreeding, to produce heavy early-maturing slaughter-ready lambs. First lambing is at 23 months, with little birthing problems. The Ile de France can be used for their milk and is classified as a dairy sheep in the USA.

Van Rooy Sheep



©Van Rooy Breeders Association of South Africa

The white Van Rooy sheep is a meat breed developed in South Africa and has white hair, prominent dewlap and a fat tail and rump.

A South African 'developed' meat sheep, the fertile Van Rooy sheep was bred to thrive in the drier climates of Southern Africa, typical of fat-tail breeds. The Van Rooy is a medium to large hornless sheep covered with white hair, with a thin wool undercoat on the front part of the body. It has a prominent chest with a dewlap and a fat tail. Fat distribution is localised in the rump and tail. Its thick skin makes the Van Rooy less susceptible to external parasites.

The fertile Van Rooy produce and raise lambs in extremely harsh conditions. It is often used in crossbreeding, due to its unique gene pool. Age of first lambing is 16 months. The Van Rooy exhibits a fast growth rate, and rams are often used to

crossbreed with other sheep breeds, to produce lambs with good growth rate and early fat accumulation.

Meatmaster Sheep

The Meatmaster sheep is another South African-developed meat breed, bred from the Damara, Dorper, Van Rooy and Ile de France breeds. The aim was to develop a hardy, fertile, meat sheep with low input costs, suitable for veld grazing systems. The Meatmaster was registered as a breed in 2007 and the Meatmaster Breed Society was established in 2008.

The Meatmaster is a non-fat tail medium-sized sheep, covered in a coat of short shiny hair of various colours and has a short woolly undercoat. The Meatmaster 100-day weaning weight is 27 kg. Meatmaster lambs can be slaughtered at five months of age, at around 38 kg, and may yield a carcass of 17.5 kg.

By [Marinda Louw](#)

Dual Purpose Sheep Breeds in South Africa

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The Afrino is a South African bred dual-purpose sheep breed that grows well on veld grazing systems.

Dual-purpose sheep breeds in South Africa refers to an animal that can be farmed for both the production of wool and meat. South African studies have found that farming with a suitable dual-purpose breed for a specific climate can generate a higher income than farming with a meat-only breed. However, many parameters play a role, not least how each breed reacts to climate conditions such as drought.

Therefore it is important to choose the right breed to adapt to current farming conditions and weather patterns. A few of the most important dual-purpose breeds in South Africa are listed below.

South African Mutton Merino

The dual-purpose Merino is also called the German Merino and was used to develop other sheep breeds such as the Dormer and Dohne Merino. Through breeding and selection, this breed is now considered uniquely South African. This large sheep produces both meat and good quality medium to strong wool of 21 - 23 micron. Although initially developed to utilise winter grazing in the Western Cape and rear their lambs before grazing deteriorates in summer, the mutton Merino adapts well to a range of climates and is found countrywide. It has a high resistance to internal parasites such as hairworm and is less susceptible to diseases such as Johne's disease. The age of first lambing is 22 months. The mutton Merino's 100-day weights are 29 kg for ewes and 32 kg for rams. The mutton Merino puts on fat when older and can, therefore, be slaughtered at a heavier live weight. Carcasses have an even fat distribution.

Merino Landsheep



©Ben du Plessis

The Merino Landsheep originally from Germany is an exceptionally large sheep with deep body.

The first Merino Landsheep was imported from Germany in 1956 and quickly adapted to South Africa's grazing conditions and climate. The Landsheep has a very long and deep body, producing heavy lamb carcasses of 20 - 25 kg at 100 to 120 days with an above average slaughter percentage of around 54%.

The breed is fertile and can produce three lambs every two years with first lambing at 12 - 15 months. Lambs are small at birth with very few birthing problems. The Merino Landsheep produce a good crop of medium to strong wool.

Dormer Sheep

The Dormer meat sheep was 'developed' in South Africa through crossbreeding Dorset Horn rams with German Merino ewes. The name 'Dormer' refers to the parent breeds Dorset and Merino. It was specifically bred for the cold and wet conditions of the winter rainfall areas of the Western Cape but is farmed successfully in temperate conditions on natural veld and cultivated pastures.

The Dormer produces strong white wool of average 27 microns. The well-muscled sheep shows early maturity age - first lambing is 18 months - and is very fertile; producing small, multiple lambs. The fast-growing breed exhibits a good feed conversion rate to produce slaughter-size lambs at an early age - lambs can be market-ready at three months, weighing 16 - 22 kg. The Dormer is resistant to the Muellerius lungworm.

Dohne Merino Sheep

The Dohne Merino sheep was developed from crossing South African Mutton Merino rams with Merino ewes to adapt to the sour grass veld areas in the Eastern Cape. Since the development of the breed in 1939, embryos of the Dohne have been exported to establish breeder societies in Australia and Uruguay.

A dual-purpose breed, the hornless white Dohne produces meat and fine to medium wool.

Dohne lambs can achieve a slaughter weight of 40 kg in 4 to 6 months. The Dohne's 100-day weaning weights are 29.9 kg for ewes and 31.1 kg for rams.

Afrino Sheep

A locally-developed dual-purpose sheep breed, the Afrino has 25% Merino, 25% Ronderib Afrikaner and 50% SA Mutton Merino as its ancestors. It was developed as a wool-producing sheep, suitable for extensive farming conditions with an early maturity for slaughter lamb production.

The Afrino is a large breed with wool of 18 - 22 microns which can contribute 20% of income; the rest is from meat production. The age of first lambing is about 17 months and the average marketing age (42 kg) is achieved in 7 to 9 months under veld grazing conditions. Afrinos do well in feedlot farming systems as feed is converted to muscle rather than fat.

Suffolk Sheep

The Suffolk sheep is a polled (hornless) English sheep breed that was brought to South Africa in the late 1890s. Some considered the Suffolk a meat breed but is also used for wool production.

A large muscular breed with black head and black legs, the sheep produces a carcass with a good ratio of lean meat and fat, but they also produce medium wool. Suffolks experience easy births, but rarely produce twins. Suffolk rams are often used for crossbreeding and produce heavy early-maturing lambs that can be market-ready in just over 2 months.

By [Marinda Louw](#)

Feeding of Sheep

Sheep Farming in South Africa



© *Ile de France Sheep Breeder's Society of South Africa*

Ill de France ewe on irrigated lusern pastures.

The feeding of sheep is an important component of sheep farming, as sheep obtain their nutritional requirements from the pastures they graze on or through feed when they are based in intensive farming systems. A balanced diet should include protein, energy (such as fats and carbohydrates), vitamins, minerals and fresh water.

The exact requirements of feeding of sheep is a complex topic. Not only is feeding determined by the type of sheep farming system (extensive or intensive) and the sheep breed but the quality of feed.

The production cycle of a sheep such as weaned lambs or lactating ewes and gender also determine the feeding regime of a sheep. For example, young rams can grow up to 26% faster than their sisters.

The best advice on feeding sheep is to consult a nutritional advisor in your specific region.

Types of Sheep Feed

Sheep feed can be divided into three categories - roughage, feed concentrates and supplements.

Roughage includes dry and green roughage, silages and pastures.

Feed concentrates include carbohydrate-rich low-protein concentrates and protein supplements.

Supplements will include minerals, vitamins and non-protein nitrogen such as urea.

Quality of Feed

When grain is used for sheep feed, ensure that is protected from insect infestation and dry to at least 12% moisture. A higher moisture level can lead to mould which can be toxic to animals.

If pastures are used for hay, ensure the correct moisture level of between 15 - 18% before baling. Too dry and nutrients will be lost, too wet and hay bales will rot.

The size of hay particles can determine the usage of the feed. The best use is when hay is ground or pelletised. Ground hay can be mixed with maize meal or molasses.

Feed Concentrates

Grains and seeds are low in fiber and thus highly digestible. Due to its high cost, feed concentrates are used to supplement grazing at specific times during a sheep's production cycle, for example during late pregnancy and lactation.

Supplements

Few raw materials will provide all the nutrients needed by sheep. The addition of macro minerals (e.g. Ca, P, Na and Mg), trace minerals (Cu, Co, Mn, Fe, Iron, Se and Zn) as well as vitamins such as A, D and E, will provide in the needs of high-production animals such as growing lambs and lactating ewes.

What is Supplementary Feeding?

In sheep farming, supplementary feeding comes in the form of grain and/or protein concentrates and provides energy or protein when the pasture, veld or stubble is lacking. Roughages such as hay and silage will be provided as a supplement to veld only when there is a shortage of available plant material.

‘Indigenous sheep breeds are generally well adapted to their environment in extensive veld-grazing farming systems and will under most conditions not require supplementary feeding, says Jan Hoon, an animal nutrition specialist from the Grootfontein Agricultural College. Supplementary feeding is therefore not standard practice with indigenous sheep breeds.

When used, supplements for shrubland grazing will have an energy base, while supplements for sheep grazing on marginal grasslands will have a higher protein content. Minerals, including trace elements, will form part of both grassland and shrubland supplements.

Sheep Farming Systems

Farmers run their sheep enterprises using natural grazing, pastures or intensive feeding systems. Often a combination of all is used. Feeding sheep will vary according to the quality of the grazing that is available.

Feedlot systems are often used to ‘round off’ a sheep before slaughter and requires a well-balanced feed formulation high in good quality protein to ensure fast muscle (meat) development. When cost is not a factor, the concentrate portion of a feedlot ration can make up 70% of the ration.

The feedlot ration may also be adapted depending on the age of the animals.

Feeding of Sheep Breeds

A sheep’s feed can be adapted according to the type of breed to ensure optimum growth for meat production or to improve wool quality.

Certain breeds such as indigenous sheep exhibit a good feed-to-weight conversion even on limited grazing, while other breeds need a finely tuned feed ration to ensure optimal growth.

Some farmers may choose to supplement the diet of the fiber-producing sheep with good quality protein which enhances fibre (wool or hair) growth. Often, these supplementary feeding will include sulphur which is a building block of fibre.

Production Cycle of Sheep

Feeding the right feed at the right time of a sheep's development is crucial. The reproductive ewe has the most variable feed requirements of any class of sheep and properly providing in her nutritional requirements will have the biggest impact on profitable production.

Please note:

Information is for educational purposes and is not intended to advise or prescribe feeding regimes. Contact an animal nutritionist or animal feed supplier for advice on specific feeding requirements.

By [Marinda Louw](#)

Indigenous Sheep Breeds in South Africa

Sheep Farming in South Africa



©Zandraai Boerdery

One of the oldest sheep breeds in South Africa, the Damara is a fat-tail breed suitable for farming in harsh and dry conditions.

Indigenous sheep breeds of South Africa are mostly animals well-adapted to extreme climates such as arid hot areas and are often of slender built with fat tails, used for meat production. Fat is stored here and used for energy in times of limited grazing.

Of the indigenous sheep in South Africa, the Damara is most used as a commercial sheep, but there are also farmers in the Limpopo province that use the BaPedi for commercial meat production. Indigenous sheep is best suited to extensive farming (veld grazing) systems.

Damara Sheep

The Damara sheep is a large animal originally from Namibia. It has a long and narrow fat tail and short hair, but develops a woolly undercoat that is shed in summer. Colouring can be brown, white, black or multi-coloured. Both rams and ewes have spiralled horns.

The Damara is resistant to both internal and external parasites as well as sheep sickness and can utilise both shrubland and, unlike other sheep breeds, also leaves.

First lambing is between 12 and 15 months with lambing intervals of seven to eight months. Lambs are small; less birthing complications often associated with larger lambs. Damara ewes are excellent mothers.

A slaughter weight of 18 kg will be reached in about seven months. Damara meat is lean with a fine texture and is not streaked with fat; the fat on the carcass is only 1 mm to 2 mm thick.

In a study comparing the leather quality of nine sheep breeds, the leather from Damara sheep was found to be superior in strength, with a very fine grain with superior strength. The Damara Breed Breeders Society of South Africa was established in 1992.

Namaqua Afrikaner



©Greta Snyman

The endangered Namaqua Afrikaner sheep can store more than 30% of its weight in the form of fat in its tail.

The Namaqua Afrikaner sheep is a hardy breed, believed to have descended from the Hottentot people who lived in pre-colonial South Africa. The Namaqua Afrikaner is now one of South Africa's most vulnerable and endangered sheep breeds, part of a conservation programme at the Northern Cape Department of Agriculture's

Carnarvon Experimental station. Surplus animals from the conservation breeding programs are sold to farmers.

The Namaqua Afrikaner has long legs, a narrow body and a long fat tail where up to 38% of its body weight can be stored. It has a smooth, white-haired coat, highly suitable for light leather products such as gloves. Animals may have red or black heads. Both rams and ewes have horns. The Namaqua Afrikaner is a late-maturing breed; its first lambing is at 16.5 months and thereafter follows an 8 to 9-month lambing cycle.

Ronderib Afrikaner Sheep

The 'Ronderib' in the name of this large fat-tailed sheep refers to this breed's oval-shaped ribs. An ancient breed, the Ronderib Afrikaner sheep is believed to have originated in the Middle East and Northeast Africa. In South Africa, it has adapted to the dry desert conditions of the Northern Cape province.

Its long thin legs serve the animal well when it needs to walk vast distances in search of grazing and water and its huge round tail stores 2 - 3 kg of fat as energy storage during droughts.

First lambing can be as early as 8 months. Lambs grow slow and are marketed at 10 - 12 months. As their carcasses tend to be lean and small, the 'Ronderib' is often used as an additional breed in sheep farming. In addition, Ronderib rams are used as teaser rams to prepare ewes for mating.

The substantial tail fat is often sold separately from the meat and used in the preparation of boerewors and droëwors (droëwors is a preserved meat product of finely minced meat and fat mixed with salt and spices and then dried). The breed is covered with a light cream fleece of wool with smooth, glossy hair, used for the manufacture of blankets. The skin is highly prized for fine leather goods.

Zulu Sheep



©Peter Oosthuizen

The indigenous Zulu sheep is a Nguni-type sheep with tiny ears and is adapted to humid conditions.

The Zulu sheep belongs to the Nguni type of sheep. The Nguni-type has a broad ancestral gene pool making it well adapted to harsh environmental conditions found in parts of KwaZulu-Natal. Characteristically it is resistant to tick-borne disease, they are quite drought and heat tolerant and are successful in marginal communal grazing conditions.

They are multi-coloured with a medium fat-tail and they are commonly farmed and traded by communal farmers. Small ears are common in the breed with some sheep that display ears that are short ('mouse ears' or swelamadlebe" - those with no ears), but these are only occasionally observed in the flocks due to a recessive gene.

Genetic purity is threatened due to crossbreeding with exotic breeds to improve carcass mass and mutton production. Studies done in 1995 estimated that only 3 000 pure Nguni sheep were left in South Africa.

BaPedi Sheep



©Keith Ramsay

A good example of an indigenous BaPedi ram.

The BaPedi sheep is an ancient breed believed to have migrated south into the Limpopo province a few centuries A.D. It is in this province where most BaPedi sheep are still found.

Another Nguni-type sheep, the BaPedi is fat-tailed sheep with white, brown and red hair, a small framed and long legs. It is said that this breed is immune to the viral disease, blue tongue as well as redwater and heartwater due to its resistant to ticks.

The BaPedi is an early maturing breed. It has high reproductive rates, e.g. two lambings per year with six-month intervals, with their first lambing at 11 months. BaPedi ewes can remain productive up to eight years of age. It takes 12 months for ram lambs and 14 months for ewes to reach an ideal slaughter weight of 30 kg (18 kg of meat).

By [Marinda Louw](#)

Karoo Meat

Sheep Farming in South Africa



Only sheep produced in the Karoo are allowed to use the Karoo Meat geographic indicator.

Over the years, the Karoo has generated such a great reputation for the quality of its Karoo lamb and mutton that the Karoo Development Foundation was founded in 2009 to protect producers against falsely labelled produce and ensure the benefits of using the “Karoo” name flows back to communities in this region.

The non-profit organisation, Karoo Meat of Origin, was launched thereafter to specifically look at ways to protect Karoo lamb and mutton. The organisation represents over 200 small and large farms over an area of two million hectares.

Geographic Indicator

Karoo Meat of Origin has so far made several attempts to register Karoo lamb as a geographical indicator in the meat industry in South Africa, similar to Parma Ham and Parmigiano Reggiano cheese. The registration followed thirteen years of extensive research to confirm the meat from the region is truly unique and also to identify best ways to gain the full advantage of the geographic indicator.

A geographic indicator is not a brand, but an intellectual property right, belonging to a specific place of origin. It in effect does not belong to individuals, but protects a region from individual exploitation by people not from the region or fraudsters within the region.

Government in March 2019 published new regulations relating to the Protection of Geographical Indications used on Agricultural Products, in which Karoo Meat of Origin as well as Rooibos and Honeybush that will protect the use of these names in other countries.

Karoo Meat Production Regions

Only lamb and mutton born in the Karoo may be labelled as Karoo Meat, Karoo Lamb or Karoo Mutton. The region is a semi-desert area stretching over parts of the Northern Cape, Western Cape and Eastern Cape. Camdeboo, Beaufort West, Karoo Hoogland, Kareeberg, Ubuntu, Emthanjeni, Umsobomvu and Inxuba Yethemba are all part of this region.

Certification of Karoo Meat



©Glennéis Kriel

Farmers need to comply with strict regulations for the meat to qualify as Karoo Meat.

Besides being born and bred in the Karoo, farmers need to comply with strict regulations for the meat to qualify as Karoo Meat. Amongst others, they need to prove they practice free range production on indigenous veldt, with rotation systems and stocking densities that are not damaging to the veld.

Sheep produced in this region, but finished in feedlots or raised on pasture, do not qualify to be sold under the geographic indicator, as these practices have a negative impact on the unique characteristics associated with Karoo Meat.

Sheep are not allowed to receive any growth stimulants, neither hormonal or antimicrobial, or preventative anti-microbial treatments. The animals also have to be handled in a way that does not compromise their welfare. For animal welfare reasons, sheep are not allowed to be transported for more than 250 km to an abattoir.

Abattoirs slaughtering animals for sale under the certification mark, need to be registered with the Red Meat Abattoir Association of South Africa and need to

comply with very high standards. The abattoir also needs to use a specific roller mark and stamp on the carcasses.

The meat also needs to be sold by a certified packer, processor or abattoir. The whole chain is audited to ensure full traceability, conformance to food standards and legal requirements.

Taste

Research found that the Karoo vegetation gives a unique herbal flavour to mutton and lamb from these regions.

Use of Karoo Meat

Karoo meat can be used like mutton or lamb's meat from any other region, with the part of the animal dictating the best way in which it should be prepared, ranging from usage in roasts to barbeques and stews.

By [Glennéis Kriel](#)

Meat Grading Systems - Mutton and Lamb

Sheep Farming in South Africa



©Marinda Louw

On this carcass, the AAA means lamb, the 222 means it is relatively lean, GM1 is the abattoir code. The green '3' is the conformation classification, indicates a medium carcass.

The meat grading systems of mutton and lamb in South Africa are in place to ensure quality meat production. Meat carcasses are graded after slaughtering to indicate the age and fat content of the meat. It also helps to determine the price of meat and makes it easier for consumers to identify their preferred quality of meat. For example, for many consumers a carcass of A2 will be the ideal meat quality; a young lean animal with a slight layer of fat. Other consumers may prefer more flavour and more fat and may want to choose a more economical grading such as C4.

Grading a carcass is done with a rollermark using food-grade vegetable-based ink that is totally safe and breaks down on cooking. The same grading system is used for beef, mutton, lamb and goat, but the grading for pork is different due to different fat distribution on pork meat.

Meat Grading Markings

The quality of meat is indicated on the carcass and stamped in letters in a certain colour, depending on the age of the animal, e.g. ABAB. The fat content of the meat is indicated in a square with a number inside and any damage on the carcass is indicated by a 1, 2 or 3. Carcasses will also be stamped with an abattoir identification code, e.g. ZWZ.

The Age of an Animal

Sheep are divided into four age groups according to the number of adult teeth the animal has. At birth, lambs have eight baby teeth on their lower jaw. At approximately one year the central pair of baby teeth are replaced by two permanent incisors. The second pair of incisors appear around two years of age and at three and four, the third and fourth pairs of permanent teeth appear.

An A-grade carcass is the most tender meat and indicate a lamb - no permanent teeth - and is marked in purple. AB indicates two teeth (between one and two years of age) and is stamped on the carcass in green ink.

A brown mark is used for grading B, indicating an older sheep with four teeth and a carcass with a red grading of C will indicate an older animal (mutton) with six or more adult teeth. Gradings AB, B and C are considered adult animals, therefore considered 'mutton'. The age class of an animal is indicated on the carcass with a row of three letters e.g. AAA.

Fat Content of Meat

The fat layer and the distribution of fat on the carcass are determined by expert meat graders which classify a carcass into seven fat classifications.

A fat classification of 0 means that the carcass has no fat, while a classification of 6 means that a carcass is excessively overfat.

The fatness class of an animal is indicated by a triple number such as 222.

By [Marinda Louw](#)