

INTRODUCTION

In Wales, goats are mainly kept: to produce milk, meat or fibres (mohair and cashmere); for showing; or as pets and companion animals. There are no reliable data on goat numbers in Wales although holdings are more common in the south of the country. In the UK as a whole there are approximately 88,000-93,000 goats including 30,000 breeding female goats (does) being used for milk production. This leaflet focuses on keeping goats for meat production.

BREEDS

On a global scale, it has been traditional for goats to be kept as dual purpose animals, providing both milk and meat. However, in Wales, it is more common for goats to be kept for milk production, and breeding strategies have focused on improving the traits of importance for dairying rather than for producing meat. The resulting dairy breeds are rather analogous to dairy cow breeds in terms of conformation and are not favoured by the meat market.

➤ Boer

This is the only breed of goat which has been specifically developed to produce meat and this is the breed of choice if goat meat production is the sole objective. Boer goats have a shorter back, shorter legs and an altogether more “stocky” appearance than traditional dairy breeds (see Fig. 1). They are also more placid and easier to manage and handle than many other breeds. With an increase in interest in goat meat, it is becoming more common to use a boer billy as a terminal sire with dairy does to produce off-spring of more value in the meat market.

➤ Anglo-Nubian

Although mainly kept for dairy production, Anglo-Nubians produce animals with a fairly good carcass conformation and pleasant meat.

➤ Angora

Angora goats are usually kept for fibre production, but they are also capable of producing good quality meat on animals with a fair conformation and might be considered for dual purpose ventures (fibre and meat).



Figure 1: Boer male

GOAT MEAT

Goat meat (also known as chevon) is often marketed as a “healthy” meat as it is very lean and particularly low in saturated fats and cholesterol. As with sheep and cattle, the age of the animal at slaughter affects the eating qualities of its meat. It is usual for goat meat to be hung and certain markets also require that male goats are not castrated. The nutritional values, eating qualities and flavour of cooked meat will obviously be very dependent on the method in which it is prepared.

BREEDING and REPRODUCTION

The gestation period of a goat is 150 days and natural oestrus begins in early autumn with the shortening day length and will continue on a three weekly cycle until the spring. Twin kids are quite common. Although it is possible for a doe to kid three times in two years, it is more usual to aim for annual kidding. The economically productive life expectancy of does is approximately eight years. Male goats are sexually precocious, becoming sexually active from around 16 weeks old. Unless a male is to be kept for breeding, it is usual to castrate him within the first week of life, this has been shown to lead to a slight decrease in growth rates, but the advantages of castration outweigh this. Although research shows that artificial insemination is an economically viable option in goat meat production (with better conception rates than in sheep) natural matings are by far the most common. Many producers run their male with the females, but a more controlled system is required if kids production is to be timed to meet the cyclical nature of market demands.

FEEDING SYSTEMS

Adult does are fed on a standard diet of hay and grazing with concentrate supplements provided according to their production levels. Feeding systems for the kids in goat meat production divide into: milk based diets and forage / concentrate based diets. Boer or boer crossbred kids will weigh approximately 3kg to 5kg at birth and a rough average growth rate over the first six months is 250g / day.

Table 1: Guide to slaughter weight and killing out percentages

Age at slaughter	Appx liveweight at slaughter	Average killing out %
3 – 5 weeks	8kg – 12kg	50+
12 – 16 weeks	10kg – 20kg	47 – 52
6 – 12 months	40kg	45

Milk based system: this system is used to produce young, tender kids. The kids are allowed *ad libitum* access to milk either from their dams or from an artificial system. Kids are usually given access to hay, but this does not form a significant part of their energy intake. Slaughter takes place at or before six weeks of age.

Forage / concentrate system: From approximately two weeks of age, kids will naturally try to eat solids. Goats are ruminants and their digestive systems are adapted to suit diets with a high quantity of roughage. Research indicates that it is not usually cost effective to feed goats on a high concentrate diet and a diet comprising mainly forage is recommended. However, some producers successfully rear kids using high protein lamb pellets. Any diet needs to be carefully assessed in terms of its ability to meet the animals' needs and its cost effectiveness. Professional advice should always be sought in ration formulation.

HOUSING

Goats can either be reared in a semi-intensive indoor system or in an outdoor system similar to traditional sheep systems with stocking rates of approximately 12 does plus kids per hectare. If kept outdoors, the goats must have free access to a shelter at all times. In either system, the housing needs to provide a dry and draft free environment and the animals must have continuous access to fresh drinking water. Boer goats and boer crossbreds are more suited to grazing than pure dairy breeds. Compared to sheep, they prefer a sward with a high proportion of broadleaved herbs. Boers and their crosses are also less boisterous and less inclined to climb boundaries than dairy goats, therefore, they are more suited to an outdoor system.

HEALTH

Health problems suffered by goats are, in general, very similar to those suffered by sheep. Professional advice should always be sought regarding the health of goat herds. Particular areas of concern for goats include: worms (helminths); bacterial diseases, particularly pulpy kidney disease – caused by clostridial bacteria; tetanus; foot rot and overgrown hooves.

MARKETS

As with any other business venture, before embarking on a goat meat production enterprise it is imperative that thorough market research is undertaken to determine the demand for the end product. Although the market in Wales is not well developed, there are some opportunities to sell goat meat to restaurants, to specialist ethnic stores and to the public. Demand for goat meat increases at Easter, Christmas and Ramadan. Retail prices for pre-packed cuts of meat vary widely depending on time of year, location and quality. Indicative values range from £8 / kg for shoulder (bone-in) to £20 / kg for boned and rolled loin.

SLAUGHTER and PROCESSING

The method of slaughter for goats is the same as for sheep, and any abattoir or butcher licensed to slaughter sheep may also slaughter goats. However, with goats it is more common for the producer to pay the abattoir to slaughter (and butcher if required) the animal and for the producers to market their own produce. Indicative prices are £10 / head for slaughter plus £5 / carcass if butchering into main cuts is required.

LEGISLATION

Legislation covering the identification and tracing of goats came into force in February 2003: any goat born after 01/01/2002 must be marked with a flock / herd mark; since 01/02/2003 each individual goat must have a unique number, in addition to the flock / herd mark.

It is a legal requirement to report the death of any goat of more than 18 months of age by telephoning 0800 525890.