
5.2 The Americas

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There are no prolific breeds native to North, Central or South America. The Barbados Blackbelly of the Caribbean traces its origin to Africa and the Netherlands (see Subchapter 3.6). All the prolific breeds currently available in the Americas were imported from Europe and Oceania.

Assaf

Peru is believed to be the only country to have imported the Assaf breed from Israel. Five rams and 12 ewes were imported in 1988.

Barbados Blackbelly

St Lucia may have been the first country to import Barbados Blackbelly in 1902. The breed is currently widespread throughout other Caribbean countries and is now found in Antigua, Jamaica, Bahamas, Trinidad and Tobago, Guyana and the Antilles.

Barbados Blackbelly were also exported to North America. They first arrived in the United States in 1904, when the United States Department of Agriculture imported 4 ewes and 1 ram and quarantined them in Maryland. All Barbados Blackbelly sheep found in the United States and Canada now are probably the descendants of these animals. In 1968 the Canada Department of Agriculture also imported Barbados Blackbelly sheep, but they were slaughtered upon arrival because they displayed blue tongue titers. Very few Barbados Blackbelly are now found in Canada. They are currently in rare breed conservatories in Ontario and Quebec.

The first Barbados Blackbelly sheep in Mexico were brought directly from the Caribbean island of Barbados in the early 1970s (R. Ríos-Reyes, 1994, personal communication). They were imported by the Mexican federal government, specifically by the Secretaría de Agricultura y Ganadería, now named Secretaría de Agricultura y Recursos Hidráulicos (SARH). The government imported these sheep to benefit small producers in tropical areas of Mexico, mainly in the Yucatan Peninsula. A livestock research station belonging to the Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias, has kept a medium-size flock for research purposes. Since then, some sheep have been distributed gradually to various places in Mexico.

Barbados Blackbelly were also exported to Venezuela, Surinam, Peru and Panama.

Booroola Merino

In 1982 Texas A & M University arranged the first importation of Booroola Merino to North America. Three rams with Booroola Merino ancestry were imported, before the fact that a major gene was present was established. One of the rams was 3/4 Booroola Merino and the other two were 1/2 Booroola and 1/2 Coopworth (Young, 1991).

In 1982 the United States Department of Agriculture imported pure Booroola Merino sheep from New Zealand to North America; in 1985 the Canada Department of Agriculture followed suit (Fahmy and Casonguay, 1991; Young, 1991). Each importation comprised 5 Booroola Merino rams and about 40 embryos carried in Coopworth surrogate ewes. The rams and embryos were certified homozygous for the F gene. The source of these animals was the flock at Tara Hills, part of the New Zealand Ministry of Agriculture and Food. In the United States, Booroola Merino were raised at the Meat Animal Research Center (MARC) at Clay Center, Nebraska, and in Canada, they were raised at La Pocatière Experimental Farm, Quebec. Twenty-nine Booroola lambs (17 males and 12 females) were born to the Coopworth ewes in the United States and 32 (17 males and 15 females) were born in Canada.

In 1986 a private sheep breeder in Ontario imported 2 Booroola × Dorset rams and 3 pregnant Dorset ewes bred to Booroola rams from Moir Farm in New Zealand. In the same year, a private American company in California, All American Lamb, imported 3 rams from Haldon Station in New Zealand, followed by 175 rams in 1987–1988 (Young, 1991).

Planned breeding with Booroola Merino gene carrier animals is currently under way on eight farms in Canada. In addition, many farms bought from auctions, rams destined for slaughter which were heterozygous for the gene, and used them for breeding (Fahmy and Castonguay, 1991).

Uruguay, Brazil and Chile were the only countries in South America to import the Booroola Merino gene. Only rams were imported. In Uruguay a private breeder (Stud Santa Elena) imported 2 homozygous carriers in 1979. At present six farms housing about 6000 sheep are using Booroola gene carrier animals (Fernandez-Abella, 1990). In Brazil 5 heterozygous rams (1/2 Romney Marsh and 1/2 Booroola homozygous for the *FecB* gene) were imported in 1980 from Haldon Station in New Zealand and were mated to Romney ewes (Moraes *et al.*, 1991). Only 1 heterozygous Booroola ram was imported by Chile, but it died 2 years later without leaving sizeable progeny.

Charollais

Since 1993 three private Canadian establishments have imported Charollais embryos, two from the United Kingdom and one from France.

East Friesian

In 1970–1971 Canada imported 5 East Friesian rams from Scotland. The rams were mated to several genotypes of females. The progeny from these matings formed the foundation stock of the Arcott Rideau breed (Shrestha *et al.*, 1982).

In 1992 a private breeder in British Columbia imported to Canada semen from 5 East Friesian rams from Switzerland. The semen was used to inseminate Rideau ewes. The resulting progeny are animals with about 57% East Friesian ancestry, which are systematically graded to East Friesian. Rams with 57 and 78.5% East Friesian ancestry were exported to the United States (H. Gasser, 1994, personal communication).

Argentina first imported East Friesian sheep in 1910. Three rams and 3 ewes were imported from Ostfriesland, Germany (Joandet, 1994). In 1962 the National Institute for Agricultural Technology imported 3 rams and 19 ewes to be used in crossbreeding programmes. Between 1971 and 1978, 12 more rams and 21 ewes were imported, with 3 additional importations following after 1985; in 1991, 7 rams and seven ewes were imported (W.G. Kugler, 1994, personal communication).

In 1990 the National Institute for Agricultural Research of Uruguay imported 4 rams and 25 East Friesian ewes from Argentina. In the same year, Estacia la Mariana farm imported 4 rams and 45 ewes from the same source. Eight more rams were imported later. East Friesian have since been exported from Uruguay to Chile and Brazil (W.G. Kugler, 1994, personal communication).

Finnsheep

Canada was the first North American country to import Finnsheep. The University of Manitoba arranged the first importation in 1966. The source of Finnsheep in Canada were 4 rams and 8 ewes born in 1966 to animals previously imported by Scotland. Progeny of these animals were shipped to the Canada Department of Agriculture (Animal Research Centre, Ottawa, Ontario, and Lethbridge Research Station, Lethbridge, Alberta) and to Laval University, Quebec. The sheep were used primarily for research purposes; many were sold to sheep breeders. The Canada Department of Agriculture (Animal Research Centre, Ottawa) imported a second group through a private company for use in the development of the Arcott breeds.

The United States Department of Agriculture (Meat Animal Research Center, Clay Center, Nebraska) introduced Finnsheep into the United States in 1968. Four rams were imported from Ireland in 1968, followed by 7 additional rams in 1969. Also in 1969 2 rams were imported from the University of Manitoba and three rams and 11 ewes from Finnsheep Limited, Alberta (Young and Dickerson, 1991). Finnsheep rams were used to upgrade various pure breeds to 15/16 Finnsheep ancestry, a proportion

considered to be pure Finnsheep for registration purposes. Currently about a dozen farms in Canada raise pure Finnsheep, with a total of about 1000 registered sheep.

In 1985, Finnsheep were introduced into Mexico from the United States. The Faculty of Veterinary Medicine of Universidad Nacional Autónoma de México (Mexico City) imported a few ewe and ram lambs. No experimental results were reported, leading to the conclusion that little research was conducted on them. It seems that at least a few of the sheep were moved to another university location (Chalco), since there is evidence of some preliminary crosses using Pelibuey ewes and Finnsheep rams (Márquez and Guevara, 1993).

Chile and Peru introduced into South America Finnsheep from the United States. Austral University in Chile imported 2 Finnsheep rams to use for developing two prolific lines, Austral and Hidango, the former for crossing with Romney and the latter for crossing with Mutton Merino.

Polypay

In 1980 a private breeder in Quebec first imported Polypay to Canada from the United States. He bought 3 rams and 6 ewes. In 1981 he imported another 2 rams and 18 ewe lambs, and in 1982, 2 more rams and 10 ewe lambs. These importations were followed by many others in various Canadian provinces.



Polypay.

The main Polypay flock in Mexico is located in Ayotlán, Jal. In 1990 a private producer brought 400 head of sheep (both males and females) from California (R. Giraud, 1993, personal communication). Since then, some breeding rams have been sold to other breeders to use for crossbreeding with native Criollo and Pelibuey sheep.

Romanov

In 1981 Canada imported Romanov to North America from France (Fahmy, 1993). The original shipment consisted of 7 rams and 17 ewes born between 1976 and 1978. Four rams and 6 ewes came from the French government experimental flock at Bourge. Three French Romanov breeders sent the remaining animals. Four of the rams came from litters of three and one from a litter of two. Nine of the ewes came from litters of three, four from litters of two, and one from a single lambing. Only 5 rams and 14 ewes passed the Canadian maximum security quarantine at Grosse Iles, Quebec. The animals were kept in a minimum security quarantine at the Agriculture Canada Research Station, Lennoxville, Quebec. A few Romanov rams, progeny of the original importation, were transferred to the Lethbridge Research Station in 1982 for use in research on crossbreeding with range sheep. Another shipment of 10 pregnant Romanov females followed in 1985. A parallel flock was subsequently established in western Canada. The 5-year quarantine ended in 1986, and the animals were released to the Canadian sheep industry soon afterward. From the two nucleus flocks in Quebec and Alberta, Romanov sheep spread throughout the 10 Canadian provinces and 28 American States (Fahmy, 1993).

Romanov were introduced into the United States in 1986 from a flock maintained in Quebec. A sample of 16 pregnant ewes and 4 rams were transferred to the Meat Animal Research Center, Clay Center, Nebraska. The animals were used for research, and their progeny were later released to American sheep breeders. Canadian and American sheep breeders later arranged importations.

In March 1994, a private Iowa producer, located in Apam, Hgo, Mexico, imported 5 Romanov ewe lambs and 5 ram lambs (J. Lara-Pastor, 1994, personal communication).

A Canadian exporting company based in Ontario introduced Romanov sheep into Cuba and Venezuela.

St Croix (Virgin Island White Sheep)

St Croix were first introduced into the United States (State of Maine) in the 1960s and were used to develop the Katahdin breed. The first importation consisted of fewer than 10 animals, which were used for crossbreeding; a pure strain has not been maintained. In 1975 the International Sheep and Goat Institute, Utah, imported 22 ewes and 2

rams from the island of St Croix. Small experimental and commercial flocks were established in Florida, Mississippi, New York, Ohio, Utah and California.

In 1992 a small flock of St Croix sheep, consisting of 6 ewes and 1 ram, was imported by Ontario, Canada, from New York State.

In 1967 a private producer introduced approximately 25 ewes and 7 rams of this breed into Mexico. The sheep came from Utah and are being raised in Monterrey (J. Lara-Pastor, 1994, personal communication). A few ram lambs were sold to producers in other areas of Mexico to use for crossbreeding with Pelibuey.

Vendeenne

Brazil is the only country to import Vendeenne sheep. Two rams were imported privately from France in 1990. The Caribbean island of Martinique also imported 4 rams in 1983 (C. Merieau, 1994, personal communication).

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