

# Dairy Goats

## Introduction

Goats have been domesticated for thousands of years. They are adaptable animals, easily managed and have the ability to survive under harsh conditions. Goat production has always been popular on the continent and in France goat milk production is an integral part of agriculture and enjoys the same government support as other farm enterprises. Spain and Greece also have large populations of goats but production systems are more traditional than either in France or the UK. Accurate data on the total number of goats or goat farmers in Ireland are not available. However it was estimated that there were 6,000 holdings with goats in the early 1990's with approximately 17,000 goats. However many of these are small goat herds of 2 to 5 goats producing milk for private consumption and not for sale. Teagasc estimates from their 1992 Integrated Rural Development Database that there were approximately 250 farmers milking goats with approximately 30 producers involved in goat cheese and yoghurt production. Goats qualify for EU headage payments at the rate of £10 per female goat up to a maximum of 200 breeding goats per farm.

## Marketing

Goats can be used to produce milk, fibre or meat but milk is by far the most important. Products include fresh milk, cheese, yoghurt and ice cream. Demand for milk is expanding due mainly for health reasons despite the fact that there is virtually no scientifically proven evidence to explain why goat's milk should be particularly beneficial to certain groups of people.

The constituents of goat's milk are broadly similar to cows milk. However fat and protein type and structure are quite different and this could explain why individuals allergic to cows milk have no such allergies with goat's milk. Goat's milk has a higher proportion of small fat globules than cows milk and this makes fat separation more difficult when making butter or cream. In addition goats milk does not contain carotenoid pigments and therefore the cream is always white in colour. Goat's milk freezes successfully unlike cow's milk, which tends to separate on thawing. This is a useful property, as it means producers can freeze milk during the summer when it is plentiful to overcome winter shortages. Cheese and yoghurt manufacturers often use frozen goat milk. Goat's milk has a tendency to develop an unpleasant taint and this is a disadvantage when it comes to marketing the product. However cooling quickly after milking and pasteurising limits this taint. Producers should identify the outlet to be supplied before commencing, as there are no organised markets.

Demand for goat's milk peaks in the winter months, which means that the goat's breeding cycle has to be regulated. It is important to supply on an all year round basis.

## Production

Breeds of goat most suited to Irish conditions are the Saanen type, British Alpine, Toggenburg and Anglo-Nubian breeds. The first three breeds have broadly similar milk yields. The Anglo-Nubian has a lower milk yield but has a higher fat content. Milking ability of a particular strain within a breed is more important than the particular breed. Stock should be purchased from a reputable source. Goats are natural browsers with a preference for herbs and shrubs. However, good quality grass and hay should be fed and a typical diet for a milking goat would be 1 kg of concentrates (in two feeds) for every 2.5 litres of milk produced per day plus good quality hay ad lib.



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*This is one of a series of fact sheets on income generating activities.*

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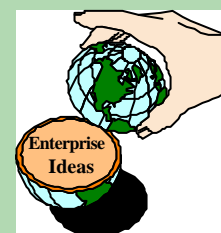
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However in many of the intensive goat farms in the UK and the continent goats are continually housed with zero grazing. Kids retained are usually artificially reared, as it would not be economical to feed them on goat's milk. Milk yield varies enormously but commercial producers should aim for between 650 and 900 litres per goat per lactation with a peak yield of 4 litres per day. One person can milk 150-180 goats in a parlour. Average stocking rate is 10 goats (including kids) per hectare.

### Establishment Costs and Profit Margins

Goats need more protection from the weather than cows or sheep and must have access to shelter at all times. Dairy goats should be housed at night during the winter and have field shelter during the summer. Milking of small herds can be done by hand but for larger herds a milking machine is required. Milk must be cooled immediately after milking. The cost of establishing a 50 goat unit is shown in Table 1.

**Table 1: Capital Cost of a 50 Goat Unit**

	£
Milking Goats at £100 each	5,000
Male Goat	150
Milking Parlour Equipment	5,000
Cooling Equipment	800
Fencing	1,200
Conversion of existing farm building	5,000
<b>Total</b>	<b>17,150</b>

In addition to the above a new pasteurising plant and a cartoning machine could cost an additional £15,000. The output, direct costs and gross margins from dairy goat production are shown in Table 2 for three levels of performance.

**Table 2: Output, Costs & Gross Margins from Dairy Goat Production**

Performance	2.0 Litres/Day Moderate	3.0 Litres/Day Good	4.0 Litres/Day Very Good
Yield/annum (litres)	455	680	910
Milk @ 0.33p/litre	150	224	300
Kid (average male/female)	17	25	30
Replacement Cost (£)	-25	-25	-30
<b>Gross Output/Goat £</b>	<b>142</b>	<b>224</b>	<b>300</b>
<b>Variable Costs :</b>	£	£	£
Milk Replacer	7	7	8
Concentrate Meal	27	45	81
Forage	20	25	25
Miscellaneous, vet, etc.	20	22	24
<b>Total Variable Costs</b>	<b>74</b>	<b>99</b>	<b>138</b>
<b>Gross Margin/Goat</b>	<b>68</b>	<b>125</b>	<b>162</b>
<b>Stocking Rate : Goats/Hectare</b>	<b>6.25</b>	<b>7.5</b>	<b>7.5</b>
<b>Gross Margin/Hectare</b>	<b>425</b>	<b>937</b>	<b>1,215</b>

The data in Table 2 show that margins for the more efficient producers are almost 3 times greater than those achieving low yields. The above price of £0.33p per litre is based on selling directly to a processor/wholesaler without cartoning or marketing. Higher prices could be obtained by selling directly to retail outlets but this entails higher packaging and processing costs and also the producer must guarantee continuity of supply. Producers need to identify the market to be supplied before commencing, as there are no organised markets.