

# Agricultural Statistics in Scotland before 1866

By GEORGE HOUSTON

THE statistics of Scottish agriculture collected in 1845 and over the years 1853-7 were mentioned by Dr J. T. Coppock in his article in this REVIEW (IV, pp. 4-21, 66-79); and Mr W. E. Minchinton in a paper on agricultural returns during the Napoleonic Wars (I, pp. 29-43) referred to the collection of farming data for Sinclair's *Old Statistical Account of Scotland*.

The *Old Statistical Account* (1791-8) and the *New Statistical Account* (1834-45) are well-known sources for the Scottish historian, but though Highland data were used in M. Gray, *The Highland Economy, 1750-1850*, there seems to have been a reluctance to make use of the extensive agricultural statistics they contain. There are a number of possible reasons for this, not least that the extraction and analysis of parish statistics is a long and laborious task, without any definite promise that the fruits will be worth the trouble. Another probable explanation is that Sinclair, in his *General Report of the Agricultural State of Scotland* (1814), published livestock and crop statistics for Scotland that were no doubt assumed to be based on the parish reports in the *Old Account* as well as on the reports to the Board of Trade giving a "General View" of the agriculture of the various Scottish counties around 1800. Sinclair's estimates have been reproduced in later works on Scottish agrarian history. The purpose of this note is to show that some of his figures are misleading and to suggest a method by which they can be revised.

In Table I Sinclair's estimates of crop acreages and livestock numbers (c. 1810) are compared with the returns to the Highland and Agricultural Society for the years 1854 and 1855; data for 1868-9 are added as a check. The apparent decline in the tillage acreage over the period and the relatively high acreage of turnips in 1810 are unexpected and cast some doubt on the reliability of Sinclair's figures. A study of the county statistics available for these periods tends to confirm this suspicion. A number of the county reports to the Board of Trade already mentioned contained crop and livestock statistics, and in Tables II and III these are compared with the county data for 1855. While Sinclair's estimates for cattle and sheep are supported by the county data, his crop figures now look very unreliable. According to the county data, the acreage of turnips and sown grasses in 1855 was very much

TABLE I

LAND USE AND LIVESTOCK IN SCOTLAND, 1810, 1854-5, AND 1868-9

('000 acres or head)

|                                         | c. 1810 | Average<br>1854-5 | Average<br>1868-9 |
|-----------------------------------------|---------|-------------------|-------------------|
| Wheat                                   | 140     | 180               | 130               |
| Barley and Bere                         | 280     | 215               | 225               |
| Oats                                    | 1,260   | 933               | 1,015             |
| Peas and Beans                          | 118     | 43                | 25                |
| Turnips                                 | 407     | 442               | 489               |
| Potatoes                                | 80      | 145               | 173               |
| Flax                                    | 17      | 5                 | 1                 |
| Fallow                                  | 219     | 24                | 55                |
| Other crops                             | 1       | 22                | 26                |
| Unclassified Arable                     | —       | 238               | —                 |
| Tillage                                 | 2,522   | 2,247             | 2,139             |
| Rotation grass }                        | 2,490   | 1,470             | 1,222             |
| Permanent pasture }                     |         | 1,277             | 1,065             |
| Arable<br>(excluding permanent pasture) |         | 3,717             | 3,361             |
| Total crops and grass                   | 5,012   | 4,994             | 4,426             |
| Agricultural Horses                     | 243     | 183               | 187               |
| Cattle                                  | 1,047   | 1,100             | 1,034             |
| Sheep                                   | 2,851   | 5,906             | 7,054             |
| Pigs                                    | 500     | 156               | 135               |

*Sources: J. Sinclair, General Report of the Agricultural State of Scotland, 1814, II, Addenda, p. 5.  
Transactions of the Highland and Agricultural Society, New Series, 1855-7, pp. 207-9.  
Agricultural Returns.*

higher than in 1810; this is more in line with what one expects, as the period is usually considered to be one in which the expansion of these two crops was a major feature of agrarian improvement. Further evidence would be very desirable, however, and the next step is to go back to the parish data in the *Old and New Accounts* and see whether these can help us to build up more accurate estimates of agrarian trends. There are about 1,000 parishes in Scotland and the extraction and aggregation of the relevant data for a large number of these areas can be carried out for c. 1792 (*Old Account*) and c. 1835 (*New Account*).

TABLE II

CROP ACREAGES IN SEVEN SCOTTISH COUNTIES, 1810-55  
(<sup>'000 acres</sup>)

| County         | Wheat      |      | Barley & Bere |      | Oats       |      | Potatoes   |      | Turnips    |      | Sown Grasses |      |
|----------------|------------|------|---------------|------|------------|------|------------|------|------------|------|--------------|------|
|                | c.<br>1810 | 1855 | c.<br>1810    | 1855 | c.<br>1810 | 1855 | c.<br>1810 | 1855 | c.<br>1810 | 1855 | c.<br>1810   | 1855 |
| Kirkcudbright  | 2          | 2    | 3             | 2    | 25         | 34   | 4          | 3    | 2          | 15   | 6            | 69   |
| Wigtown        | 1          | 7    | 3             | 2    | 19         | 35   | 3          | 4    | 2          | 15   | 4            | 62   |
| Midlothian (a) | 10         | 8    | 11            | 11   | 25         | 23   | 2          | 6    | 3          | 14   | 21           | 33   |
| Fife (b)       | 10         | 27   | 20            | 26   | 30         | 44   | 6          | 17   | 5          | 29   | 12           | 66   |
| Kincardine     | 1          | 2    | 10            | 8    | 23         | 30   | 6          | 16   | 6          | 16   | 29           | 37   |
| Aberdeen       | 1          | 5    | 25            | 12   | 152        | 170  | 4          | 8    | 20         | 80   | ..           | ..   |
| Caithness      | —          | —    | 8             | 2    | 37         | 18   | 1          | 1    | 1          | 7    | 1            | 18   |
| Totals         | 25         | 51   | 80            | 63   | 311        | 354  | 26         | 55   | 39         | 176  | 73           | 285  |

(a) About 1795.      (b) About 1800.      .. Not available.  
*Sources:* for 1810, the *General Views of the State of Agriculture* in the relevant counties.  
for 1855, *Transactions of the Highland and Agricultural Society*, New Series, 1855-57, pp. 207-9.

TABLE III

LIVESTOCK NUMBERS IN EIGHT SCOTTISH COUNTIES, 1810-55  
(<sup>'000 head</sup>)

| County        | Horses     |      | Cattle     |      | Sheep      |      | Pigs       |      |
|---------------|------------|------|------------|------|------------|------|------------|------|
|               | c.<br>1810 | 1855 | c.<br>1810 | 1855 | c.<br>1810 | 1855 | c.<br>1810 | 1855 |
| Kirkcudbright | 4          | 5    | 39         | 41   | 130        | 293  | 6          | 7    |
| Wigtown       | 3          | 5    | 32         | 37   | 53         | 89   | 5          | 6    |
| Fife (a)      | ..         | ..   | 60         | 41   | ..         | ..   | ..         | ..   |
| Kincardine    | 2          | 4    | 25         | 27   | 25         | 27   | 1          | 3    |
| Aberdeen      | ..         | ..   | 139        | 141  | ..         | ..   | ..         | ..   |
| Stirling      | 4          | 5    | 19         | 29   | 38         | 85   | ..         | ..   |
| Berwick       | 6          | 5    | 21         | 18   | 108        | 240  | ..         | ..   |
| Forfar        | 8          | 9    | 37         | 51   | 60         | 100  | ..         | ..   |
| Totals        | 27         | 33   | 372        | 385  | 414        | 834  | 12         | 16   |

(a) About 1800.      .. Not available.  
*Sources:* as for Table II.

One of the purposes of this note is to suggest a simple method of linking the figures in the *Old* and *New Accounts* with the parish returns collected since 1866. Only parishes within the county of Dumfries are used, for the application of the methods to the whole of Scotland is a very big task, and our hope is that others interested may be willing to co-operate in covering Scotland as a whole once some of the results of using the method are known.

There are 43 parishes in the county of Dumfries, and reports contained in the *Old* and *New Accounts* varied very much in the agricultural data recorded. For a few parishes, no useful statistics at all were given; in others the material was sketchy or incomplete, but a sufficient number of reporters gave the acreages of crops and numbers of livestock in a form which enables a comparison to be made with the years after 1866 when official parish returns are available. There is no way at present of checking the accuracy of the individual figures given in the *Accounts*, but most of the parish writers took their task seriously and there was no reason for there to be a consistent bias upwards or downwards in their estimates.

The method used in compiling Table IV was as follows. Where a number of reporters in either of the two *Accounts* gave the parish acreages of any crop or numbers of livestock, these were summed and then compared with the total acreages or numbers in the same parishes in 1866, 1913, and 1955.<sup>1</sup> The crop or livestock total calculated for the 1790's was taken as the base (=100) and later years expressed as a percentage of that. The figures in the *Old* and *New Accounts* could rarely be compared directly (because the data on various items referred to different parishes in the two *Accounts*), but as a rule a comparison could be made using 1866 as the link. The changes between 1866, 1913, and 1955 suggested by the table do not correspond exactly to the changes shown by county totals, but the differences are rarely of any importance. The subscripts show the number of parishes on which each figure is based, and the more parishes covered the more reliable the figures are likely to be as a guide to county changes.

The table suggests a number of possible, but still highly speculative, generalizations about agricultural trends in Scotland which similar evidence from other parishes would help to substantiate or refute. Did the arable acreage double between 1792 and 1835? Did the tillage area increase by 50 per cent? Was the increase in livestock before 1866 (when tillage was rising) much slower than after 1866 (when tillage declined)? Is the present tillage acreage in Scotland approximately equal to that of 1792? These are some of

<sup>1</sup> The parish returns are not published but may be consulted in the Scottish Record Office or Department of Agriculture for Scotland.

the questions that the Dumfriesshire figures prompt. They may whet the appetite of other agrarian historians who are interested in such problems of general development.

TABLE IV  
LAND USE AND LIVESTOCK IN DUMFRIESSHIRE, 1792-1955  
(c. 1792=100)

|                                                                                                                                                                                                                       | O.S.A.<br>(c. 1792) | N.S.A.<br>(c. 1835) | 1866 | 1913 | 1955 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|------|------|------|
| Oats                                                                                                                                                                                                                  | 100<br>(8)          | 127<br>(6)          | 117  | 109  | 84   |
| Wheat and Barley                                                                                                                                                                                                      | 100<br>(9)          | [127]               | 20   | 6    | 10   |
| Tillage                                                                                                                                                                                                               | 100<br>(11)         | 150<br>(9)          | 147  | 124  | 100  |
| Arable                                                                                                                                                                                                                | 100<br>(5)          | 200<br>(7)          | 230  | 236  | 240  |
| Horses                                                                                                                                                                                                                | 100<br>(22)         | ..                  | 100  | 103  | 26   |
| Cattle                                                                                                                                                                                                                | 100<br>(23)         | 114<br>(11)         | 113  | 165  | 289  |
| Sheep                                                                                                                                                                                                                 | 100<br>(25)         | 116<br>(11)         | 134  | 206  | 190  |
| Pigs                                                                                                                                                                                                                  | 100<br>(8)          | 224<br>(8)          | 210  | 76   | 123  |
| <p>The figure in square brackets is a rough estimate based on the acreage of white crops.<br/> .. Not available.<br/> <i>Sources: Old Statistical Account, New Statistical Account, and Agricultural Returns.</i></p> |                     |                     |      |      |      |