The Sheep Industry – its recent evolution

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Introduction

Prime lamb production is an important sector within the Irish agricultural industry. Ireland is the fourth largest sheep meat exporter worldwide and is the largest net exporter of sheep meat in the EU. Currently Ireland is 335% self-sufficient in sheep meat. The value of sheep meat output is approximately €250 million and the value of sheep meat exports is €230 million. Prime lamb production occurs on 34,254 farms dispersed across all counties. Information from the Teagasc National Farm Survey (NFS) shows that 70% of sheep farmers do not have an off-farm source of income. The aim of this article is to provide information on the structure of the prime lamb production industry and its evolution during the past 25 years.

National flock

Currently there are 2.5 million ewes in the national flock which is the same number as in 1985. The size of the national ewe flock declined dramatically since its peak (4.8 million) in 1992, reaching a minimum of 2.35 million in 2010 (Figure 1). The national flock size has remained relatively stable since. The number of flocks has also declined over the last 25 years, with approximately 15,000 fewer farms with a sheep enterprise in 2015 as compared to 1993. Currently, there are 34,254 flocks in Ireland, with an average of 73 breeding ewes. Approximately 67% of Irish flocks have less than 100 ewes.

Irish sheep numbers are concentrated in counties along the western seaboard and in the uplands along the east coast. Donegal is the county with the most sheep followed by Galway, Mayo and Kerry. Limerick is the county with fewest sheep.

Breed profile

The most recent survey of the breed composition of the national flock was completed in 2006 and the results are presented in Table 1. Suffolk-X ewes accounted for half of the population. The Suffolk and Texel breeds (the two main terminal sire breeds) currently account for 61% of the sires of the national ewe population. In the early 1990's Suffolk-X and Texel-X ewes accounted for 46% of the national ewe flock, therefore these breeds are increasing in popularity. However in the survey completed in 2006 it was interesting to note that the proportion of ewe lamb replacements derived from Suffolk had declined to 51% whilst the proportion represented by Belclare-X was 10%.

The Scottish Blackface and Cheviot are the predominant breeds on the hills of the western seaboard and east coast respectively.

Based on the figures collated in the 2006 survey and presented in Table 1 it is estimated that 86%, 9% and 5% of national lamb carcass output was derived from lowland, Cheviot and Scottish Blackface flocks, respectively.

Sheep meat exports

The vast majority of Irish indigenous production is exported, with the domestic market accounting for less than 7% of indigenous production, and Ireland is the largest net exporter (exports less imports) of sheep meat in the EU. France and the UK are our principal markets for sheep meat and account for 36 and 26% of sheep meat exports, respectively; Sweden, Belgium and Germany each account for 8%. Only 5% of Irish sheep meat exports go to non-EU markets.

Whilst most Irish sheep meat was exported in carcass form in the late 1980s only 25% of sheep meat exports are currently exported in this form; most exports are now in the form of fresh or chilled cuts, either deboned or bone in.

Sheep price

The price of sheep output is presented in Figure 2. These data are indexed with 1990 as the base year. Relative to 1990, the sheep output price index was lower each year during the 1990's and did not increase above the 1990 level until 2001. The sheep output index in 2015 was 35% higher than in 1990. However, the growth in nominal price does not necessarily reflect an improvement in profitability. To assess how the real returns to sheep production have evolved account must be taken of how the price of inputs to production of sheep have evolved. The real sheep price index presented in Figure 2 takes account of developments in the costs of agricultural production and shows that the real price of sheep output by the sector has not improved since 1992, with the increases in sheep price matched by increases in the input price farmers have paid over the last 25 years. To improve profitability in the face of stable real prices requires improvements in productivity.

Productivity at farm level

The main objective of most producers who have a sheep enterprise is to produce lamb meat for the market. The two main factors influencing the quantity of lamb carcass produced per hectare is stocking rate and the number of lambs weaned per ewe joined. Measures of productivity at farm level for the period 1993 to 1995 and 2013 to 2015 from Teagasc NFS are presented in Table 2. Productivity performance over the 20 year period analysed has declined at farm level. This decline in performance is reflected in a reduction in the average stocking rate of 12 % (one ewe/ha), whilst there has been no improvement in the number of lambs weaned per ewe joined. The lack of an improvement in the number of lambs reared per ewe joined may be indicative of the increase in ewe numbers from terminal sire breeds that have an inherently low prolificacy.

Whilst the mean gross margin on all lowland sheep farms over the past 3 years was €590/ha, the gross margin earned across the population of lowland lamb enterprises varies dramatically. The gross margin for the top third and bottom third of sheep producers (when ranked on the basis of gross margin per hectare) was €971 and €232/ha, respectively. This large difference in profitability was mainly due to large differences in lamb carcass output. Relative to the bottom third of sheep producers, the top third of sheep producers weaned an extra 4.9 lambs/ha due to a combination of

higher stocking rate (+2.4 ewes/ha) and the greater number of lambs weaned per ewe joined (+0.22 lambs). The very large degree of variation in income levels among sheep producers clearly demonstrates that there are opportunities within the farm gate, and thus under the control of the producer, to increase profitability. Individual farmers have little or no control of what happens outside the farm gate except to negotiate the best price for animals sent for slaughter.

Efficiency within the farm gate

Producers have full control of factors that are within the farm gate and can use these to significantly alter their own destiny. For example, whilst the mean number of lambs reared per ewe joined in lowland flocks is 1.3, the top 5% of producers achieve 1.7 lambs weaned per ewe joined. The key factors that affect production efficiency, and thus profitability, are ewe genotype, grassland management, silage feed value and thus nutrition during pregnancy, season of shearing, nutrition during pregnancy and management prior to joining. These and other issues relevant to efficient prime lamb production will be examined/discussed in a series of articles over the coming months.

Conclusions

1) Ireland is the largest net exporter of lamb in the EU
2) The population of ewes has declined by 50 % since 1992
3) France and the UK are the main markets for Irish sheep meat
4) Suffolk-X ewes account for 61 % of the national flock
5) Productivity at farm level, as measured by lamb carcass output per hectare, has declined by 13% in the past 20 years
6) There are many opportunities, within the farm gate, to improve productivity and profitability and these will be addressed in future articles.

Figure 1. Number of ewes in the national flock between 1990 and 2015.

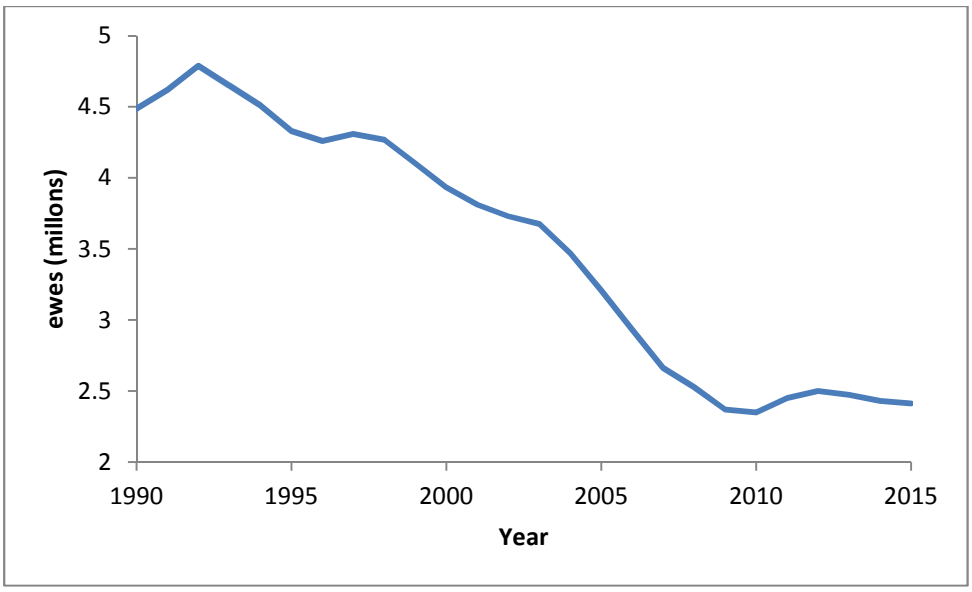

Figure 2. Evolution of the nominal price index for sheep and the corresponding Real price index for sheep output over the past 25 years.

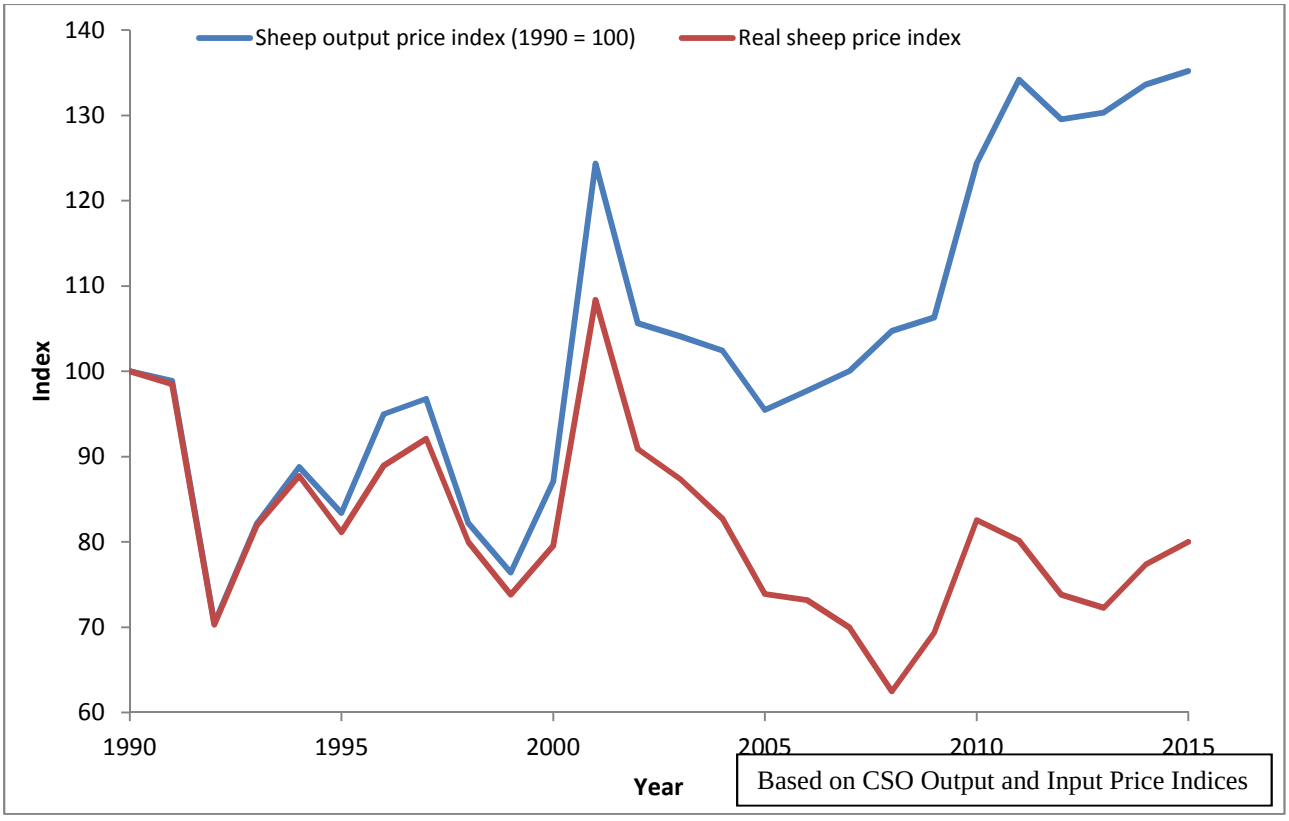

Table 1. Estimated breed profile of the national flock

Breed type	% of ewes in national flock
Suffolk-X	51
Texel –X	10
Charollais-X	4
Leicester-X	2
Belclare-X	3
SBF	14
Cheviot	11
other-X	5

(Source: Hanrahan 2008)

Table 2 Changes in flock productivity in the past 20 years

	Period	
	1993 to 1995	2013 to 2015
Stocking rate (ewes/ha)	8.5	7.5
Lambs reared per ewe joined	1.3	1.3

(Sources: Hanrahan 1998; National Farm Survey)