

Changing Markets and the Development of Sheep Breeds in Southern England

1750–1900

By A K COPUS

Abstract

The development of sheep breeds in Southern England between 1750 and 1900 was a response by ordinary farmers to changes in the relative price levels of cereals, mutton, wool and tallow. Between c. 1750 and 1790 the high price of tallow led to the 'improvement' of the old horned breeds, to produce a carcass in which tallow production was maximized. After 1790 tallow prices fell and the introduction of Southdown rams enabled farmers in the Downlands to modify their flocks in response to the demand for good quality wool and effective folding. After 1815, when quality mutton and lamb prices were relatively high, the breeds were perfected as meat producers. Similar changes took place in mixed-farming districts. After 1870, falling prices and dwindling profits resulted in limited changes in breeds, except on higher downland farms, where upland sheep from Northern England and Wales were introduced.

OUR understanding of the origins and development of the major English sheep breeds has advanced considerably in recent years. A great deal of documentary evidence has been sifted and interpreted, and the implications of genetics have been carefully considered.¹ The reader may be forgiven for wondering whether there remains very much scope for research. One aspect, however, that of the relationship between the market and breed changes, is still largely unexplored. Clearly a more precise understanding of the changing requirements of the wool merchant, butcher and consumer, would shed light on how and why sheep breeds developed. The discussion which follows introduces a set of agricultural produce price series, covering the period from 1700 to 1900, to show that the sheep farmers of central southern England were, in fact, very responsive to market influences. It

will be convenient to divide the one hundred and fifty years into three periods, the first beginning in 1750 and ending in 1815, the second ending in 1875 and the third comprising the final twenty-five years of the nineteenth century.

During the eighteenth and nineteenth centuries sheep performed three main functions: they provided wool; they fertilized the arable land with their dung when folded; and finally they were sold for meat and tallow. The relative importance of each of these roles depended first upon the nature of the local physical environment and farming system, and secondly upon the relative price levels of wool, mutton, and cereals, (and therefore, indirectly, folding). A change in price of any of these three commodities would result in a modified role for sheep, and would create a favourable environment for changes in breed.

¹ See, for example, Robert Trow Smith, *A History of British Livestock Husbandry to 1700*, 1957; *A History of British Livestock Husbandry 1700–1900*, 1959; M L Ryder, *The History of Sheep Breeds in Britain*, *Ag Hist Rev* 12, 1964, pp 1,65; G G S Bowie, *New Sheep for Old*, *Ag Hist Rev* 35 1987, p 15; Nicholas Russell, *Like engend'ring Like*, 1986; M L Ryder, *Sheep and Man*, 1983. In addition to these authors who specialize in the subject of sheep breeds, a number of others refer to the subject in the course of more general descriptions of farming, these will be referred to where appropriate below.

I

Figure 1 shows the percentage change in price from decade to decade for the two major divisions of farming in Southern England, cereals and livestock, from 1700

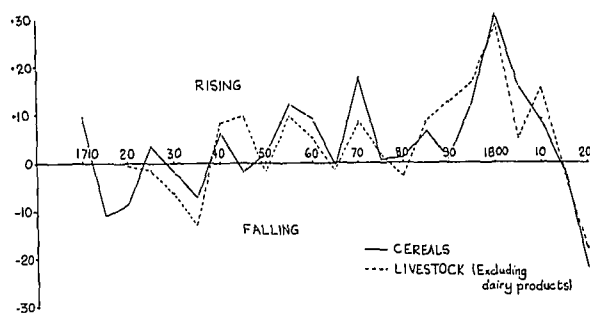


FIGURE 1
Percentage Change in Price for Cereals and Livestock Products 1700-1820.

Sources: See Figure 2.

to 1815.² A swing towards livestock during the 1730s and 1740s is clearly revealed. From c.1750 to c.1780, market prices tended to favour cereals slightly more than livestock. Thereafter, apart from an interval during the late 1790s and early 1800s the prices of meat, wool and tallow were consistently rising more rapidly than those of corn.

If we are fully to appreciate the market environment within which the farmer worked we must, however, go beyond the aggregate arable/livestock level and examine the course of prices for individual products. Figure 2 presents the price trends for six products, expressed as index numbers to facilitate easy comparison. Of the cereals, wheat and barley were consistently above the average for all products, whilst oat prices were rather lower. The mutton price index in the mid-eighteenth century, was a little higher than that of wheat, but subsequently fell back, only achieving parity again at the close of the century. Wool prices were very low from 1760 to 1790. This was probably the result of

² The graph was calculated from the price series shown in Fig 2. The cereal index is an average of wheat, barley (malt), and oat prices, (themselves expressed as indexes with the period 1720-44 as a base, and converted to decennial averages at five-year intervals). The livestock index is similarly calculated from price series for mutton, beef, wool and tallow. The sources of these price series are given in Fig 2. A more detailed discussion of all the price series may be found in A K Copus, 'Changing Markets and the Response of Agriculture in South-West England 1750-1900, unpublished PhD thesis, UCW, Aberystwyth, 1987, Appendix 1.

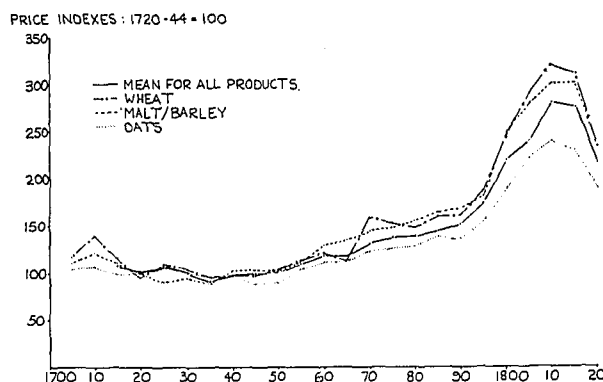


FIGURE 2A
Cereal Prices 1700-1820.

Sources: Wheat; 1700-89, Navy Victualling Series, William Beveridge, *Prices and Wages in England from the Twelfth Century to the Nineteenth Century*, 1939, pp 566-69; 1790-1820, Gazette Price Series, B R Mitchell and P Deane, *Abstract of British Historical Statistics*, Cambridge, 1963, p 488. Barley/Malt; 1700-89, Navy Victualling Series, Beveridge, 1939, *op cit*, pp 566-69, 1790-1820, Gazette Price Series, Mitchell and Deane, 1963, *op cit*, p 488. Oats; 1700-89, Winchester School Series, Beveridge, 1939, *op cit*, pp 702-5, 1790-1820, Gazette Price Series, Mitchell and Deane, 1963, *op cit*, p 488.

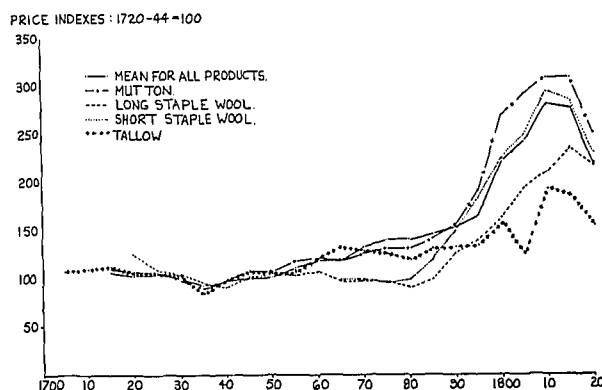


FIGURE 2B
Mutton, Wool, and Tallow Prices, 1700-1820.

Sources: Mutton; 1710-99, Greenwich Hospital Flesh Series, Beveridge, 1939, *op cit*, pp 293-5, 721-3; 1800-20 *Gentleman's Magazine* Series, Copus, 1987, *op cit*, p 586. Long Staple Wool; 1715-59, Lincoln, Mitchell and Deane, 1963, *op cit*, p 495; 1760-1820, Kent Long, Mitchell and Deane, 1963, *op cit*, p 495. Short Staple Wool; 1760-1820, Southdown, Mitchell and Deane, 1963, *op cit*, p 495. Tallow; 1700-99, Naval Stores London, Beveridge, 1939, *op cit*, p 672-80, 739-41; 1800-20, *Gentleman's Magazine*, Copus, 1987, *op cit*, p 586.

import competition. The disruption of international trade during the Napoleonic wars resulted in a rapid rise in price between 1790 and 1815.

Perhaps the most significant of all the price trends shown on the graph is that of tallow, (fat used as a raw material for

candles and soap). Prior to about 1755 the tallow and mutton indexes fluctuate more or less in parallel, then for about fifteen years the tallow index begins to rise above that of mutton. After 1770 this trend is reversed as the rapid expansion of imports (seemingly unaffected by wartime trade disruptions), forced tallow prices down to a very low level. Tallow and mutton prices, being expressed in the same units, are directly comparable in their raw form. Figure 3 reveals that, in absolute terms, tallow was more valuable, per pound, right through until c.1795, and after this date, its price fell steadily below that of mutton.

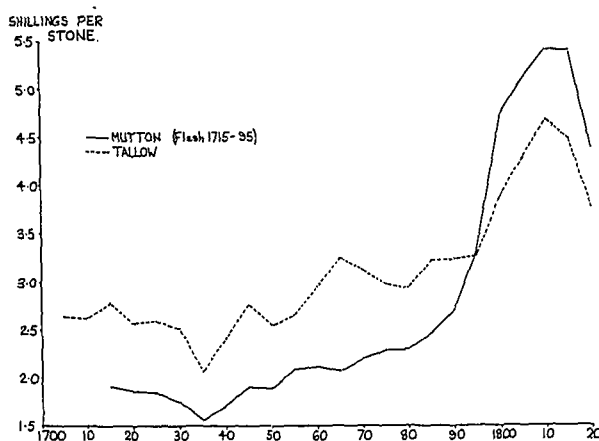


FIGURE 3
Mutton and Tallow Prices 1710-1820 (Decennial Means).

Sources: See Figure 2B.

We must now turn to the response of sheep farmers to these price trends. During the eighteenth century low prices and the inability of local fleeces to compete with high quality imported merino, meant that wool production had already become an influence of lesser importance on the sheep breeder of the south of England.³ The relationship between cereal and mutton prices was rather ambiguous prior to 1815, and, unlikely as it may seem, it was the course of tallow prices which proved the

most significant determinant of breeding policy during this period.

Modern efforts to adapt sheep breeds in response to changing demands and prices began much earlier than is commonly supposed. Nicholas Russell has recently suggested that market conditions were favourable from 1500 onwards. This, he suggests, resulted in 'a considerable drive for an increase in size', beginning about 1680. This was made possible by improvements in fodder supply. It was achieved in one of three ways: the selection of larger individuals from within local flocks; by the introduction of complete flocks of larger breeds from other districts; or by the 'grading up' of local flocks using a large ram from elsewhere. After reviewing the evidence of changes in various breeds, Russell concludes that the second and third options were the most commonly adopted by sheep breeders of this period.⁴ One notable exception was of course, Bakewell's 'improvement' of the 'New Leicester', or 'Dishley'. Bakewell's activities took place outside the region with which we are primarily concerned, and yet a brief examination of his work is helpful since it sheds light upon the nature, and motives for, the less well documented developments in southern England.

Bakewell directed his efforts exclusively to the improvement of the Leicester's carcass. Its suitability for folding, the quality of its fleece, and (to begin with at least) its fecundity, were neglected or ignored. The result was an animal which was extremely well adapted to the current, (but unfortunately transient) market requirements. Although the Dishley breed was exceptional in its ability to reach maturity and to gain weight at an early age, its meat was very fatty, and being palatable only to the urban poor, fetched a low price.⁵

⁴ Russell, *op cit*, pp 57, 156-7, 169, 218.

⁵ Trow Smith, 1959, *op cit*, pp 173; Ryder, 1964, *op cit*, p 7; Russell 1986, *op cit*, p 200; J D Chambers and G E Mingay, *The Agricultural Revolution 1750-1880*, 1966, p 67.

³ For a more detailed discussion of this point see Copus, 1987, *op cit*, pp 232, 256-7.

Furthermore, much of the fat, instead of being well mixed with the muscle, was concentrated on the exterior of the carcass, immediately under the skin.⁶ The butcher was able to separate it, and to sell it as tallow. This prompted one contemporary to describe the breed as 'beasts of tallow'.⁷

During this period the price offered by a butcher was related only to the meat content of a carcass, and any tallow, hides and bone 'represented sources of profit for which he gave the grazier little financial return'.⁸ Tallow prices were, during Bakewell's working life, c.1750-76, higher than those of mutton, and it would seem reasonable to suppose that butchers would favour any breed which produced large quantities of 'loose fat'.⁹ At the very least, the tallow-producing ability of the New Leicester would compensate for the poor quality of its mutton.

However, tallow, like wool, is a product well suited to extensive types of farming system, and it is easy and cheap to transport. It was therefore one of the first to suffer import competition. Towards the end of the century the arrival of large-scale imports from eastern Europe depressed tallow prices.¹⁰ By 1800 the price had fallen below that of mutton and thereafter the gap widened rapidly. The attention of sheep farmers was now directed away from maximizing external fat, towards the production of leaner, more flavoursome mut-

ton. Sir John Sinclair, commenting on this new trend wrote in 1802:

Tallow formerly bore a higher price than meat, and consequently was a greater object in the breeding of cattle and sheep than at present, when it sells at an inferior price.¹¹

II

The sheep-corn system, in its pure form, was practised on the chalk hills of Sussex, Hampshire, Wiltshire, Dorset and Berkshire. Surrounding this core area were a number of transitional districts where farming systems possessed elements of both downland farming and the mixed farming of the adjacent vales.

In the core areas the farming system was firmly based upon a breeding regime, and until the latter part of the nineteenth century, very little fattening was carried out. The downland farmer was, as yet, unable to take up fattening as a response to rising mutton and tallow prices. Local pedological and climatic conditions rendered the provision of sufficient fodder of appropriate quality uneconomical given current fat-stock price levels. Besides, any attempt to provide fattening fare would have been incompatible with the other objective of the sheep-corn farmer of that time, maximizing cereal output. In addition, many of their downland farms were relatively inaccessible, with poor communications with major urban markets. The only response which sheep-corn farmers could make to the increased demands for mutton and tallow was to try to produce more appropriate store stock. The way forward did not, however, lie with the New Leicester, which lacked the necessary hardiness, requiring sheltered fields and a plentiful supply of grass. The only solution was to improve the native breeds.

The Wiltshire Horn breed of the early part of the eighteenth century has been

⁶ A H John, 'The Course of Agricultural Change 1660-1760', in L S Pressnell (ed), *Studies in the Industrial Revolution*, 1960, p 154. 'with tallow prices relatively more expensive than meat for much of this period, early maturing Leicesters with ten inches of solid fat on their ribs were not without their attraction for the financially shrewd!' See also J A Clarke, 'Practical Agriculture', *JRASE*, XIV, 1878, p 554.

⁷ Anon, 'The State of Agriculture in England', *Farmer's Magazine*, XV, 1814, p 414.

⁸ Russell, *op cit*, p 199.

⁹ See Fig 3; Sir John Sinclair, 'Hints Regarding Cattle', *Farmer's Magazine*, III, 1802, pp 149-50.

¹⁰ According to Arthur Young, 'tallow on average is cheaper than mutton, and no wonder, while we import such an imensity of tallow, but we cannot import, thanks to difficulty, fat mutton'. 'Experiment on the Introduction of South Down Sheep into Suffolk', *Annals of Agriculture*, XV, 1791, p 289. See also J R Peet, *Influences of the British Market on Agriculture, and Related Economic Development in Europe*, *Trans Inst Br Geog*, LVI, 1972, p 1.

¹¹ Sinclair, 1802, *op cit*, p 49.

described by several modern writers.¹² Said to be the largest short-woolled breed in existence at the time, it was hardy, thrifty, well suited to folding, possessed a good quality fleece, and made moderately good mutton.¹³

Soon after 1750 some important changes took place in this breed. Davies wrote in 1794:

The first and great object at this time is the improvement of the carcass, both of the ewe and lamb, and particularly the latter: and the attention is directed much more to the quality of the lambs they breed than the quantity.¹⁴

These improvements seem to have taken the form of an increase in size:

Till within these few years, the sheep were certainly smaller than they are now. The alterations that have taken place have been principally by breeding them longer in the legs, higher and heavier in the fore-quarters . . .¹⁵

Such changes were probably achieved 'by purchasing large rams', (almost certainly of one of the midland long-wool breeds) and grading up the local ewes.¹⁶ It is of course possible that as Davies suggested, the Wiltshire farmers were motivated by vanity, competitiveness amongst breeders to produce the largest lambs.¹⁷ However, these changes do not seem to have been the work of a few 'gentlemen farmers'. The new strain appears to have been readily adopted by the majority of farmers, even those with modest holdings, to whom profits were a more important concern than the admiration of their peers. It seems more likely that the 'improvement' of the Wiltshire Horn was a response to current demands for large, fatty joints of mutton,

and for tallow. Certainly the chronology of the changes is consistent with this explanation.

In the long run, however, the 'pride or vanity of possessing large handsome animals'¹⁸ led to the decline in popularity of the Wiltshire Horn. The downland farmers began to discover that the new strain possessed a number of serious shortcomings. They were less hardy, and as a result did not crop the downland pasture as closely, causing the sward to degenerate, and eventually resulting in a reduction in its carrying capacity.¹⁹ They were also very prone to 'goggles' an hereditary disease with symptoms similar to those of rickets.²⁰ They were also very slow to fatten.²¹ Finally as tallow prices fell, and the demand for small lean joints of mutton increased, the 'improved' Wiltshire Horn became less and less popular with the butchers. Writing in 1845, David Low remarked that the Wiltshire Horn

affords an exemplification of almost every external character which the breeder wishes to avoid. The large coarse head, the flat sides, and the length and thickness of the limbs are very remarkable.²²

Although the evidence is rather less plentiful, it is clear that the modification of local breeds was not peculiar to Wiltshire at this time. A similar transformation took place in the sheep of Hampshire. The Hampshire Horn was closely related to the Wiltshire. David Low describes them as follows: 'They were horned, had the faces and legs white, though in some cases speckled, long limbs, and lank bodies'.²³

¹² See note 1.

¹³ W C Spooner, 'On Cross Breeding', *JRASE*, XX, 1839, p 299; William Youatt, *Sheep: Their Breeds, Management and Diseases*, 1837, pp 244-5; John Luccock, *An Essay on Wool*, 1809, pp 272-4; David Low, *Domesticated Animals of the British Isles*, 1845, pp 120, 121; Thomas Davis, 'On Wiltshire Sheep', *Annals of Agriculture*, XXII, 1794 (a), p 97.

¹⁴ Davis, 1794 (a), *op cit*, p 100.

¹⁵ *Ibid*, p 103.

¹⁶ Thomas Davis, 'Remarks on the Wiltshire and Southdown Sheep', *Annals of Agriculture*, XXXVII, 1801, p 378.

¹⁷ This view is implied in both papers by Davis referred to above.

¹⁸ Thomas Davis, *General View of the Agriculture of Wiltshire*, 1794 (b), pp 102, 104.

¹⁹ Davis, 1794 (a), *op cit*, pp 98, 100-1; Davis 1801, *op cit*, p 378.

²⁰ Davies, 1794 (a), *op cit*, p 103; Davies, 1801, *op cit*, p 378; Arthur Young, 'A Farming Tour of the South and West of England', *Annals of Agriculture*, XXXI, 1797-8, p 85.

²¹ Davies, 1801, *op cit*, p 382; Youatt, 1837, *op cit*, pp 244-5; Low, 1845, *op cit*, pp 120-1.

²² Low, 1845, *op cit*, p 120. It was the assumption that mutton producing sheep were synonymous with the large fatty Dishley type which led Davis to conclude that good performance in the fold and the breeding of lambs for mutton would never be successfully combined. Davis, 1794 (b), *op cit*, pp 27-8, 104-5.

²³ Low, 1845, *op cit*, p 122.

There is some evidence to suggest that attempts to modify the carcass of this breed began even earlier here.²⁴ Further north Mavor reported of the Berkshire Nott:

The pure race is not so commonly met with as any would be apt to imagine. By crosses it has undergone several changes . . . The breed, within a very few years, has been greatly improved, when fat they vary as much in weight as from fourteen to forty pounds a quarter.²⁵

Similar changes were taking place in the Dorset Horn Breed.²⁶

Thus the sheep-corn farmers of southern England were responding to the relatively high price of tallow and mutton by modifying their own local breeds thirty or forty years before the better documented, and well known changes during the Napoleonic period. By the time this second phase began, the market was requiring a rather different kind of sheep.

These new requirements were fulfilled by the Southdown (or perhaps more accurately the Southdown Cross). A number of modern writers have given accounts of the diffusion of this breed through the sheep-corn districts during the 1780s and 1790s. The most recent, that of G G S Bowie, raises several important questions, concerning, first, the motives for the change in breed and the benefits brought by it, and secondly, the precise method by which the rapid change was accomplished.

Although he mentions the social status of owning a flock of Southdowns, and the benefits of heavier stocking, it appears from his introduction that Bowie, like Eric Jones, sees the change as primarily a response to the rising demand for high

quality mutton.²⁷ By way of contrast, M C Naish has written:

Developments in the breeding of sheep between 1791 and 1840 were important in the move towards almost exclusively arable husbandry, for the tendency was to produce sheep which were exceptionally well adapted to life in the fold.²⁸

These two, seemingly contradictory, views may best be reconciled by recognizing the distinction between the factors which led to the initial change of breed, and those which enabled the Southdown to maintain and consolidate its position.

The initial adoption of the Southdown was influenced by four major characteristics of the breed. The first was the superiority of its fleece. The wool of the old horned breeds had recently become rather coarse, partly as a result of improvements in feed, and partly due to the early attempts to increase the size of the carcass by crossing.²⁹ In the long term, short staple wool prices were tending downwards, so that even during the Napoleonic wars, when there was a temporary rise, the production of low quality wool was not an economical proposition. This meant that any breed with wool fine enough to compete with Spanish imports was bound to be popular. The Southdown fleece was considerably lighter than that of the old horned breeds, but its superior quality meant that it was generally more valuable.³⁰ Second was the almost complete immunity of the Sussex breed to the diseases which had for several decades been endemic among the horned breeds.³¹ Thirdly, the Southdown was an

²⁴ William Marshall, *The Rural Economy of the Southern Counties*, 1798, Vol II, pp 345-6; Luccock, *op cit*, pp 266-7.

²⁵ William Mavor, *General View of the Agriculture of Berkshire*, 1809, p 381; Youatt, 1837, *op cit*, p 241; William Pearce, *General View of the Agriculture of Berkshire*, 1794, p 44, 'a spirit of crossing is diffusing itself'.

²⁶ Contrast, for example the description given by Young in 1771, *The Farmer's Tour Through the East of England*, 1771, III, p 331, with that of Stevenson in 1812, and *General View of the Agriculture of Dorset*, 1812, p 393.

²⁷ Bowie, 1987, *op cit*, pp 17, 15; E L Jones, 'Eighteenth Century changes in Hampshire Chalkland Farming', *Ag Hist Rev*, VIII, 1960, p 16.

²⁸ M C Naish, *The Agricultural Landscape of the Hampshire Chalklands, 1700-1840*, Unpub, MA Thesis, London University, 1960, p 241.

²⁹ Russell, *op cit*, p 174; see also note 30 below.

³⁰ Stevenson, 1812, *op cit*, pp 414-5; Arthur Young, 'A Tour of Sussex', *Annals of Agriculture*, II, 1789, p 199; Arthur Young, *General View of the Agriculture of Sussex*, 1808, pp 349-52, 355-72; Anon, 'Notes on Sheep', *Annals of Agriculture*, XXXIX, p 640; Davis, 1794 (a), *op cit*, p 104; Davis, 1794 (b), *op cit*, pp 23-4; Davis, *General View of the Agriculture of Wiltshire*, 1813, p 142.

³¹ Young, 1789, *op cit*, p 210; Implied by Davis, 1801, *op cit*, pp 378-9, 51.

excellent arable sheep, an important consideration at a time when cereal prices were rising, and many farmers had expanded their arable acreage at the expense of their downland. It was hardy, prepared to search for scanty downland fare, but at the same time docile in the fold, not inclined to damage fences and hurdles.³² Its small size meant that it was 'thrifty', an advantage where food was scarce. The adoption of the Southdown was in fact, one means of restoring pastures which had become overgrown under the improved Wiltshire and Hampshire Horns.³³ The breed was also well adapted to the new form of folding, which amounted to controlled grazing of arable fodder crops, and did not involve open downland. Indeed Jones has argued that the popularity of the breed greatly facilitated the adoption of swedes.³⁴ Finally, as Bowie rightly points out, the introduction of the Southdown generally resulted in increased stocking density: but doubling the carrying capacity was an extravagant claim; the increase was generally in the region of twenty-five to thirty per cent.³⁵ Any such increase would of course, result in more effective folding, increased supplies of manure, and the corresponding benefits to the arable division of the farming system. After about 1800, however, downland farmers were increasingly aware that the market environment favoured the production of stores rather than corn. As a result, the virtues of the Southdown as a mutton sheep, which had previously been overshadowed by the merits of its fleece and its aptitude for folding,

came to the fore.³⁶ The new breed possessed advantages both in the quality of its meat, and the quantity it was able to produce.

The Southdown was the first of a new type of mutton sheep, ideally suited to satisfy the increasing demand for high quality meat. Despite the diminutive size of the carcass, the mutton was lean and full of flavour; 'well suited to the table of the epicure . . .'³⁷ Generally speaking the hindquarters were heavier than the fore, which meant that there was more flesh on the expensive cuts of meat.³⁸

The Southdown enabled the downland farmer to expand his output of mutton in two ways: at the simplest level it allowed an increase in the output of lambs due to higher stocking levels; and further potential arose from the Southdowns ability to come to maturity at an earlier age than the older breeds. On the North Downs, for instance, it was recorded that Wiltshire and Southdown wethers were bought in at Michaelmas, the former at nine months, the latter at six months. The Wiltshires had to be folded two summers, and fattened the following winter, at the age of three-and-a-half years. In contrast, the Southdowns were folded one summer only, and fattened at the age of two.³⁹ In the light of this it is curious that Bowie suggests that the Southdown's 'slow growth' was one of the main objections to the new breed, leading farmers to repeatedly cross it with

³² Young, 1789, *op cit*, pp 199-200; Young, 1791, *op cit*, p 289; Young, 1808, *op cit*, pp 298-300; Davies, 1794 (a), *op cit*, p 105; Davis, 1794 (b), *op cit*, p 24; Stevenson, 1812, *op cit*, p 308; Charles Vancouver, *General View of the Agriculture Hampshire*, 1810, p 366; Marshall, 1798, *op cit*, Vol II, p 378.

³³ Young, 1797-8, *op cit*, XXXI, p 84.

³⁴ Jones, 1960, *op cit*, p 17.

³⁵ Davis, 1794 (a), *op cit*, p 105; Davis, 1794 (b), *op cit*, p 24; Davis, 1801, *op cit*, p 378; Vancouver, 1810, *op cit*, p 374; Young, 1808, *op cit*, pp 298, 302, 372-5; Young, 1789, *op cit*, p 203; Young, 1791, *op cit*, p 298; Young, 1797-8, *op cit*, XXVIII, p 364; Luccock, 1809, *op cit*, p 273-4.

³⁶ According to Joseph Darby; 'owing to the early improvement of the Southdown, that breed alone was adapted to meet the requirements of the farmer over the entire region of the South of England, when turnip culture and the use of artificial manures first came into fashion. The native breeds, although good wool-bearers, were bad flesh producers, and the fine good quality sussex sheep drove them forth everywhere'. The breeds of sheep and their adaptation to different districts in the South and West of England, *Journal of the Bath and West of England Society*, III, 1871, p 66.

³⁷ Robert Smith, 'The Management of Sheep', *JRASE*, VIII, 1847, p 7. See also; Young, 1808, *op cit*, p 331; Young, 1791, *op cit*, p 292-3; Young, 1797-8, *op cit*, Vol XXXI, p 85; William Youatt, *The Complete Grazier*, 1851, p 231; Davies, 1794 (a), *op cit*, pp 104-5; William Belcher, 'On South Down Husbandry', *Annals of Agriculture*, II, 1785, p 134.

³⁸ Trow Smith, 1959, *op cit*, p 126; Young, 1808, *op cit*, p 296.

³⁹ Marshall, 1798, *op cit*, II, p 412-3.

the old horned breeds.⁴⁰ It seems that here he may be confusing the actual mode of diffusion of the breed with attempts to improve it.

Bowie himself notes that owning a flock of pure Southdowns in the early years of the nineteenth century 'implied a certain social status.'⁴¹ Simple replacement of a horned ewe flock with pure Southdowns was an extravagance beyond the reach of the majority of smaller downland farmers. There is some evidence to suggest that the problem was exacerbated by the inability of Sussex flockmasters to satisfy the demand for Southdowns.⁴² As a result the usual method of introducing the new breed was to purchase a Southdown ram, and to use it to upgrade and alter the existing horned ewes. From the resulting lambs, the most Southdown-like ewes were selected as replacements for the drafted horned ewes. If a Sussex ram was used for a series of years the flock would gradually lose the characteristics of the original breed, and become increasingly like the male parent. Thus Luccock wrote of Hampshire in 1809:

In those instances where they have been coupled with the Sussex breed, and which seems to be the mode of improvement most commonly adopted, the progeny resembles more exactly that of the South Downs.⁴³

Many of the so-called 'Southdown' flocks of Wiltshire, Hampshire, Berkshire and Dorset were in fact, crosses of this sort.⁴⁴

In the transitional districts, sheep and corn were still the major sources of income, but in contrast to their downland brethren, farmers here frequently fattened both sheep and cattle, some of which they bought in, rather than breeding them locally. Furthermore, much less reliance was placed upon permanent grass, and arable crops were a major source of fodder

PRICE INDEXES: 1720-44 = 100

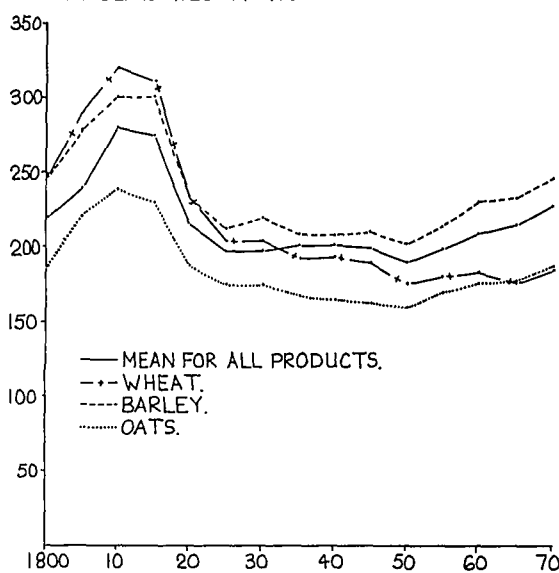


FIGURE 4A
Cereal Prices 1800-70.

Sources: *Wheat*, Gazette Prices, Mitchell and Deane, 1963 *op cit*, p 488; *Barley*, *Ibid*; *Oats*, *Ibid*.

PRICE INDEXES: 1720-44 = 100

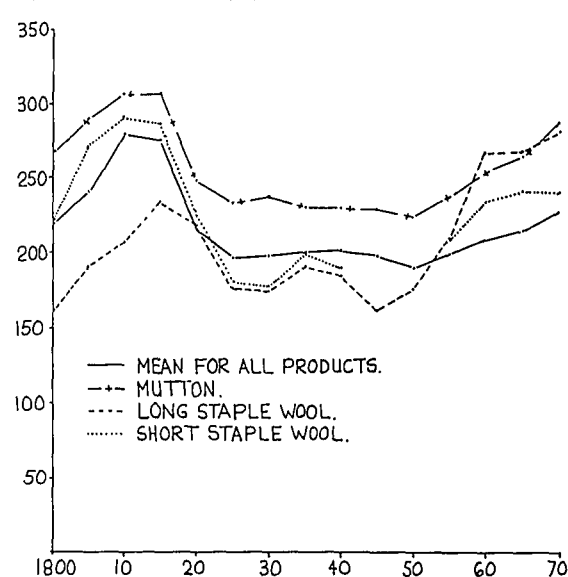


FIGURE 4B
Mutton and Wool Prices 1800-70.

Sources: *Mutton*, 1800-54, *Gentleman's Magazine*, Copus, 1987, *op cit*, p 586; 1855-1870, Saurbeck Series, Copus, 1987, *op cit*, p 588; *Long Staple Wool*, Lincoln Half Hog, Mitchell and Deane, 1963, *op cit*, p 495; *Short Staple Wool*, 1820-42, Southdown, Mitchell and Deane, 1963, *op cit*, p 495; 1852-1870, Southdown, *Economist Series*, Copus, 1987, *op cit*, p 589.

⁴⁰ Bowie, *op cit*, p 17.

⁴¹ *Ibid*, p 17.

⁴² Marshall, 1798, *op cit*, II, p 292.

⁴³ Luccock, *op cit*, pp 266-7.

⁴⁴ W C Spooner, 'On Cross Breeding', *JRASE* XX, 1859, p 294; Low, 1845, *op cit*, p 122; Youatt, 1837, *op cit*, p 237-8, 245.

for the flock and herd. Farming of this type was to be found on the North Downs, in parts of Berkshire, on the stonebrash hills of Oxfordshire, and the Cotswolds.

Even by the turn of the eighteenth century farmers in these areas were already beginning to reject the old idea that the profit of a sheep came primarily from the fertility it added to the arable, and instead were concentrating on fattening ewes and lambs. That they were able to do this was partly a reflection of the physical suitability of the land to fairly rich permanent grass and fodder crops, and partly due to superior access to markets. Since folding tended to slow down the process of fattening,⁴⁵ many farmers chose to discontinue it. It was now very much minority practice in the Cotswolds, and was becoming less common in Oxfordshire.⁴⁶ As far as breeds were concerned, the Southdown had made some progress in ousting the local breeds in Oxfordshire and Surrey.⁴⁷ Elsewhere in the transitional zone many farmers were experimenting with crossing, often using a New Leicester ram. This gave earlier maturity, and a heavy carcass, but lack of hardiness usually restricted such crosses to richer, more sheltered farmland.⁴⁸

One of the most successful crosses resulted in the Improved Cotswold.⁴⁹ The Cotswold was unique among downland breeds in being a long-wool. It is sometimes assumed that its introduction was of ancient date; indeed it has been suggested that it was brought over by the Romans.⁵⁰ David Low disagrees, suggesting that it was introduced as late as the eighteenth

century, from Warwickshire or north Oxfordshire.⁵¹ In a refinement of this theory, Russell has recently suggested that the old short-woolled breed of the area was upgraded during the eighteenth century by the introduction of large midland long-wool rams.⁵² If this is correct, then the second phase of crossing, using New Leicester rams, during the early nineteenth century, was simply the continuation of a long established practice.

III

After 1815 there was a rapid fall in the prices of most farm products. In the late 1820s prices levelled out, and subsequently livestock produce, particularly mutton and beef, occupied a more favourable position than cereals. The market reports from Weyhill, the largest of the autumnal sheep fairs, show that prices of all types of down store sheep followed closely those of mutton (Fig 5). Wool prices fluctuated considerably, but apart from a low point in the twenties, were similar in their overall trend. On the arable side, wheat experienced a continuous decline, the fall being most rapid during the immediate post-Napoleonic period. Barley prices shared in the initial collapse, but then levelled out, and even showed some disposition to rise from the 1830s to the 1860s. Oat prices followed a very similar course.

Farmers generally responded to these price trends in two ways: The first response was known as 'High Farming'. This involved intensification: the increased use of labour, manure and artificial fertilizers; larger acreages of fodder crops; field drainage; careful cultivation, and so on. The advantage was that until the point of diminishing returns was reached, each additional unit of output was produced at lower unit cost, and therefore, in theory at least, still profitable despite stagnating

⁴⁵ Arthur Young, *General View of the Agriculture of Oxfordshire*, 1813, p 298.

⁴⁶ William Marshall, *The Rural Economy of Gloucestershire*, 1796, II, p 80; Youatt, 1851, *op cit*, p 243.

⁴⁷ Young, 1813, *op cit*, p 298; Marshall, 1798, *op cit*, II, pp 412-3; William Stevenson, *General View of the Agriculture of Surrey*, 1809, pp 526-30; Youatt, 1837, *op cit*, p 240.

⁴⁸ See for example, Young, 1813, *op cit*, pp 301-313.

⁴⁹ Trow Smith, 1957, *op cit*, p 181; Trow Smith, 1959, *op cit*, pp 67, 147-8; Russell, 1986, *op cit*, p 170; Young, 1813, *op cit*, p 314; Marshall, 1796, *op cit*, Vol II, p 79.

⁵⁰ Trow Smith, 1957, *op cit*, pp 38, 165-6; Youatt, 1851, *op cit*, p 203.

⁵¹ Low, 1845, *op cit*, p 186.

⁵² Russell, 1986, *op cit*, p 170.

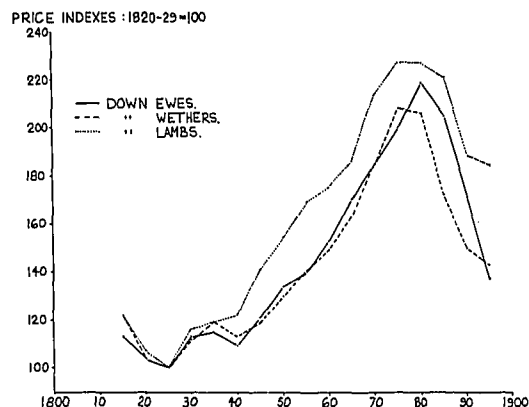


FIGURE 5

The price of Sheep at Weyhill Fair (Decennial Means).

Source; *The Hampshire Chronicle*.

prices. The second response was an increasing reliance upon livestock rather than arable crops as a source of income.

There were, in fact continued efforts to improve the Southdown as a pure breed, so that, by the middle of the century it was, in many respects a different animal from its ancestors of one hundred years before.⁵³ The changes (for which John Ellman was largely responsible) were all made with two major ends in view. The first was the perfection of the carcass. Wilson summarized the improvements in this area as follows:

The size and weight have been increased: the fore quarters improved in width and depth: the back and loins have become broader, and the ribs more curved, so as to form a straight and level back: the hind quarters are square and full, the tail well set on and the limbs shorter and finer in the bone.⁵⁴

The quality of Southdown mutton and lamb remained high, although some sacrifices had to be made in the quality of

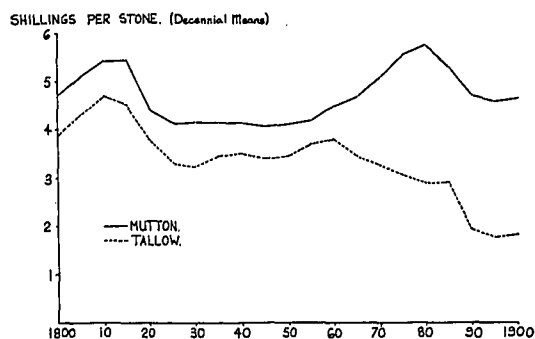


FIGURE 6

Mutton and Tallow Prices 1800-1900.

Sources; Mutton, see Figure 4B, Tallow; 1800-54, *Gentleman's Magazine Series*, Copus, 1987, *op cit*, p 586; 1855-1904, *Saurbeck Series*, Copus, 1987, *op cit*, p 588.

the wool. Even so the Southdown fleece remained one of the finest in Britain.⁵⁵

Secondly, the combined effects of careful breeding and better fodder had resulted in considerable advances towards early maturity. In the late eighteenth century it had taken between three and five years to fatten a wether; by 1840 this had been reduced to two years.⁵⁶ Ten years later it was becoming increasingly common for lambs (weighing about 80lb) to be ready for the butcher at the age of twelve to fifteen months. If kept until they were two years old, they would attain weights of 100-120 lb.⁵⁷

Molland, Naish, and more recently, Bowie, all agree that the Hampshire Down was a cross between the Southdown and the old Horned breed, and that it was especially adapted to the production of mutton and lamb within a predominantly arable system. This is broadly true, but additional evidence now makes it possible to fill in some significant details in the history of the breed.

The Hampshire, Wiltshire and West

⁵³ W C Spooner, 'On Breeds of Sheep', *Farm Mag*, X, 1844, p 31. '... there is no ancient pure breed of sheep that has undergone so much improvement as the Southdown: and it affords the owners of other breeds a proper example, showing what can be done by care and attention, and the application of proper principles'.

⁵⁴ John Wilson, 'The Various Breeds of Sheep in Great Britain', *JRASE*, XVI, 1856, pp 233-4.

⁵⁵ Wilson, 1856, *op cit*, p 234; J B Lawes, 'Report of experiments on the Comparative Fattening Qualities of Different Breeds of Sheep', *JRASE*, XII, 1851, p 415; Spooner, 1844, *op cit*, p 31; Youatt, 1851, *op cit*, p 231; John Donaldson, 'On Breeds of Sheep for Different Localities', *Farm Mag*, III, 1853, pp 302-3.

⁵⁶ Henry Evershed, 'The Early Fattening of Cattle and Sheep', *JRASE*, I, 1890, p 53; See also Low, 1845, *op cit*, p 163.

⁵⁷ Wilson, 1856, *op cit*, p 234; See also Clarke, 1878, *op cit*, p 561.

Country Down breeds were a natural consequence of the mode in which the Southdown had been introduced. As described earlier, most farmers used a Southdown ram on their horned ewes, selecting from the ewe lambs those which most resembled the Southdown for use as replacements for their oldest horned ewes. Many farmers however stopped short of complete transformation, retaining the most useful characteristics of the old breed in their cross-breed flocks.

During the first three or four decades of the century the flockmasters of Hampshire and Wiltshire seem to have developed the new cross independently, and along slightly different lines. In Hampshire the crossing was continued until the lambs produced looked rather like a larger, heavier version of the Southdown, retaining the characteristic Roman noses and large heads of the old horned breed.⁵⁸

Such an animal was ideally suited to the requirements of the Hampshire farmer, who was engaged in the production of mutton and lamb, using fodder crops, rather than grass. These characteristics were therefore fixed, partly by replacing the Southdown ram with one of the cross-bred sheep, and partly by taking out of the flock any lambs which showed a tendency to revert to either of the original breeds. It may be that a certain amount of Cotswold and Shropshire blood was introduced at this time.⁵⁹

In Wiltshire it seems that a larger number of farmers were able to change their breed by replacement rather than crossing. Those who did adapt their horned ewes carried on the crossing process much longer, so that almost all the characteristics of the female parents, including the large head and Roman nose, disappeared.⁶⁰ This breed

came to be known as the West Country Down.

This smaller-framed sheep was better adapted to the needs of the farmers of Wiltshire, where a larger proportion of the open downland had survived the Napoleonic Wars. As the century progressed, however, there was an increasing tendency to depend upon arable fodder crops. The Wiltshire farmers then began to appreciate the advantages of a slightly larger lamb, and they therefore began to use Hampshire Down rams. Spooner describes the result:

They have increased the size of the frame without materially enlarging the heads, and thus a very valuable breed of sheep has been formed, the Wiltshire Down, whose more perfect symmetry frequently enables their owners to wrest the prizes from the Hampshire men, and to cause the latter, by rivalry thus induced to improve their sheep by careful selection.⁶¹

Thus the Hampshire Down's head was reduced in size, and the breeds of Hampshire and Wiltshire became almost indistinguishable. Only the experienced eye could detect that the former was still marginally coarser and heavier boned.⁶² Soon both breeds, despite their distinct origins, came to be known as 'Improved Hampshire Downs'.⁶³

In the eastern half of Dorset the Hampshire Down breed was at first considered 'a sour objectionable breed',⁶⁴ and many farmers preferred to keep pure Southdowns. Later on, when the Hampshire breed had been improved, and at the same time the Dorset flockmasters were becoming more dependent on arable fodder crops, a Hampshire Down-South-

⁵⁸ Spooner, 1859, *op cit*, p 300.

⁵⁹ *Ibid*, p 302; Elias P Squarey, 'A Short Account of the Hampshire or West Country Down Sheep', *Jnl Bath and West*, 1, 1869, p 48; Darby, 1871, *op cit*, p 76.

⁶⁰ Spooner, 1859, *op cit*, pp 299, 304.

⁶¹ Spooner, 1859, *op cit*, p 304.

⁶² For other descriptions of the breed see; Youatt, 1837, *op cit*, pp 241-2; Squarey, 1869, *op cit*, pp 48-9; Darby, 1871, *op cit*, pp 73-6; Clarke, 1878, *op cit*, pp 562-3.

⁶³ Spooner defines the difference as follows; 'The Wiltshire Down breeders began with the Sussex ewe, and crossed with the Hampshire ram, whilst the Hampshire breeders used the original horned ewe and the Sussex ram'. Spooner, 1859, *op cit*, p 304.

⁶⁴ Darby, 1871, *op cit*, p 77.

down cross began to gain popularity.⁶⁵ A trace of long-woolled Bampton from Devon was introduced during the same period, in order to secure a slightly larger carcass.⁶⁶ A few breeders, notably Saunders of Watercombe, were particularly well known for the quality and purity of their flock.⁶⁷ The thinner soils, and the more exposed fields meant that the Dorset version of the Hampshire Down was always characterized by a finer carcass:

Dorset has always sought to realise a higher quality, a more refined variety, than either Wiltshire or Hampshire. This has been obtained by a nearer approximation to the Southdown.⁶⁸

Indeed the difference was so noticeable that the Dorset type eventually came to be widely regarded as a distinct breed, the Dorset Down.⁶⁹ The western part of Dorset was really a transitional sheep-corn or dairying district, and the Dorset Horn retained its dominance there.⁷⁰ The use of a Southdown ram resulted in lambs which would fatten more rapidly, and give more valuable meat.⁷¹ Unfortunately the breeds did not assimilate well, and the producers of early lamb had to be content with a first cross.⁷² Some increase in the weight of wool and mutton could also be achieved by crossing the Dorset Horn with the similar, but larger, Somerset.⁷³

On the Cotswolds many farmers continued their efforts to improve their native breed of sheep. In 1849, Rowlandson observed that:

Crosses of the Cotswolds with the Leicester have answered exceedingly well in some places, and many of the carefully bred Cotswolds are scarcely to be excelled by any breed in England: for wet coarse pasture no large sheep is so well adapted as the Cotswold.⁷⁴

Indeed the improved Cotswolds were more hardy, more prolific, and better mothers than the Dishley breed.⁷⁵ Their meat and wool were, however, of poor quality. Lawes described the breed as 'a poor man's sheep',⁷⁶ whilst Coleman remarked that 'the quality of the flesh is so inferior as to limit the chief demand for such mutton to our manufacturing districts.'⁷⁷ This disadvantage was, however, offset by the considerable advances which had been made towards early maturity. Bravender explained that:

On the hills the improvement in the management of the flocks is plainly proved by the weight and age at which they are brought to market compared with what they were at the time of Rudge (1807). He says that when three years old they would weigh from twenty-two to thirty pounds per quarter: now they are brought to that weight in fifteen months only.⁷⁸

A little further east, on the stonebrash hills of Oxfordshire, a new cross breed, the Oxford Down, was developed during the 1830s and 1840s. A number of breeders had begun to experiment with a cross between the Hampshire Down and the Improved Cotswold, hoping to combine the good points of both.⁷⁹ The results were

⁶⁵ *Ibid.*, pp 77-8; Chapman Saunders, *Sheep and their Management*, *Jnl Bath and West*, VI, 1874, p 179; Clarke 1878, *op cit.*, p 566; L H Ruegg, 'Farming in Dorset', *JRASE*, XV, 1854, p 430; James Caird, *English Agriculture*, 1852, p 62; Spooner, 1859, *op cit.*, pp 306-7; Trow Smith, 1959, *op cit.*, p 279.

⁶⁶ Spooner, 1859, *op cit.*, p 306.

⁶⁷ Joseph Darby, 'The Farming of Dorset', *Jnl Bath and West*, IV, 1872, pp 9-11; Joseph Darby, 'Characteristics of Quality and Construction of Live Stock', *Jnl Bath and West*, VIII, 1876, p 97.

⁶⁸ Darby, 1876, *op cit.*, p 96-7.

⁶⁹ *Ibid.*, p 97.

⁷⁰ Ruegg, 1854, *op cit.*, p 430; Clarke, 1878, *op cit.*, p 566; Darby, 1871, *op cit.*, p 78.

⁷¹ Darby, 1871, *op cit.*, p 80; Youatt, 1837, *op cit.*, p 242; Low, 1832, *op cit.*, p 122.

⁷² Spooner, 1859, *op cit.*, p 306.

⁷³ Saunders, 1874, *op cit.*, p 179.

⁷⁴ T Rowlandson, 'On the Breeds of Sheep Best Adapted to Different Localities', *JRASE*, X, 1849, p 347; See also; Low, 1832, *op cit.*, p 186; 'Agricola', *The Sheep - its Importance, Varieties, Management and Diseases*, *Farm Mag*, III, 1853, p 441; Youatt, 1851, *op cit.*, p 203; Youatt, 1837, *op cit.*, p 256; Trow Smith, 1959, *op cit.*, pp 270-1; Anon, 'Agriculture in Berkshire', *Farm Mag*, III, 1841, p 303.

⁷⁵ 'Agricola', 1853, *op cit.*, p 441; Rowlandson, 1849, *op cit.*, p 436; John Bravender, 'Farming in Gloucestershire', *JRASE*, XV, 1850, p 173; C S Read, 'Farming in Oxfordshire', *JRASE*, XV, 1854, p 227; J B Lawes, 'Report of Experiments on the Comparative Fattening Qualities of Different Breeds of Sheep', Part II, Cotswolds, *JRASE*, VIII, 1853, pp 180, 182, 188ff.

⁷⁶ Lawes, 1853, *op cit.*, p 193.

⁷⁷ John Coleman, 'The Management of Sheep Stock on Heavy and Light Land', *JRASE*, I, 1865, p 240.

⁷⁸ Bravender, 1850, *op cit.*, p 173.

⁷⁹ Darby, 1878, 'Oxfordshire Agriculture and Stock Farming', *Jnl Bath and West*, X, 1878, pp 148-50; Spooner, 1859, *op cit.*, pp 308-9; Clarke, 1878, *op cit.*, p 564; H Rider Haggard, *Rural England*, 1903, II, pp 97, 101, 103.

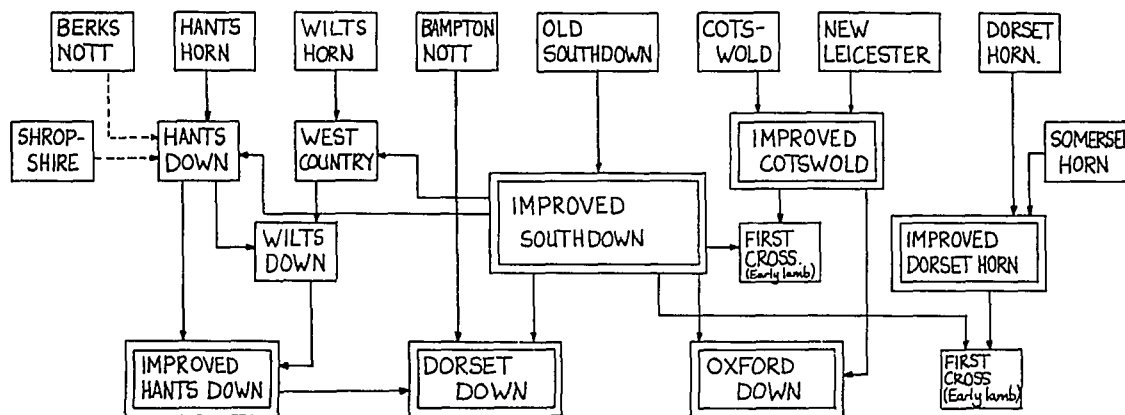


FIGURE 7

Probable Lines of Evolution of the Major Downland Sheep Breeds.

encouraging, and soon the breed was fixed. Bowie mentions the role of the best known of the breeders involved, but implies that the cross was simply a Hampshire Down variant.⁸⁰ Contemporaries recognized it as a distinct breed, referring to it at first as the 'Down Cotswold', or 'New Oxford'. In 1857 it was renamed the Oxford Down, and five years later it was allocated a separate class at the International Show at Battersea.⁸¹

The new breed retained the large size of the Gloucestershire sheep, without sacrificing the hardiness, early maturity, and quality of meat and fleece of the Hampshire Down. It was thus said to fulfil Sir John Sinclair's hopes of combining in one animal 'the fleece of the Spaniard, the carcass of the Bakewell, and the constitution of the Southdown'.⁸² It was hardier in the fold, and would fatten more quickly on less food than the Cotswold.

The new breed were generally folded on fodder crops throughout the year, whilst Cotswolds were usually grazed on leys

during the summer months.⁸³ The Oxford Down was therefore popular in predominantly arable districts. However, in areas where a significant proportion of the land was still permanent grass, the Cotswold or Hampshire Down was preferred. C S Read explained:

Where there are extensive downs, and sheep are valued for their manure more than for their mutton, and can be kept at small cost till they are a year old or more, there Downs are best; but for consuming crops on arable land in hurdles, and for producing a great and rapid supply or best meat and wool . . . the half breed stand unrivalled.⁸⁴

In parts of Berkshire, many farmers kept a flock of Hampshire Down ewes, and using a Cotswold or Leicester ram, produced cross-breed lambs. In order to maintain the first cross, new stock had to be bought in from Hampshire and Wiltshire. Some farmers fattened both lambs and ewes each year, and purchased a new flock of ewes every autumn.⁸⁵

⁸⁰ Bowie, 1987, *op cit*, p 17.

⁸¹ Oxford Journal, Meeting of the Breeders of Down Cotswold Sheep, *Farm Mag*, XII, 1857, p 324; Anon, 'A New Breed of Sheep - The Oxfordshire Downs', *Farm Mag*, XII, 1857, p 345.

⁸² Darby, 1871, *op cit*, p 85. Ryder recognizes the relationship in his diagram of the origin of sheep breeds 1969, *op cit*, p 9.

⁸³ J Twynam, Correspondence, *Farm Mag*, VI, 1837, p 101; J Twynam, Correspondence, *Farm Mag* I, 1840, p 10; Darby, 1871, *op cit*, p 86; Darby, 1878, *op cit*, pp 130, 148-50; Clarke, 1878, *op cit*, pp 564-5; Rowlandson, 1849, *op cit*, p 436; Coleman, 1865, *op cit*, p 240; Robert Smith, 'The Management of Sheep', *JRASE*, VIII, 1847, p 16; Spooner, 1859, *op cit*, pp 308-9; Read, 1854, *op cit*, p 228.

⁸⁴ Read, 1854, *op cit*, p 228; See also; J B Spearing, 'Farming in Berkshire', *JRASE*, XXI, 1860, pp 37-9.

⁸⁵ Spearing, 1860, *op cit*, p 39; Samuel Druce, 'On the Comparative Profit Realised from Different Breeds of Sheep', *JRASE*, XIV, 1853, p 211-3.

It is clear that the sixty years between 1815 and 1875 represent a crucial period in the development of the sheep breeds of Southern England. Several new cross breeds originated at this time under the stimulus of a favourable market environment. It is possible that this was due to small farmers being unable, for financial reasons, to replace their flock with a new breed. Upgrading the local breed was a cost-effective alternative. Youatt explained the multiplication of new breeds in terms of sheep's sensitivity to relatively minor differences in fodder type and physical environment. The only alternative was to adapt indigenous types to suit the changed economic environment.⁸⁶ As a result, each district was characterized by its own district improved or cross-bred type. At the same time, however it is important to appreciate the central role played by single breed, the Southdown. Youatt pointed out that there was no major breed in the southern counties which did not 'owe almost everything that is good about them to the influence of this valuable breed'.⁸⁷ Similar views were expressed by Clarke.⁸⁸ In this sense, the Southdown's role in the development of English agriculture was at least as important as that of the Dishley breed.

IV

The main features of the market environment during the final twenty-five years of the nineteenth century have been thoroughly analysed by a number of modern authors.⁸⁹ The period begins with the last few seasons of 'high farming', which merge into the period known as 'The Great

PRICE INDEXES: 1850-59 = 100

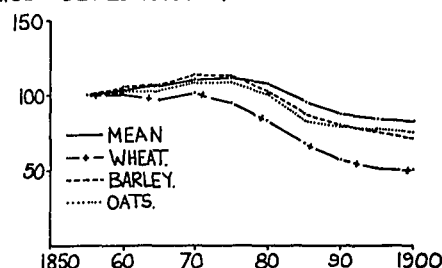


FIGURE 8A
Cereal Prices 1850-1900

Sources; *Wheat*; Gazette Prices, Mitchell and Deane, 1963, *op cit*, p 488; *Barley*, *Ibid*; *Oats*, *Ibid*.

PRICE INDEXES: 1850-59 = 100

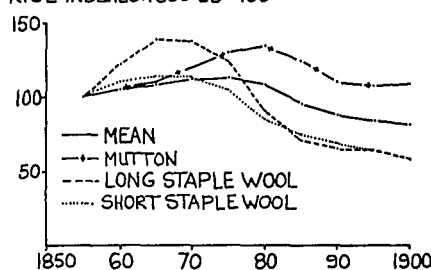


FIGURE 8B
Mutton and Wool Prices 1850-1900

Sources; *Mutton*; Saurbeck Series, Copus, 1987, *op cit*, p 588. *Long Staple Wool*; Lincoln Half Hog, Mitchell and Deane, 1963, *op cit*, p 495. *Short Staple Wool*; Southdown, *Economist Series*, Copus, 1987, *op cit*, p 589.

Depression'. Figures 8a and 8b show the course of the prices of the major farm products. Wheat prices were already in a disadvantaged position relative to barley and oats by the 1860s and 1870s, and the rapid falls which all three cereals experienced during the next two decades served to maintain, or even enhance the contrast. The price of short staple wool fell rapidly from a peak in the 1860s, whilst beef and mutton prices continued to rise into the 1880s, thereafter falling dramatically. Import competition proved fiercest at the lower end of the market. Tallow prices continued to fall, and there was every incentive for the English flockmaster to

⁸⁶ Trow Smith, 1959, *op cit*, p 277.

⁸⁷ Youatt, 1837, *op cit*, pp 237-8.

⁸⁸ Clarke, 1878, *op cit*, p 562; See also; Trow Smith, 1959, *op cit*, p 276. Ryder 1983, *op cit*, p 492.

⁸⁹ T W Fletcher, 'The Great Depression in English Agriculture 1873-1896', *Econ Hist Rev*, 2nd ser, XIII, 1961, pp 417-32; P J Perry, *British Farming in the Great Depression 1870-1914*, Newton Abbot, 1974, pp 40-66; P J Perry, *British Agriculture 1875-1914*, 1973, pp xiv-xix; C S Orwin and E H Whetham, *A History of British Agriculture 1846-1914*, Newton Abbot, 1971, pp 240-2, 258-61.

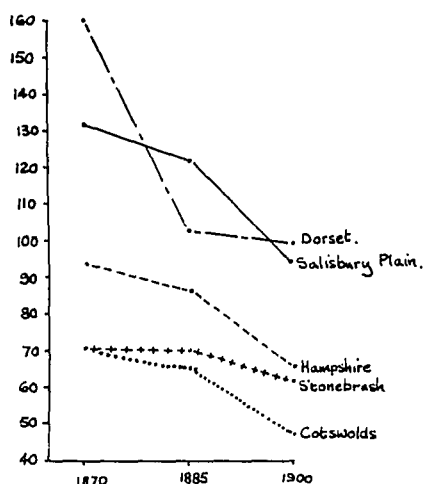


FIGURE 9

Number of Sheep per 1000 Acres in Five Sheep-Corn Districts

Source: Agricultural Returns. For details of parishes in each district, see Copus 1987, *op cit*, pp 609-14.

concentrate on producing sheep with small, lean, well-flavoured joints.⁹⁰

At the same time the effects of the fall in price of arable products were exacerbated by the prevalence of relatively small profit margins associated with 'high farming'.⁹¹ Within such a context, the gentle, but sustained, rise of one particular production cost, labour, was able to have considerable influence upon the evolution of farming systems.⁹² Fig 9 shows that average cash wages in southern and south-western England rose steadily throughout the period.⁹³ As a result many farmers were

forced to develop 'low farming' systems, in which profit margins were maintained only by minimizing inputs, and by extensification. This resulted in a fall in sheep numbers in all the sheep-corn and transitional districts (Fig 9). As far as sheep management was concerned, extensification involved a much more limited use of fodder crops, and a greater reliance upon cheap cereal feeds, imported cake, and grassland. Some of the increase in grassland was achieved by prolonging the life of leys, the rest by laying down, or 'tumbling down' to pasture.⁹⁴

The limited changes in breeds which took place under these conditions were characteristic of retrenchment rather than innovation. The majority of flocks in Hampshire and Wiltshire continued to be comprised mainly of Improved Hampshires.⁹⁵ However, on the poor, high, tumbled-down pastures, more hardy mountain sheep, such as the Cheviots, Black-faced or Welsh, were now often kept.⁹⁶ In Dorset the old horned breed regained much of its former popularity, because although slower in maturing than the Hampshire, it was a more hardy pasture sheep.⁹⁷ On the Cotswolds, and the Stonebrash Hills, the Oxford Down finally ousted the Cotswold, whose heavy fleece was no longer valued since wool prices were so low, and whose meat was too fatty for current markets.⁹⁸ Furthermore, there was a tendency to use a Hampshire ram on the Oxford ewes, so that the lambs had a small, finer carcass.⁹⁹

⁹⁰ W J Malden, 'Recent Changes in Farming Practices', *JRASE*, VII, 1896, p 328; A F M Druce, *Sheep*, *Jnl Bath and West*, V, 1894-5, p 80; A J Stanton, 'Live Stock and British Farming', *Jnl Bath and West*, VI, 1895-6, p 50-1; Anon, 'Good and Bad Points of Sheep', *Jnl Bath and West*, IX, 1898-9, p 235-6; J B Simpson, 'Wool', *Jnl Bath and West*, XII, 1901-2, p 219.

⁹¹ The aim of High Farming was to maximize gross revenue by increasing intensity almost to the point where diminishing returns set in. It follows that net revenue per unit of output would necessarily be small. Darby observed this to be the case in Dorset, Darby, 1872, *op cit*, p 8.

⁹² Darby, 1878, *op cit*, p 134; William Sturge, 'On Some of the Causes of Agricultural Depression', *Jnl Bath and West*, XI, 1879, p 179; Final Report of the Royal Commission on the Depressed State of Agriculture, *BPP*, XXXI, 1894, p 13; William Fream, Report on the Andover District of Hampshire, *BPP*, XXXI, 1894, p 13; Orwin and Wheatham, 1971, *op cit*, p 248; Perry, 1974 *op cit*, pp 126-31, 64; R E Prothero, *English Farming Past and Present*, 6th ed, 1961, p 381.

⁹³ A Wilson Fox 'Agricultural Wages . . .', *Journal of the Royal Statistical Society*, LXVI, 1903, p 331.

⁹⁴ Copus, 1987, *op cit*, pp 336-341.

⁹⁵ Henry Rew, Report on Salisbury Plain, *BPP*, XXXI, 1894-5, p 861; Alfred D Hall, *A pilgrimage of British Farming*, 1913, p 5; Perry, 1974, *op cit*, p 111; Orwin and Wheatham, 1971, *op cit*, p 271; Fletcher, 1961, *op cit*, p 422.

⁹⁶ Rew, 1894-5, *op cit*, p 861; Perry, 1974, *op cit*, pp 44-5; Orwin and Wheatham, 1971, *op cit*, p 361; Hall, 1913, *op cit*, p 5.

⁹⁷ Henry Rew, Report on Dorset, *BPP*, XXXII, 1895-6, p 255; A J Buckle, *Agriculture*, *VCH Dorset*, 1908, pp 282, 284.

⁹⁸ H J Elwes, 'Cross Breed Sheep', *JRASE*, VI, 1895, p 225; Darby, 1878 *op cit*, pp 132-3; Robert Anderson, 'Agriculture', *VCH Gloucestershire*, II, 1907, p 249.

⁹⁹ Elwes, 1895, *op cit*, p 225; In the 1870s a Hampshire Down ewe had often been put to an Oxford Down ram, for the production of early fat lamb, J Coleman, *The Sheep and Pigs of Great Britain*, 1877, p 79.

V

During the one hundred and fifty years after 1750 the sheep breeds of southern England evolved continuously, sometimes rapidly, and at other times more gradually. It is important to relate such changes to the economic environment in which they took place. They were not part of a self-propelled quest for an abstract goal of 'improvement', rather, they were rational responses to long term shifts in the relative price levels of mutton, tallow and wool, and their relationship in turn with the prices of cereals. Three major periods may be identified: The first of these may have begun as early as 1680 and was certainly underway by the mid-eighteenth century. It was prompted by the demand for large fatty joints and tallow and resulted in the New Leicester and the 'improved' horned breeds. By the 1790s these breeds were being superseded in many districts by the Southdown cross. This change was initially a response to the needs of the arable side of farming systems, but soon the new breed was being favoured for its carcass which was ideally suited to contemporary markets. The diffusion of the Southdown cross ushered in a 'Golden Age' of breed modification, which, under the stimulus of favourable prices, produced

a greater variety of new types than any other period, before or since. During the final phase, beginning in c.1875, stagnation set in, very few modifications were made to local breeds. Where these were no longer appropriate to the changed economic environment, advantage was taken of the improvement in communications provided by the railways, and breeds were introduced from other parts of the British Isles.

A final word should be said about the role of the individual improver-breeder in this gradual evolution of breeds. The activities of specialist breeders, such as Bakewell, Twynam, Humphrey, Rawlence, and Saunders, have been widely publicized in the literature. However, the account of the spread of the Southdown, and the development of the Hampshire and Wiltshire Down presented above suggests that much of the work was done by small working farmers. This they achieved by the most economical means available to them; the purchase of a ram, repeated crossing, and the selection of those ewes which best fulfilled the current market requirements. This may be described as a 'democratic' process, involving common sense, and empirically derived principles, rather than an 'heroic' one, depending upon the special skills of a few, well-educated breeder-publicists.