April, 1958

REPORT No. 104

UNIVERSITY OF BRISTOL
DEPARTMENT OF ECONOMICS
(Agricultural Economics)

VIM PROMOVET INSITAM

THE FARMS OF DORSET

An Economic Classification of the 5,265 Agricultural Holdings in the County

PRICE FIVE SHILLINGS

1, COURTENAY PARK
NEWTON ABBOT
DEVON

THE FARMS OF DORSET

AN ECONOMIC CLASSIFICATION OF THE 5,265 AGRICULTURAL HOLDINGS IN THE COUNTY

BY

J. A. LANGLEY, M.Sc.,

AND

H. W. B. LUXTON, B.Sc., Dip. Agr. Econ.

"The purpose of classification is not to set it so it is final and the indisputable truth, but rather to afford stepping-stones towards better understanding."

L. C. GRATOR

CONTENTS

Cover Photograph:
A Dorset Landscape.

I.

INTRODUCTION

This report presents the results of a classification of all farms in the County of Dorset. Many accounts of the farming of Dorset have been compiled in the past, but there is little doubt about the need for an up-to-date record and perhaps a more complete picture than has been produced hitherto. It may be that this more factual statistical picture will not be quite so readable as some previous ones, since it has been prepared primarily to meet the needs of the student of agriculture rather than to entertain the general reader. Nevertheless, the general reader will no doubt find much of interest in this account.

The purpose of this publication is to give a picture of the farming in the county, its organisation, structure and general characteristics which only a knowledge of the individual farm units can supply. While our knowledge has improved in recent years there are still gaps. More specifically the objects of this study may be stated as:—

(1). To determine the number of full-time farms in the county, that is, holdings with enough resources to provide at least one man with a full-time occupation—and to show the relative importance of such units.

(2). To classify the full-time farms into broad farming types.

(3). To study the location and relative importance of these farms when grouped by size and type.

(4). To show the basic organisation of the various types of farm.

(5). To provide a general fund of statistics relating to the farms of Dorset.

In addition to these objectives this classification is designed to be of immediate use until such time as a more comprehensive classification of the farms in a wider area of the South West can be made. In this respect the study provides valuable experience in the techniques and problems of farm classification.

The uses of a farm classification are many, for a thorough knowledge of the number, sizes and types of farms in any given area is of particular interest to many persons connected with the agricultural industry. Such knowledge can provide a basis for policy decisions and planning. A classification is the starting point for much research in agriculture, particularly in agricultural economics where sampling is so important. In this field a classification should provide the framework for systematic enquiries of all types. It is important to realize that such knowledge is helpful in advisory work and in many education programmes. Also, many of the allied industries, and the general public, are often very interested in the agriculture of a particular area.

This classification is based on a study of the Ministry of Agriculture's June 4th Returns (for holdings over 1 acre) for the year 1953, plus a considerable volume of data contained in the Department of Agricultural Economics of the University of Bristol at Newton Abbot.

II.

DORSET

Situation and Size

Dorset is situated about half-way along the south coast of Britain which stretches from Dover to Land's End. It is not a large county. The official statistics show that of the forty-nine English administrative counties, Dorset ranks twentieth in size and thirty-second in size of population. In recent years the agricultural returns have shown a total of some 430 thousand acres of crops and grass plus about 50 thousand acres of rough grazings. The bordering counties from west to east are Devon, Somerset, Wiltshire and Hampshire.

Towns and Industries

Dorset is largely an agricultural county—there being only small amounts of light industry scattered over the area. In times past there were, of course, other important industries to supplement the employment in farming, but most of these were largely domestic crafts carried on in the home or in small scale factories. Then the growth of industry and population near the coalfields and other sources of power resulted in counties like Dorset developing as primarily agricultural areas. These changes did not apply to all industries, such as the extractive industries for example. The stone industry at Portland has continued to flourish for many years. Mineral deposits of ball clay are mined and dug in South East Dorset as the basis of a thriving pottery industry. In addition, sand and gravel pits supply markets outside the county. Mention should also be made of the rope and net making at Bridport. Recently there have again been fresh developments to bring a larger variety of industry and employment to the county.

There are several towns of considerable size but no really large consuming centres in the county. Bornemouth, just over the border in Hampshire, is the nearest large centre of population. Many of the towns of Dorset are agricultural market towns and several are places of historical interest. Dorchester is the county town, and Wimborne, Shaftesbury, Sturminster Newton, Sherborne, Blandford, Bridport and Wareham are other centres. In addition Poole, Weymouth, Lyme Regis and Swanage are coastal towns.

Geography

The county of Dorset is a fairly compact land area characterised by a long coast line on the southern side. No point in the county is more than about 40 miles from the sea. Physical features show that the hilly chalk downs stretch through much of the central and southern parts, whilst in the north there is a tract of low-lying vale land and in the south-east the heathlands form a large expanse of fairly low-lying land. There is little land of exceptionally high altitude for although the downs are hilly country there is not a great deal of the land above 500 feet.

The average rainfall is between 30 and 40 inches, being higher on the downs and the hills than in other parts of the county. The climate of Dorset is not a rigorous one. Indeed this particular part of the coast is often referred to as a warm zone and with a good deal of sun and a moderate rainfall, conditions are often ideal for crop production.

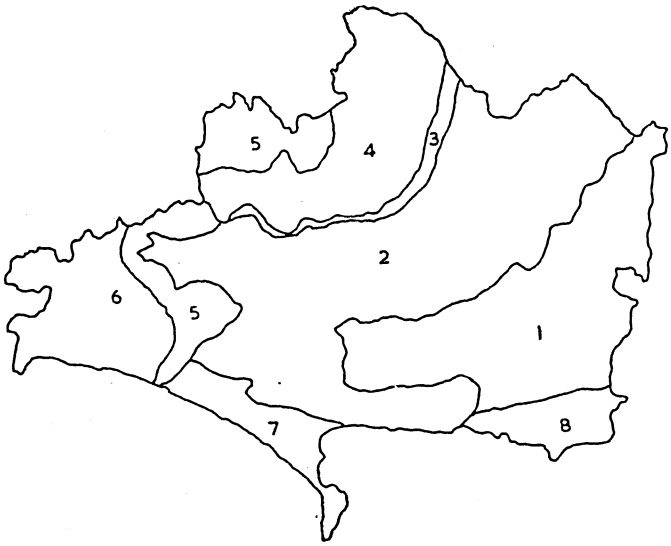
The two main rivers of the county are the Stour and the Frome. The Stour enters the northern part of the county above Sturminster Newton and after being joined by tributaries flows south eastwards by Blandford Forum and Wimborne Minster into Hampshire and then to the sea by Bournemouth. The Frome rises in the western part of the county and after being joined by the Cerne near Dorchester flows south eastwards in the lower part of the county to Wareham and then into Poole Harbour.

Geology and Soils

Figure 1 shows the extent of the main geological strata in Dorset. Area 1 shows the considerable extent of the heathland of South East Dorset and the underlying main geological strata—namely the Reading Beds, the London Clay and the Bagshot Beds. This area is largely characterised by poor sandy soils—growing only heather and gorse in some parts—and some clay.

FIGURE 1.

THE MAIN GEOLOGICAL FORMATIONS OF DORSET (for key see text)



Area 2 shows the extent of the Chalk—the largest geological formation in Dorset. In general the majority of soils on the chalk are of poor inherent fertility and on account of the porous nature of the chalk are liable to suffer from drought. Chalk soils are very varied but may be roughly divided into four main types.* The first type is found on the hill tops and consists of a sticky red "clay with flints." Secondly, there are the very shallow soils with the chalk rock just below the surface. Thirdly, in the valleys of the chalk district, good loams are found with fairly deep soil. Lastly, in a few places on the chalk a sticky, marly soil is to be found.

* "Notes on the Management, Manuring and Composition of Some Dorset Soils." Bulletin issued by University of Reading and Dorset County Council, 1931.

Area 3 is a thin belt of Greensand bordering the chalk and the clay formations and heavy land of the Blackmore Vale (Area 4). The Greensand gives rise to sandy soils. In Area 5 the soils are rather different in that Oolitic and Lias formations give rise to fertile loams which are rarely as heavy as the clay soils of North Dorset. In West Dorset (Area 6) there is a mixture of Greensand and Lias, whilst in Area 7 there are also mixed formations of clays and lighter soils. In Area 8, the lower part of the Isle of Purbeck, the Portland and Purbeck Beds consist of a mixture of soils with some clay.

Historical

The earlier surveys relating to the agriculture of the county, around the year 1650, state that many commodities were produced in Dorset, but that cattle, corn and sheep were the most important. Graziers and feeders drove the fat cattle to London and both the corn and the wool were shipped to the continent from Weymouth, Poole and other ports on the South Coast. Later surveys refer to the numerous flocks of sheep on the open and unenclosed parts and speak of sheep as the main agricultural product of the county.

But, in studying the agriculture of the county, the vale, the down and the heath will always be distinct. In the northern part of the county the vale of Blackmore is a well-wooded area of heavy land pastures which was in early times natural forest. Beef cattle have played an important role in the farming of this locality in the past, but little corn was grown. The early surveys tell of the black cattle fattened on these pastures producing some of the finest grained meat in the country. The graziers of beef cattle gradually gave way to the dairy farmers, however, many of whom made butter and cheese on the farm and fattened large numbers of pigs on the by-products of these enterprises. In recent years the butter making and cheese making has almost entirely ceased and the majority of the farmers now sell their milk wholesale, but pigs still remain an important sideline. To-day the area is a typical milk producing area where small to medium sized farms predominate.

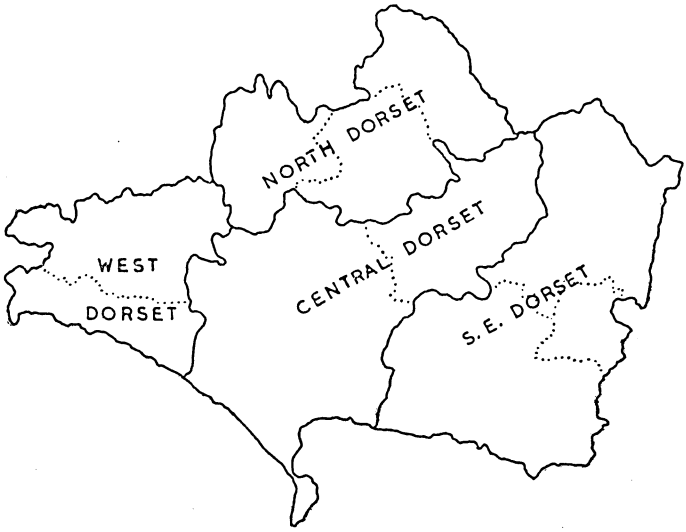
The downs of central and southern Dorset are characterized by soils of a light chalky nature. From 1700 to 1875 the early writers describe how these areas were covered with innumerable flocks of sheep for the production of early fat lamb and wool. The sheep were also folded on arable crops to enrich the land for the production of cereals. Wheat and barley were the chief grain crops. "More sheep—more corn" was the policy at this time. There was a marked change in the farming system, however, after the depression of 1873-96, due to the intense competition in corn growing as a result of the flood of cheap corn imported from North America. Later, the development of refrigerated ships resulted in severe competition in meat from South America and Australasia. To-day the root crops and folded sheep have given way to the ley and the dairy cow. At the same time changed supply conditions for imported corn, and technical developments in the production of corn crops on British farms have combined to make possible profitable corn growing and corn is again an important crop in these areas.

Four Regions

Figure 2 shows the division of the county into nine rural districts and the grouping of these into four larger districts. It is rather fortunate that these districts roughly correspond with fairly well defined geographical and geological areas of the county. Thus the grouping of the

FIGURE 2.

THE FOUR REGIONS OF DORSET



Sherborne, Sturminster and Shaftesbury rural districts together gives an area which includes the vale country of North Dorset. A combination of Blandford and Dorchester rural districts roughly corresponds to the approximate extent of the chalk formations of central and southern Dorset. Then Wimborne and Wareham districts conveniently include all the heathlands of the Tertiary lowlands. Finally, Bridport and Beaminster districts cover the mixed soils of West Dorset. A sub-division of the county into these four main regions enables the classification to show some of the distinctive features of the different parts of the county.

III.

THE FARMS CLASSIFIED*

Number and Class of Holdings

At the 4th June, 1953 there were 5,265 holdings over one acre in Dorset. The starting point in this classification therefore was 5,265 farm cards—a card for each holding in the county compiled from the June 4th Returns and other data. The first stage in sorting these cards was to amalgamate a number of holdings where the evidence showed they were being farmed in conjunction with parent holdings. After attaching 116 cards to their parent holdings the total of 5,265 holdings was reduced to 5,149 agricultural units. These 5,149 units are grouped by size in Table 1 (Appendix 1A)†.

The next stage in the classification was to separate the "farms" from the smaller pieces of land, that is, to distinguish the units which were large enough to provide at least one man with a full-time occupation. Table 1, which groups the 5,149 units by size, suggests that there were likely to be a great many units which were odd pieces of land, land attached to residential houses, or units providing only a part-time occupation for the operator. The division between full-time, part-time and spare-time and other units was made on the basis of the assumed labour requirements of the crops and livestock on each holding.

Table 2 shows the result of this sorting. Very few of the units under 5 acres and only 23% of these between 5 and 20 acres, can be classed as full-time units. For the county as a whole the distribution is as follows:—

	Units	
	Number	*Per Cent*
Full-time	3079	59·8
Part-time	750	14·6
Spare-time and other ...	1320	25·6
	5149	100·0

Table 3 shows the relative importance of these three classes on the basis of the acreage farmed and the livestock carried. The part-time and spare-time units comprise a very small percentage of the land (3·6%) and have only 3·4% of the cattle and virtually no sheep. But, on the other hand, as one would expect, these two classes combined account for some 13% of the pigs and 14% of the poultry.

Full-time Farms

The final stages in the classification procedure was to sort the 3,079 full-time farms into type-of-farming groups. This is necessary for at least two reasons. Firstly, a division of the farms into a few broad type groups gives the reader a quick picture of the agriculture of the area. Secondly, if any detailed analysis is made, it is essential that the farms are first grouped into more homogeneous sub-groups.

* This section gives the main results of the classification. Fuller details explaining methods in the classification will be found in the notes in Appendix II.

† Tables 1—21 appear in Appendix 1A.

Type of farm classification is essentially grouping of farms by main enterprises or combinations of enterprises. Usually, a particular farm is referred to by its main enterprise if that enterprise is by far the most important on that farm, for example, a Dairy farm or a Sheep farm. Alternatively, a farm type may derive its name from a combination of enterprises or products, for example, a Cropping farm or a Mixed Livestock farm. Suffice it to say here that details of the methods are outlined in the notes in Appendix II of the report.

During the classification process twelve type of farming groups were identified and the order in which they appeared was as follows (see also diagram in Appendix II):—

Group No.	*Type*
1	Mainly Dairy
2	Dairy with Livestock
3	Dairy with Crops
4	Specialist Pig
5	Specialist Poultry
6	Pig and Poultry
7	Market Garden
8	Cropping with Dairy
9	Cropping with Livestock
10	Cattle and Sheep
11	Mixed with Crops
12	Mixed Livestock

A summary of the results of the type of farm sorting is set out below in tabular form giving the numerical and percentage distribution of the farms by type group. The average size of farm in each type group is also given. Some re-arrangment in the order of grouping has been made for convenience of the description and discussion which follows.

The table indicates that 2,358 farms or 77·9% are grouped as dairy types. This illustrates the importance of milk production in the farming of Dorset and the fact that three out of every four farms may be classed as dairy farms. Other Livestock and Specialist types account for most of the remaining farms.

In Table 4 the acreage farmed in each type group is shown. The dairy farms account for 79·3% of the total acreage. The mixed farms, although small in numbers, occupy quite a large slice of the land, but on the other hand the more numerous specialist farms occupy less than 1% of the land. This, of course, is a reflection of the average size of farm. Three main points can be made to illustrate the main differences between type groups:—

(a). The average acreage per farm for the dairy and livestock types is a moderate figure—generally between 100 and 200 acres.

CLASSIFICATION OF 3,029* FULL-TIME FARMS BY TYPE GROUP

Type Group	*Group No.*	*Farms*		*Average Size of Farm (acres)*
		Number	*Per Cent*	
Dairy Types				
Mainly Dairy ...	1	1481	48·9	129
Dairy with Livestock	2	720	23·8	153
Dairy with Crops ...	3	157	5·2	409
Total		2358	77·9	—
Livestock Types				
Cattle and Sheep ...	10	26	0·9	198
Mixed Livestock ...	12	189	6·2	97
Total		215	7·1	—
Cropping Types				
Cropping with Dairy	8	18	0·6	515
Cropping with Livestock	9	18	0·6	344
Total		36	1·2	—
Mixed Types				
Mixed with Crops ...	11	130	4·3	407
Specialist Types†				
Specialist Pig ...	4	25	0·8	21
Specialist Poultry ...	5	50	1·6	15
Pig and Poultry ...	6	40	1·3	16
Market Gardens ...	7	175	5·8	7
Total	—	290	9·5	—
TOTAL ...	—	3029	100·0	152

*3,079 Full-time farms less 50 unclassified.

† The term "Specialist Types" has been reserved here for Groups 4, 5, 6 and 7 to include the small intensively operated pig, poultry and market garden holdings. There are other farms which specialize on one product, e.g. the Mainly Dairy farms, but these are more conveniently classified with the Dairy Types.

(b). The Cropping, Dairy with Crops and the Mixed with Crops farms are generally much larger with an average size of farm around 400 acres.

(c). The small average acreage per farm of the Specialist types—particularly the Market Gardens.

Table 5 shows that all farms under 5 acres are classed as specialist farms and 83% of these are Market Gardens. As larger size groups are encountered the proportion of dairy farms rise until in the 100—150 acre size group some 90% of the farms are classed as dairy types. In size groups above this the importance of dairy farms declines and cropping farms become more important.

Table 6 gives the percentage distribution of farms by size within each type group whilst in Table 7 the distribution of farms by type within each of the four regions of the county is shown. This shows the significant differences in the farming of the various regions of the county. For instance, in West Dorset and North Dorset farms of the three dairy types account for 80—90% of the total number of farms. In Central Dorset, however, although there are many dairy types, the incidence of farms with a considerable amount of cropping is apparent. In South East Dorset the proportion of dairy types is even lower because of the considerable importance of both cropping farms and specialist farms. More will be said about this regional distribution in the following section dealing with the individual farm types.

Dairy Farms (Groups 1, 2 and 3)

Location

One of the main points brought out in the previous section is the preponderance of dairy farms and in the first instance it may be appropriate to show the regional distribution of these farms. The following figures show their distribution between the four main regions of the county. These regions are not of equal size, however, so that care must be taken in making any comparison. But it is clear that a large proportion of the dairy farms are situated in West and North Dorset. These are largely grassland dairy areas where smaller sized farms predominate, and these areas may show a preponderance in numbers of Mainly Dairy and Dairy with Livestock farms for that reason. The numerical importance of Dairy with Cropping farms in Central and South West Dorset indicates the better tillage conditions in these parts.

	Mainly Dairy	*Dairy with Livestock*	*Dairy with Crops*	*Total*
		Number of Farms		
West Dorset	403	186	19	608
North Dorset	530	268	27	825
Central Dorset	343	102	60	505
S.E. Dorset	205	164	51	420
	1481	720	157	2358

Size Distribution

The size distribution of the farms in each of the three dairy groups is shown in Table 6. The average size of farm in the Mainly Dairy group is 129 acres and the size distribution shows that over half the farms

in this group are below 100 acres. The average size of farm for the Dairy with Livestock group is slightly larger, at 153 acres per farm, but here again half the farms are under 100 acres and most of the remainder are from 100 to 300 acres in size. On the other hand, the average size of farm in the Dairy with Crops group is 409 acres and the size distribution in Table 6 shows that half the farms are over 300 acres. In Table 8 the three groups together have been set out by region according to size of farm.

Size of Herd

In Table 9 the 2,358 farms in the three dairy groups are distributed by size of farm and by the number of milking cows per farm. The general result is as follows:—

No. of Cows Per Farm	*No. of Farms*	*Per Cent. of Farms*
0—10	179	7·6
10—20	758	32·1
20—30	590	25·0
30—40	372	15·8
40—50	167	7·1
50—60	99	4·2
60+	193	8·2
	2358	100·0

A high proportion of the farms have herds of between 10 and 20 cows, and nearly two-thirds of the farms have less than 30 cows. But on the other hand there are some large dairy herds in Dorset—particularly on the bigger dairy farms in Central and Southern Dorset. There are 193 herds—or some 8% of the farms—with 60 cows or more. The higher proportion of large herds in Central Dorset is shown by the following figures:—

No. or Cows per Farm	*Per Cent. of Herds*			
	West Dorset	*North Dorset*	*Central Dorset*	*South East Dorset*
0—30	78	61	56	64
30—60	20	32	30	24
60+	2	7	14	12
	100	100	100	100

Combination of Enterprises with Dairying

When the estimated output of the various enterprises was calculated on the farm cards, it was possible, by setting a minimum rating, to record the number and combination of enterprises on any particular farm. Any particular enterprise qualified as "an enterprise" provided its output was £100—or it could be less than £100 if it accounted for 5% or more of total farm output. Table 11 shows that the combination of two or three enterprises per farm was most common. Several farms had four enterprises, but only 7% of the farms had five or more enterprises. With regard to the combination of enterprises Table 12 shows that dairying with pigs and/or poultry was the most popular combination, particularly on the smaller farms. On the larger farms crops replaced either the pigs or the poultry, or were in addition to both these enterprises.

Land Use

An indication of the average land use by the three types of dairy farms is given in Table 14. Over the whole group of farms one-fifth of the land is under tillage crops and a further 14% under temporary grass. After allowing 10% for rough grazings this means that just over half the land is under permanent grass. Cropping patterns vary of course according to the size of farm. There is a higher proportion of cereals on the larger farms and on the largest farms the percentage tillage approaches 30%. The proportion of temporary grass is also three or four times greater on the largest farms than on the very small farms. Very few cash roots such as potatoes and sugar beet are grown on these dairy farms. When considering cash crops Dorset farming is characterized by corn growing rather than cash roots.

Livestock Carried

The average rate of stocking with milking cows over all farms in the three dairy groups was 18·7 milking cows per 100 total acres. The smaller farms were more intensively stocked than the larger farms. Leaving out the very small farms, the stocking with milking cows per 100 acres ranged from 34·2 on the 20—50 acre farms to 11·2 on the farms of 500 acres and over. The average rate of stocking with pigs also declined as farm size increased. Over all groups the average was 5·9 pigs per 100 acres. On the other hand, the rate of stocking with sheep increased as farm size increased until on the large farms there were 13·3 sheep per 100 acres (5·6 breeding sheep). Lastly, poultry, like pigs, show a much higher rate of stocking per 100 acres on the small farms. On the very smallest group the rate was 1,000 head per 100 acres, but over the whole group some 114 head of poultry per 100 acres was the average number kept.

The differences in land use and livestock carry between the four regions of the county are shown in Table 15. The proportion of tillage in Central and South East Dorset is nearly double that in North and West Dorset. This is almost solely due to the higher proportion of cereals. There is also more temporary grass in the earlier mentioned districts. Tillage operations are almost out of the question on some of the wet land in North Dorset, but the drier land in the southern part of the county is much more conducive to an intensive cropping policy. With the preponderance of small farms and the higher proportion of grass on North and West Dorset, however, the cattle population is higher.*

Cattle and Sheep and Mixed Livestock Farms (Groups 10 and 12)

The classification indicates that there are 26 Cattle and Sheep farms and 189 Mixed Livestock farms in the county. The former group includes farms where cattle rearing and/or sheep account for the bulk of the farm output. Few parts of Dorset are used for extensive livestock rearing on these lines. It may well be that some of these are farms which rear young dairy cattle for other dairy farms under the management of the same operator. For example, the milking herd may be on one farm where the buildings are good but all the young stock and dry cows are kept on a second farm which is suited for that purpose. It is difficult to decide whether these farms should be considered as separate units or one

* See Density of Stocking Maps in Appendix 1.C.

farm, but in any case the descriptive details on a June Census return give an inadequate picture of the position. But the returns show that most of the young cattle on these farms are female cattle and that the young cattle were much more important than sheep. The average size of farm for this group is about 200 acres, and the average land use and livestock carried per 100 acres is shown in Table 16.

On the other hand, the Livestock, or rather Mixed Livestock farms are very different. Here the average size of farm is 97 acres, and the majority of these are small farms. On these farms dairying accounts for less than 50% of the total farm output, even though many of these small intensive farms have a considerable dairy unit. The reason is that the pigs, poultry, sheep and beef sidelines have been built up to such an extent that dairying no longer accounts for half the output of the farm. There is also a small amount of cash cropping on some farms. Generally speaking then, this is a group of small intensive livestock farms with several enterprises, and the following figures give an idea of the various combinations to be found.

Combination of Enterprises	*Farms*	
	Number	*Per Cent*
Milk, Pigs	3	1·5
Milk, Poultry	25	13·2
Milk, Pigs, Poultry	56	29·7
Milk, Pigs, Poultry, Crops ...	35	18·5
Milk, Beef, Pigs, Poultry ...	15	8·0
Milk, Beef, Pigs, Poultry, Crops	18	9·5
Other combinations	37	19·6
	189	100·0

The four most popular enterprises other than milk were, pigs, poultry, beef and crops. The majority of farms in the group had three enterprises, but many had four.

The average cropping and stocking per 100 acres for each of these type groups is shown in Table 16. The main feature in the cropping of the Cattle and Sheep Group is the high proportion of permanent grass and secondly the numbers of store cattle carried. On the Mixed Livestock farms there is a considerable amount of tillage which, together with the high rate of stocking with cattle, pigs and poultry, indicates the intensive nature of these farms.

Cropping and Mixed with Crops Farms (Groups 8, 9 and 11)

There are very few cropping farms in Dorset which derive more than half their output from crop sales. On the basis of this classification only 36 farms are recorded in this category (1·2% of the farms). Invariably, there are considerable livestock enterprises on the crop farms. The land goes through a rotation which usually includes a two or three year ley before going back to corn. Dairy cows and sheep are the main livestock kept to utilise the grass, though occasionally a large beef enterprise is found instead of dairy cows. More generally crop output accounts for 20—50% of total farm output. The classification shows a group of 130 farms called Mixed with Crop farms in this category.

Location

The cropping maps for wheat and barley (see Appendix) indicate

that the majority of the cropping farms are found in a wide belt across central and southern Dorset. The area corresponds to the chalk downs where the soils are relatively light and easy to plough, are free draining and grow good crops of corn. It stretches from Handley, Pentride and Cranborne in East Dorset by Blandford sweeping down the central part of the county over and around Dorchester and then ending short of Bridport and Beaminster. Cropping farms are also found on the Oolitic and Lias soils near Sherborne where the land is also fairly easily ploughed and cultivated.

Size of Farms

It has already been mentioned that the size of farms in the cropping groups is much greater than that for other groups. The average size of farm in the three groups is shown below:—

		Average Size
Cropping with Dairy	...	515 acres
Cropping with Livestock	...	344 acres
Mixed with Crops	...	407 acres

But in each group there is a wide range in the different farm sizes, from around 100 acres to over 1,000 acres. The distribution for the three groups combined is as follows:—

		Farms	
		No.	%
Under 100 acres	...	35	21
100—300 acres	...	39	23
300—500 acres	...	33	20
500 acres and over	...	59	36
		166	100

The high proportion of large farms over 300 acres—and especially those over 500 acres—is also indicated by the fact that although these three type groups contain only 5·5% of the farms, they account for 14·9% of the land.

Land Use and Livestock Carried

Table 16 shows the average cropping of these three groups of farms. Several points are worthy of comment. Firstly, the percentage tillage in the two cropping groups is nearly three times as high as that for the dairy farms. Secondly, the preponderance of barley as the main cereal on the large cropping farms. The acreage of wheat is also higher than on dairy farms but that for oats and mixed corn is about the same. Thirdly, the higher proportion of temporary grass on the cropping farms. Lastly, the rate of stocking with cattle and poultry is much lower on the crop farms than on the dairy farms.

The Mixed with Crops group differs from the cropping farms, because of a much lower proportion of barley. Also the average rate of stocking with most of the livestock enterprises is considerably higher.

Specialist Farms (Groups 4, 5, 6 and 7)

Pig Farms

This is a group of 25 small intensive livestock farms on which 75% or more of the estimated total farm output comes from a pig enterprise.

These farms appear to be scattered over most regions of the county with no particular grouping in any one area. The average size of farm is 21 acres, and the average number of pigs per farm is 217. Of the total stock of 217 pigs, 25 are breeding animals. Frequently pig and poultry enterprises are run together but instances of pigs with market garden crops, pigs with a few dairy cows or pigs as a sole enterprise are found.

Poultry Farms

This is a group of 50 small farms where 75% or more of the estimated total farm output is derived from the poultry enterprise. The average size of farm for this group is 15 acres. Like the specialist pig farms, these are heavily stocked with intensive livestock. The average size of the poultry flock is 2,325 birds. The flock sizes range from 700—800 birds up to 10,000 birds per farm. Only the poultry enterprise is found on several farms but usually either a few dairy cows or pigs are found in conjunction with the poultry. There is a definite tendency for the specialist poultry farms to be concentrated in South East Dorset around Poole and the outskirts of Bournemouth—the main centres of population (see maps in Appendix).

Pig and Poultry Farms

For small intensive livestock farms where both pigs and poultry contribute substantially to total farm output a separate group can be made. For these farms 80% of the estimated total farm output has to come from pigs and poultry combined. The classification showed 40 of these farms with an average size of 16 acres per farm. Like the poultry farms, there is a tendency for these farms to be concentrated around the outskirts of Bournemouth and the centres of population in South East Dorset (see maps in Appendix).

Market Gardens

This is a group of 175 farms obtaining the bulk of their income from vegetables, flowers and other nursery crops. There is a marked concentration of these farms on the outskirts of Bournemouth in South East Dorset. There are also a number of market gardeners around Weymouth on the south of the coast. The remaining market garden holdings are scattered in several other localities of the county. The average size of farm for this group is some 7 acres per farm and over half the farms are under 5 acres in size. The June census returns give little information of the type of crops grown since only broad categories are included. It is therefore impossible to analyse the output of this group in any detail.

APPENDIX IA

Tables 1—21

TABLE 1

CLASSIFICATION OF THE AGRICULTURAL UNITS OF DORSET BY SIZE (4th June, 1953 Statistics))

Size Groups	*Units*		*Total Acreage*	
	Number	*Per Cent*	*Acres*	*Per Cent*
Under 5 acres ...	1205	23·4	3148¾	0·7
5 and under 20 acres	1000	19·4	10086¼	2·1
20 ,, ,, 50 ,,	740	14·4	24822½	5·1
50 ,, ,, 100 ,,	795	15·4	56396¼	11·6
100 ,, ,, 150 ,,	438	8·5	53747¼	11·1
150 ,, ,, 300 ,,	564	11·0	115830¾	23·9
300 ,, ,, 500 ,,	229	4·4	87275½	18·0
500 ,, ,, 700 ,,	92	1·9		
700 ,, ,, 1000 ,,	63	1·2	133764¼	27·5
1000 acres and over ...	23	0·4		
Total	5149	100·0	485071½	100·0

Units grouped by total acreage, i.e. Crops and Grass plus Rough Grazings.

TABLE 2

CLASSIFICATION OF 5149 UNITS INTO FULL-TIME PART-TIME AND SPARE-TIME AND OTHER UNITS

Size Group	*Number of Units*				*Per Cent of Units*			
	Full-time	*Part-time*	*Spare-time etc.*	*Total*	*Full-time*	*Part-time*	*Spare-time etc.*	*Total*
Under 5 acres	115	175	915	1205	9·6	14·5	75·9	100·0
5 and under 20 acres	230	390	380	1000	23·0	39·0	38·0	100·0
20 ,, ,, 50 ,,	575	150	15	740	77·7	20·3	2·0	100·0
50 ,, ,, 100 ,,	750	35	10	795	94·3	4·4	1·3	100·0
100 ,, ,, 150 ,,	438	—	—	438	100·0	—	—	100·0
150 ,, ,, 300 ,,	564	—	—	564	100·0	—	—	100·0
300 ,, ,, 500 ,,	229	—	—	229	100·0	—	—	100·0
500 acres and over	178	—	—	178	100·0	—	—	100·0
Total	3079	750	1320	5149	59·8	14·6	25·6	100·0

TABLE 3

DISTRIBUTION OF LAND AND LIVESTOCK BETWEEN FULL-TIME, PART-TIME AND SPARE-TIME AND OTHER UNITS

	Percentage in each class of unit			
	Full-Time	*Part-Time*	*Spare-Time and Other*	*Total*
Total Acreage ...	96·4	2·2	1·4	100·0
„ Cattle	96·6	2·7	0·7	100·0
„ Sheep	99·8	—	0·2	100·0
„ Pigs	87·3	9·5	3·2	100·0
„ Poultry ...	86·0	8·4	5·6	100·0

TABLE 4

CLASSIFICATION OF 3029* FULL-TIME FARMS BY TYPE OF FARM

Type Group	*Farms*		*Total Acreage*		*Average Size of Farm (acres)*
	Number	*Per Cent*	*Acres*	*Per Cent*	
Mainly Dairy	1481	48·9	190,807	41·5	129
Dairy with Livestock ..	720	23·8	110,046	23·9	153
Dairy with Crops ..	157	5·2	64,160½	13·9	409
Cattle and Sheep ..	26	0·9	5,136½	1·1	198
Livestock	189	6·2	18,314½	4·0	97
Cropping with Dairy ..	18	0·6	9,276½	2·0	515
Cropping with Livestock	18	0·6	6,191½	1·4	344
Mixed with Crops ..	130	4·3	52,895	11·5	407
Specialist Pig	25	0·8	523¾	0·1	21
Specialist Poultry ..	50	1·6	730	0·2	15
Pig and Poultry	40	1·3	626¼	0·1	16
Market Gardeners ..	175	5·8	1,255	0·3	7
Total	3029*	100·0	459,962½	100·0	152

* 3079 farms less 50 which are unclassified

TABLE 5

PERCENTAGE DISTRIBUTION OF FARMS BY TYPE WITHIN EACH SIZE GROUP

Type Group	*Under 5 Acres*	*5 and under 20*	*20 and under 50*	*50 and under 100*	*100 and under 150*	*150 and under 300*	*300 and under 500*	*500 and over*	*All Farms*
				Percent of Farms					
Mainly Dairy	—	11	57	61	63	52	41	17	48
Dairy and Livestock	—	17	25	26	26	26	25	22	24
Dairy and Crops	—	—	2	1	1	9	16	26	5
Cropping with Dairy	—	—	—	—	—	1	1	6	1
Cropping with Livestock	—	—	—	1	—	—	1	3	1
Cattle and Sheep	—	—	—	1	2	2	1	1	1
Livestock	—	17	7	6	6	5	2	1	6
Mixed with Crops	—	—	2	2	2	5	13	24	4
Specialist Pig	—	7	1	1	—	—	—	—	1
Specialist Poultry	4	13	2	—	—	—	—	—	1
Pig and Poultry	13	7	1	1	—	—	—	—	1
Market Gardeners	83	28	3	—	—	—	—	—	6
Total	100	100	100	100	100	100	100	100	100
Number of Farms	115	230	575	725	435	546	226	177	3029

TABLE 6

PERCENTAGE DISTRIBUTION OF FARMS BY SIZE WITHIN EACH TYPE GROUP

Size Group	*Mainly Dairy*	*Dairy with Live-Stock*	*Dairy with Crops*	*Crop-ping with Dairy*	*Crop-ping with Live-Stock*	*Cattle and Sheep*	*Live-stock*	*Mixed with Crops*	*Special-ist Pig*	*Special-ist Poultry*	*Pig and Poultry*	*Market Garden-ers*
					Percent of Farms							
Under 5 acres	—	—	—	—	—	—	—	—	—	10	38	54
5 and under 20 acres	2	6	—	—	—	—	21	—	60	60	38	37
20 ,, ,, 50 ,,	22	20	6	—	—	—	21	8	20	30	12	9
50 ,, ,, 100 ,,	30	26	6	—	56	19	24	11	20	—	12	—
100 ,, ,, 150 ,,	19	15	4	—	—	35	14	5	—	—	—	—
150 ,, ,, 300 ,,	19	20	31	33	—	35	16	21	—	—	—	—
300 ,, ,, 500 ,,	6	8	24	11	11	7	3	22	—	—	—	—
500 acres and over	2	5	29	56	33	4	1	33	—	—	—	—
Total	100	100	100	100	100	100	100	100	100	100	100	100
Number of Farms	1481	720	157	18	18	26	189	130	25	50	40	175

TABLE 7

DISTRIBUTION OF FARMS BY TYPE WITHIN EACH REGION

Type Group	*W. Dorset*		*N. Dorset*		*Central Dorset*		*S.E. Dorset*		*Total County*	
	No.	%	No.	%	No.	%	No.	%	No.	%
Mainly Dairy	403	59·4	530	54·0	343	49·7	205	30·2	1481	48·9
Dairy with Livestock	186	27·4	268	27·3	102	14·8	164	24·1	720	23·8
Dairy with Crops	19	2·8	27	2·8	60	8·7	51	7·5	157	5·2
Cropping with Dairy	—	—	—	—	12	1·7	6	0·9	18	0·6
Cropping with Livestock	—	—	—	—	13	1·9	5	0·7	18	0·6
Cattle and Sheep	—	—	19	2·0	3	0·4	4	0·6	26	0·9
Livestock	29	4·3	81	8·2	52	7·5	27	3·9	189	6·2
Mixed with Crops	11	1·6	17	1·7	50	7·3	52	7·7	130	4·3
Specialist Pig	5	0·8	10	1·0	—	—	10	1·5	25	0·8
Specialist Poultry	—	—	10	1·0	—	—	40	5·9	50	1·6
Pig and Poultry	5	0·8	5	0·5	5	0·7	25	3·7	40	1·3
Market Gardeners	20	2·9	15	1·5	50	7·3	90	13·3	175	5·8
Total	678	100·0	982	100·0	690	100·0	679	100·0	3029	100·0

TABLE 8

DISTRIBUTION OF FARMS BY SIZE WITHIN EACH REGION
DAIRY FARMS (GROUPS 1, 2 and 3)

Size Group	*W. Dorset*		*N. Dorset*		*Central Dorset*		*S.E. Dorset*		*Total County*	
	No.	%	No.	%	No.	%	No.	%	No.	%
Under 20 acres ..	—	—	30	3·6	20	4·0	15	3·6	65	2·7
20 and under 50 acres	150	24·7	165	20·0	90	17·8	80	19·0	485	20·6
50 ,, ,, 100 ,,	190	31·2	250	30·3	100	19·8	100	23·8	640	27·1
100 ,, ,, 150 ,,	117	19·2	144	17·5	78	15·4	54	12·9	393	16·7
150 ,, ,, 300 ,,	111	18·3	165	20·0	102	20·2	96	22·9	474	20·1
300 ,, ,, 500 ,,	28	4·6	40	4·8	73	14·5	45	10·7	186	7·9
500 acres and over	12	2·0	31	3·8	42	8·3	30	7·1	115	4·9
Total ..	608	100·0	825	100·0	505	100·0	420	100·0	2358	100·0

TABLE 9

DISTRIBUTION OF FARMS BY SIZE OF HERD (MILKING COWS) (a) BY SIZE OF FARM and (b) BY REGION
DAIRY FARMS (GROUPS 1, 2 and 3)

Size Groups	*Milking cows per farm*							*All Farms*
	Under 10 cows	*10 and under 20*	*20 and under 30*	*30 and under 40*	*40 and under 50*	*50 and under 60*	*60 cows and over*	
				Number of Farms				
Under 20 acres	30	35	—	—	—	—	—	65
20 and under 50 acres	130	325	25	5	—	—	—	485
50 ,, ,, 100 ,,	15	320	280	20	5	—	—	640
100 ,, ,, 150 ,,	—	60	189	129	12	—	3	393
150 ,, ,, 300 ,,	3	12	84	180	111	48	36	474
300 ,, ,, 500 ,,	1	4	11	33	29	41	67	186
500 acres and over	—	2	1	5	10	10	87	115
Total	179	758	590	372	167	99	193	2358
W. Dorset	53	240	179	94	24	6	12	608
N. Dorset	40	242	220	151	88	25	59	825
Central Dorset	50	132	101	79	34	37	72	505
S.E. Dorset	36	144	90	48	21	31	50	420
Total	179	758	590	372	167	99	193	2358

TABLE 10

DISTRIBUTION OF FARMS ACCORDING TO THE OUTPUT OF THE DAIRY ENTERPRISE AS A PER CENT. OF TOTAL ESTIMATED FARM OUTPUT

DAIRY FARMS (GROUPS 1, 2 and 3)

Dairy Output as Per Cent. of Total Output	*Farms*	
	Number	*Per Cent.*
95% and over	211	8·9
90% and under 95%	232	9·8
85% „ „ 90%	297	12·6
80% „ „ 85%	428	18·2
75% „ „ 80%	332	14·1
70% „ „ 75%	290	12·3
65% „ „ 70%	224	9·5
60% „ „ 65%	123	5·2
55% „ „ 60%	98	4·2
50% „ „ 55%	123	5·2
Total	2358	100·0

TABLE 11

DISTRIBUTION OF FARMS ACCORDING TO THE NUMBER OF ENTERPRISES PER FARM

DAIRY FARMS (GROUPS 1, 2 and 3)

Number of Enterprises per Farm	*Farms*	
	Number	*Per Cent.*
One	166	7·1
Two	717	30·4
Three	807	34·2
Four	502	21·3
Five	140	5·9
Six and over	26	1·1
	2358	100·0

TABLE 12

DISTRIBUTION OF FARMS BY COMBINATION OF ENTERPRISES WITHIN SIZE GROUPS
DAIRY FARMS (GROUPS 1, 2 and 3)

Combination of Enterprises	*Under* 20 *acres*	20 *and under* 50	50 *and under* 100	100 *and under* 150	150 *and under* 300	300 *and under* 500	500 *and over*	*Total*
				Number of Farms				
Dairy only	—	55	60	27	24	—	—	166
Dairy, Pigs	15	65	35	3	15	—	—	133
Dairy, Poultry	30	165	170	99	24	6	—	494
Dairy, Pigs, Poultry	20	100	150	48	54	6	—	378
Dairy, Pigs, Crops	—	10	10	6	9	8	2	45
Dairy, Poultry, Crops ..	—	50	75	69	63	31	16	304
Dairy, Pigs, Poultry, Crops	—	20	55	72	126	34	13	320
Other Combinations ..	—	20	85	69	159	101	84	518
Total	65	485	640	393	474	186	115	2358

TABLE 13

DISTRIBUTION OF FARMS BY COMBINATION OF ENTERPRISES IN EACH REGION

DAIRY FARMS (GROUPS 1, 2 and 3)

Combination of Enterprises	*W. Dorset*	*N. Dorset*	*Central Dorset*	*S.E. Dorset*	*Total*
			Number of Farms		
Dairy only	47	59	41	19	166
Dairy, Pigs	35	57	10	31	133
Dairy, Poultry	151	203	97	43	494
Dairy, Pigs, Poultry	50	166	73	90	379
Dairy, Pigs, Crops	11	11	20	2	44
Dairy, Poultry, Crops	91	71	64	78	304
Dairy, Pigs, Poultry, Crops	89	95	64	72	320
Other Combinations	134	163	136	85	518
Total	608	825	505	420	2358

TABLE 14

AVERAGE CROPPING AND STOCKING PER 100 ACRES BY SIZE GROUP
DAIRY FARMS (GROUPS 1, 2 and 3)

	Under 20 *acres*	20 *and under* 50	50 *and under* 100	100 *and under* 150	150 *and under* 300	300 *and under* 500	500 *and over*	*All Farms*
Wheat	—	1·5	1·7	2·5	3·1	4·4	5·1	3·4
Barley	—	0·8	1·0	1·2	3·1	4·8	8·9	4·1
Oats and Mixed Corn ..	—	3·4	3·9	5·3	6·5	7·5	6·9	6·2
Potatoes and Sugar Beet ..	0·5	0·4	0·3	0·4	0·5	0·4	0·7	0·5
Fodder Roots and Brassicae	4·2	4·8	3·8	3·5	4·3	5·0	5·1	4·5
Other Crops	11·7	2·0	1·3	1·1	1·7	2·1	2·5	1·9
Tillage	16·4	12·9	12·0	14·0	19·2	24·2	29·2	20·6
Tem. Grass —Mowing ..	2·0	4·3	6·0	6·2	9·1	9·7	13·0	9·1
Grazed ..	—	2·0	2·4	2·3	5·2	5·2	8·5	5·1
Per. Grass —Mowing ..	21·5	34·4	35·2	30·8	24·7	17·4	9·2	22·2
Grazed ..	59·0	42·8	39·2	40·5	34·1	29·9	22·6	32·6
Orchard	1·0	0·6	1·2	0·4	0·3	0·2	0·1	0·4
Rough Grazing	—	3·0	4·0	5·7	7·4	13·3	17·4	10·0
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
Cows	69·0	34·2	27·0	21·9	19·3	14·6	11·2	18·7
Bulls	1·0	0·4	0·6	0·6	0·7	0·5	0·5	0·5
Heifers in Calf	2·5	3·6	3·2	3·0	3·7	4·0	3·5	3·6
Stores over 1 year—Male ..	—	0·3	0·5	0·3	0·4	0·9	0·9	0·6
Female	3·6	5·1	5·5	6·5	7·2	6·3	5·8	6·3
Stores under 1 year—Male ..	0·5	0·4	0·6	0·3	0·5	0·7	1·0	0·6
Female	14·8	5·6	6·0	5·8	5·2	4·9	4·2	5·1
Total Cattle ..	91·4	49·6	43·4	38·4	36·9	31·9	27·1	35·4
Breeding Pigs	6·6	1·5	1·6	0·9	1·0	0·8	0·5	0·9
Total Pigs	45·5	12·0	9·7	6·7	6·6	4·0	2·7	5·9
Breeding Sheep	—	0·1	1·2	0·9	1·3	4·0	5·6	2·7
Total Sheep	—	0·4	2·1	2·1	3·3	10·4	13·3	6·5
Work Horses	4·6	0·8	0·7	0·5	0·3	0·3	0·2	0·4
Fowls over 6 months ..	458·2	147·0	99·1	83·7	49·9	34·7	24·2	57·4
Total Poultry	1033·5	271·1	187·1	169·3	99·7	71·0	51·8	114·0

TABLE 15

AVERAGE CROPPING AND STOCKING PER 100 ACRES BY REGION
DAIRY FARMS (GROUPS 1, 2 and 3)

	W. Dorset	*N. Dorset*	*Central Dorset*	*S.E. Dorset*	*All Farms*
Wheat	2·6	2·9	4·2	4·3	3·4
Barley	1·6	2·8	6·3	5·7	4·1
Oats and Mixed Corn	4·8	4·7	7·0	8·5	6·2
Potatoes and Sugar Beet	0·3	0·3	0·3	1·0	0·5
Fodder Roots and Brassicae	4·1	2·9	5·1	6·2	4·5
Other Crops	1·6	1·4	2·5	2·1	1·9
Temporary Grass —Tillage	15·0	15·0	25·4	27·8	20·6
Mowing	5·0	7·3	10·1	14·3	9·1
Grazing	2·8	3·6	5·8	8·3	5·1
Permanent Grass—Mowing	27·1	31·2	18·0	10·5	22·2
Grazing	39·2	37·4	29·1	23·9	32·6
Orchard	1·0	0·4	—	0·1	0·4
Rough Grazing	9·8	5·1	11·5	15·1	10·0
Total Acreage	100·0	100·0	100·0	100·0	100·0
Cows	18·8	21·8	16·8	16·4	18·7
Bulls	0·6	0·6	0·5	0·6	0·5
Heifers in calf	3·4	3·4	3·8	3·6	3·6
Stores over 1 year —Male	0·5	0·7	0·8	0·3	0·6
Female	6·4	6·7	6·2	5·5	6·3
Stores under 1 year—Male	0·8	0·7	0·6	0·4	0·6
Female	5·3	5·2	5·1	4·9	5·1
Total Cattle	35·8	39·1	33·8	31·7	35·4
Breeding Pigs	1·2	1·0	0·6	1·0	0·9
Total Pigs	6·2	8·3	3·7	5·3	5·9
Breeding Sheep	3·7	1·9	2·5	3·0	2·7
Total Sheep	9·4	4·6	6·0	7·3	6·5
Work Horses	0·6	0·4	0·2	0·3	0·4
Fowls over 6 months	67·0	67·5	41·8	53·9	57·4
Total Poultry	132·9	136·3	82·1	105·0	114·0

TABLE 16 AVERAGE CROPPING AND STOCKING PER 100 ACRES (GROUPS 8, 9, 10, 11 and 12)

	Cattle and Sheep	*Mixed Livestock*	*Cropping with Dairy*	*Cropping with Livestock*	*Mixed with Crops*
Wheat	0·6	3·3	13·0	11·6	10·0
Barley	—	6·8	22·2	32·0	14·6
Oats and Mixed Corn	2·7	7·4	6·6	6·0	7·7
Potatoes and Sugar Beet	0·1	0·3	3·6	0·9	1·3
Fodder Roots and Brassicae	0·3	3·7	5·2	4·9	7·0
Other Crops	0·1	2·3	2·7	6·8	3·7
Total Tillage	3·8	23·8	53·3	62·2	44·3
Temporary Grass —Mowing	1·0	10·0	13·2	8·8	15·1
Grazing	0·7	4·9	6·9	12·8	10·1
Permanent Grass —Mowing	12·0	15·5	8·8	2·5	4·6
Grazing	66·1	32·6	11·2	8·8	17·1
Orchard	0·2	0·2	0·1	0·2	0·2
Rough Grazing	16·2	13·0	6·5	4·7	8·6
Total Acreage	100·0	100·0	100·0	100·0	100·0
Cows	1·7	16·1	6·5	0·3	7·4
Bulls	0·2	0·3	0·4	0·2	0·3
Heifers in Calf	7·2	3·6	2·1	1·7	2·4
Stores over 1 year —male	2·3	1·3	1·6	3·3	3·7
female	39·7	9·0	2·8	6·2	5·2
Stores under 1 year—male	0·9	1·3	1·0	0·7	1·7
female	5·5	6·1	2·8	0·9	3·6
Total Cattle	57·5	37·7	17·2	13·3	24·3
Breeding Pigs	0·1	10·8	0·3	1·4	1·8
Total Pigs	1·9	73·3	1·1	4·3	9·7
Breeding Sheep	—	2·0	2·7	1·6	13·1
Total Sheep	1·6	12·2	7·2	4·9	31·9
Work Horses	—	0·2	0·2	0·1	0·2
Fowls over 6 months	6·4	250·5	13·9	8·0	85·8
Total Poultry	13·0	682·1	22·8	36·8	245·4

TABLE 17

DISTRIBUTION OF 3029 FULL-TIME FARMS ACCORDING TO THE ACREAGE PER FARM OF (a) WHEAT (b) BARLEY (c) OATS AND MIXED CORN

Acreage per Farm	*Wheat*	*Barley*	*Oats and Mixed Corn*
		Number of Farms	
Nil*	1841	2148	1479
1— 2 acres	128	57	91
3— 4 ,,	203	134	200
5— 9 ,,	317	192	363
10— 14 ,,	151	107	271
15— 24 ,,	169	103	252
25— 49 ,,	131	121	246
50— 99 ,,	63	97	116
100—199 ,,	23	52	10
200 acres and over	3	18	1
Total Farms	3029	3029	3029

* Less than 1 acre.

TABLE 18

DISTRIBUTION OF 3029 FULL-TIME FARMS ACCORDING TO THE NUMBER PER FARM OF (a) BREEDING PIGS (b) TOTAL PIGS

Size of Herd	*Breeding Pigs*	*Total Pigs*
	Number of Farms	
Nil	1933	1364
1— 2	406	176
3— 4	271	191
5— 9	252	323
10— 14	74	279
15— 24	53	228
25— 49	29	261
50— 99	6	115
100—199	5	69
200 and over	—	23
Total Farms	3029	3029

TABLE 19

DISTRIBUTION OF 3029 FULL-TIME FARMS ACCORDING TO THE NUMBER PER FARM OF (a) BREEDING SHEEP (b) TOTAL SHEEP

Size of Flock	*Breeding Sheep*	*Total Sheep*
	Number of Farms	
Nil	2832	2796
1— 9	28	28
10— 24	10	16
25— 49	48	14
50— 99	41	61
100—199	50	34
200—299	11	23
300—499	8	36
500 and over	1	21
Total Farms	3029	3029

TABLE 20

DISTRIBUTION OF 3029 FULL-TIME FARMS ACCORDING TO THE NUMBER OF POULTRY PER FARM

Number of Fowls (6 mths. and over) per farm	*No. of Farms*
Nil	347
1— 9	54
10— 24	363
25— 49	483
50— 99	695
100—199	611
200—299	216
300—499	169
500+	91
Total	3029

TABLE 21

DISTRIBUTION OF 3029 FULL-TIME FARMS ACCORDING TO THE NUMBER OF REGULAR WORKERS PER FARM

Number of Regular Male Workers (over 21) per farm	*No. of Farms*
Nil	990
One	763
Two	530
Three	218
Four	157
Five to Nine	277
Ten and over	94
Total	3029

APPENDIX IB.

SOME TYPICAL FARM BUSINESSES

This section gives a brief description of three individual farms in the county which are considered to be typical of the three dairy groups outlined in this report. A more detailed picture of these farms may give the reader a better appreciation of the characteristics of the agriculture of Dorset. The farms have been called A, B and C and the picture given in each case is based on actual records as far as possible. The three types portrayed are as follows:—

1. **Farm A.** Small grass dairy farm (Group I Mainly Dairy).
2. **Farm B.** Larger dairy farm with some tillage (Group II Dairy with Livestock).
3. **Farm C.** Large mixed with cash crop farm on the chalk (Group III Dairy with Crops).

FARM A.

SMALL GRASS DAIRY FARM (GROUP 1 MAINLY DAIRY)

This is a farm of 45 acres situated on the belt of Kimmeridge Clay which runs through part of the Blackmore Vale. The land is flat at an average altitude of 200 feet and the soil is heavy clay. Farm layout is good except for one field, so that the farmhouse and buildings are centrally situated. The farmhouse is adequate and in good condition and the farm buildings, including a shippon, dairy, pigsties, general barn and implement shed have recently been modernized. Mains electric light and water are available. The tenant farmer is about 40 years of age and runs the farm single-handed with some help from his wife. Details of the land use, livestock, labour and machinery are shown below.

Land	*Livestock*	*Labour*
15 acres of grass for hay	12 Milking Cows	The Farmer
12 acres of grass for silage	2 Heifers in Calf	*Main Items of Machinery*
18 acres of grazing	2 Heifers (1—2 years)	1 Tractor
	3 Heifers (Under 1 year)	Buckrake
45 acres	8 Fattening Pigs	Plough
	20 Poultry	Cultivating Equipment
		Milking Machine

All the land is under permanent pasture, and silage and hay are made each year. Drainage is one of the main problems in this district and the land is so wet in winter that the pastures cannot be stocked without risk of "poaching" and serious damage. This means that the stock have to be housed in winter creating a demand for buildings for young stock. Some of the fields need re-seeding at the present time because the wrong type of grasses prevail, and the usual practice is to direct re-seed when conditions are most favourable.

Usually about 15 acres are mown for hay each year and silage is made from a further 12 acres in the early summer. The silage is made with a tractor and buckrake—the farmer co-operating with neighbouring farmers to form a two or three-man gang. The hay is baled by a con-

tractor to save labour. An electric fence is used in the grassland management programme and fields are top-dressed each spring and have a second dressing after taking a silage cut.

The dairy herd is comprised of 12—13 cows of mixed breeds of mainly Friesian type with 6—8 followers. Artificial insemination by a Friesian bull is the general policy but some cows are inseminated by a beef bull. The farmer likes to rear all heifer calves if possible, but the shortage of buildings in the winter limits this. Indeed, the farmer maintains that if he could be sure of securing good quality cows for £90 or £100 in the open market he would dispense with rearing and keep a flying herd—thereby increasing his output of milk. Because he feels that buying cows in the market is a risky business, some replacements are home-bred and some purchased. The herd is now attested and the average yield is 750 gallons per cow.

The milking cows are not usually turned out in the spring until the first week in May. Silage feeding starts in November. Hay and silage are fed for maintenance and 1 gallon for as long as the silage lasts and then hay plus beet pulp and grain-balancer for maintenance and the first two gallons. Purchased dairy cake is fed for all yields over this. Usually a couple of breeding sows are kept as a sideline enterprise and a few poultry largely for domestic purposes.

The buildings are in a fairly good state and the shippon holds 18 milking cows. The farmer's aim is to increase the milking herd to this figure when the capital is available and when the grassland can be made more productive. Only then will capital be spared to develop the subsidiary enterprises of pigs and poultry.

Finally, the main items of output and costs at the present time can be listed as follows:—

Output	*Per Farm* £	*Per Acre* £	*Main Costs*	*Per Farm* £	*Per Acre* £
Milk	1705	37·9	Rent and Rates	170	3·8
Pigs	165	3·7	Power Costs	240	5·3
Cattle	120	2·6	Feedingstuffs	740	16·4
Poultry	35	0·8	Seeds	—	—
			Manures	110	2·4
Total	2025	45·0	Casual Labour	25	0·6
			Contract	30	0·7

FARM B.

A LARGER DAIRY FARM WITH SOME TILLAGE (GROUP 2 DAIRY WITH LIVESTOCK)

This is a farm of 170 acres on land where heavy clays are mixed with stone brash soils. The farm is run by a tenant farmer and a hired labour force of a full-time man and a boy. The farmstead and buildings are situated at one end of the land but in spite of this most of the fields are readily accessible. No cash crops are grown but about 40 acres of tillage provide home-grown feed for the livestock enterprises. A Friesian herd and followers is the main enterprise, followed by a small flock of breeding ewes, a small pig breeding unit and a substantial flock of laying

poultry. The land use, livestock, labour and machinery at the present time can be detailed as follows:—

Land	*Livestock*	*Labour*
5 acres Wheat	30 Milking Cows	Farmer
20 „ Mixed Corn	7 Heifers in Calf	1 Man
10 „ Kale	16 Stores over 1 year	1 Boy
40 „ Temp. Mowing	14 Stores under 1 year	*Main Items of Machinery*
30 „ Perm. „	15—20 Breeding Ewes	2 Diesel Tractors
25 „ Temp. Grazing	3 Sows	1 Pick-up Baler
40 „ Perm. „	30 Store Pigs	Milking Machine
—	450 Poultry	Binder
170 acres		Cultivating Equipment
—		

The farm buildings have been modernized in recent years and are now in a good state of repair. The shippon is large enough for a small expansion of the herd and the piggeries could accommodate larger numbers of fattening pigs. The problem as far as buildings is concerned is the housing of young cattle. A similar problem exists as on Farm A in that drainage is the over-riding issue on most of the wet land and the consequent need to keep stock off in the winter months. Some drier land is available on this farm, but a good open yard to accommodate 15 to 20 young cattle could be extremely useful.

The equipment on the farm includes two diesel tractors and a baler. No silage is made but usually 70 acres of grass are mown and about 100 tons of hay are baled as the main winter fodder. Some of the corn is combined by a contractor. All home-grown cereals are used for feed and the kale makes a valuable contribution to the winter feed for the dairy cattle. This is usually cut and carted but some times it is grazed off with the aid of an electric fence if the weather will allow. The dairy herd is T.T. Attested and the average yield per cow is roughly 700 gallons.

Finally, the main items of output and cost at the present time can be listed as follows:—

Output	*Per Farm* £	*Per Acre* £	*Main Costs*	*Per Farm* £	*Per Acre* £
Milk	2800	16·5	Labour	750	4·4
Cattle	730	4·3	Rent and Rates	350	2·1
Poultry	1350	7·9	Power Costs	350	2·1
Pigs	520	3·0	Feedingstuffs	2350	13·8
Sheep	130	0·8	Seeds	125	0·7
Grants and Sundry	340	2·0	Manures	275	1·6
			Contract	70	0·4
Total	5870	34·5			

FARM C.

A LARGE DAIRY WITH CASH CROP FARM (GROUP 3 DAIRY WITH CROPS)

This is a large farm of 650 acres situated on the chalk downs in the central part of the county. It is impossible in a few short notes to give a detailed picture of this farm, so that this description is intended to give a list of the main farm resources and a few comments on the farm organization. The land use, livestock carry, labour and main items of machinery are set out below:—

Land	*Livestock*	*Labour*
acres	100 Milking Cows	Farmer
32 Wheat	3 Bulls	10 Men
91 Barley	33 Heifers in Calf	2 Boys
52 Oats and Mixed Corn	35 Stores over 1 year	*Main Items of Machinery*
26 Mangolds, Turnips, etc.	40 Stores under 1 year	5 Tractors
20 Kale	—	1 Combine
—	211	2 Balers
221 Tillage	—	Grain Dryer
58 Temp. Grass for Silage	250 Breeding Ewes	2 Motor Lorries
65 Temp. Grass for Hay	5 Rams	Cultivating Equipment
26 Perm. Grass for Hay	50 Store Pigs	Milking Parlours
91 Temp. Grazing	500—600 Laying Hens	
189 Perm. Grazing		
—		
650 acres		
—		

The land varies from good loam soils in the valleys to poorer chalk soils on the more exposed parts of the downs. Nevertheless, a third of the land is under tillage and a high proportion of the grassland is temporary ley. Barley and wheat are the main cash crops with the emphasis on the former. Both silage and hay are made, and together with a fair acreage of kale these products form the basis of the winter feed supply for cattle and sheep.

The dairy herd is the main livestock enterprise and all young stock are home-reared. The majority of the dairy cows are milked under the yard and parlour system. A pure dairy breed is kept. The large flock of breeding ewes is an important enterprise on this farm. The sale of draft breeding ewes and young ram lambs together with the sales of fat lamb and wool make a substantial contribution to the output of the farm. A large poultry enterprise is also present.

The problems of this type of farm are very different from those on Farms A and B. Here, there is a little question of the operator having insufficient land and other resources to make an adequate living for himself and his family once the farm is a going concern. Rather, the main problems are of a technical and managerial nature if the best use is to be made of all the resources available. There is great scope for mechanization on such a farm as this and there are other advantages in large scale production.

The level of output achieved and the main costs incurred per acre in recent years are shown below:—

Output	*Per Acre*	*Main Costs*	*Per Acre*
Milk	18·8	Rent and Rates	2·1
Cattle	2·0	Labour	10·6
Cash Crops	6·8	Power Costs	5·1
Sheep and Wool	4·4	Feedingstuffs	4·2
Poultry and Eggs	3·2	Seeds	1·1
Pigs	2·2	Manures	2·6
Sundry	1·8		
Total	39·2		

APPENDIX IC

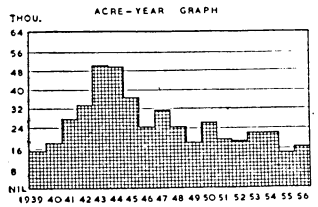
MAPS OF THE COUNTY OF DORSET

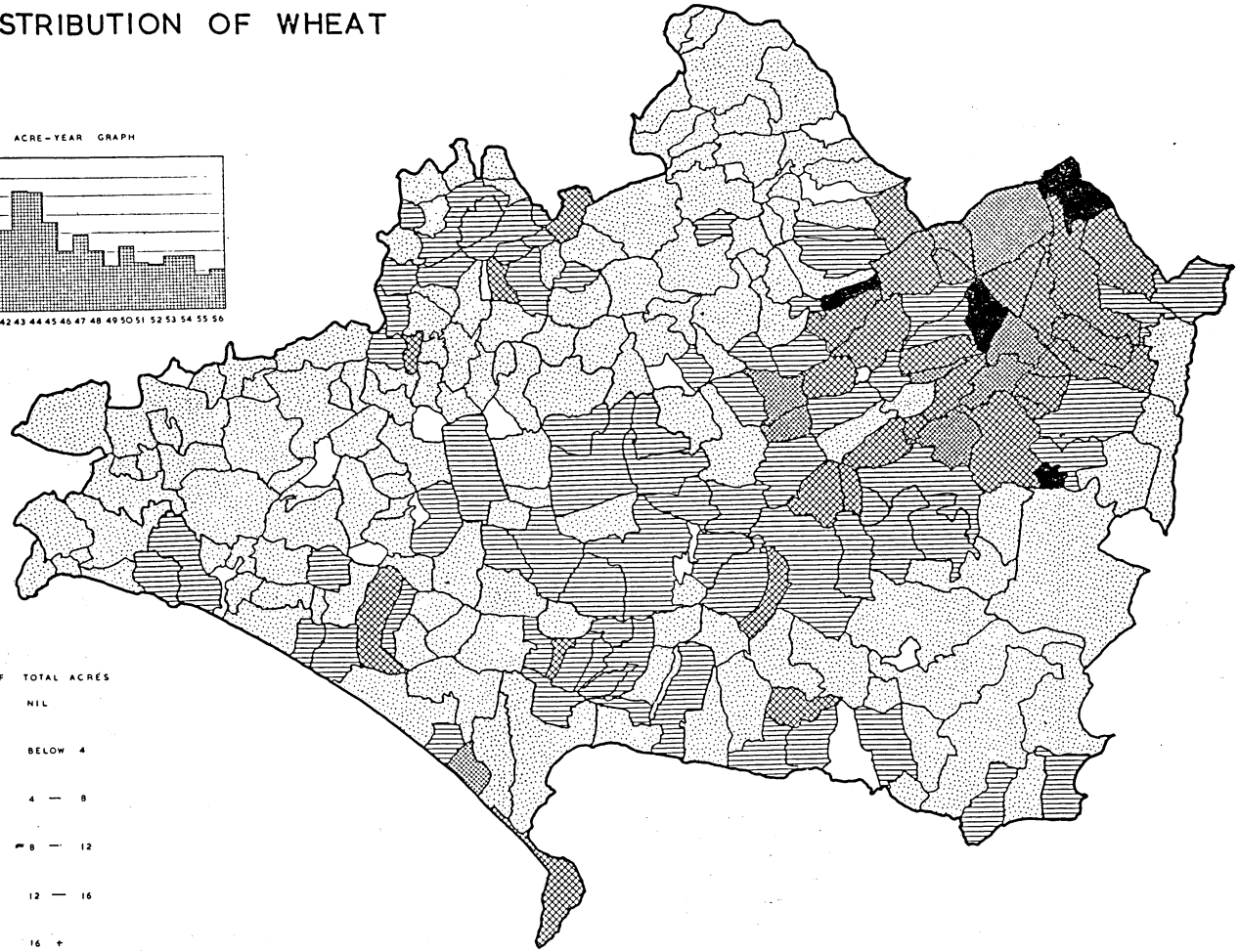
The maps on the following pages show the distribution of crops and livestock in Dorset. They are prepared on a parish basis, and illustrate some of the differences between the various regions of the county in land use and density of stocking with the main classes of livestock.

The eight maps are reproduced in the order listed below:—

1. Distribution of Wheat
2. „ „ Barley
3. „ „ Oats and Mixed Corn
4. „ „ Permanent Grass (including rough grazing)
5. „ „ Cows (cows and heifers in milk and cows in calf but not in milk)
6. „ „ Total Sheep
7. „ „ Total Pigs
8. „ „ Total Poultry

1. DISTRIBUTION OF WHEAT



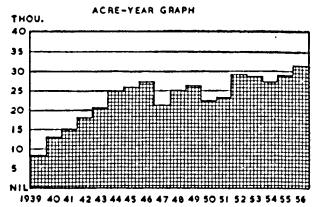


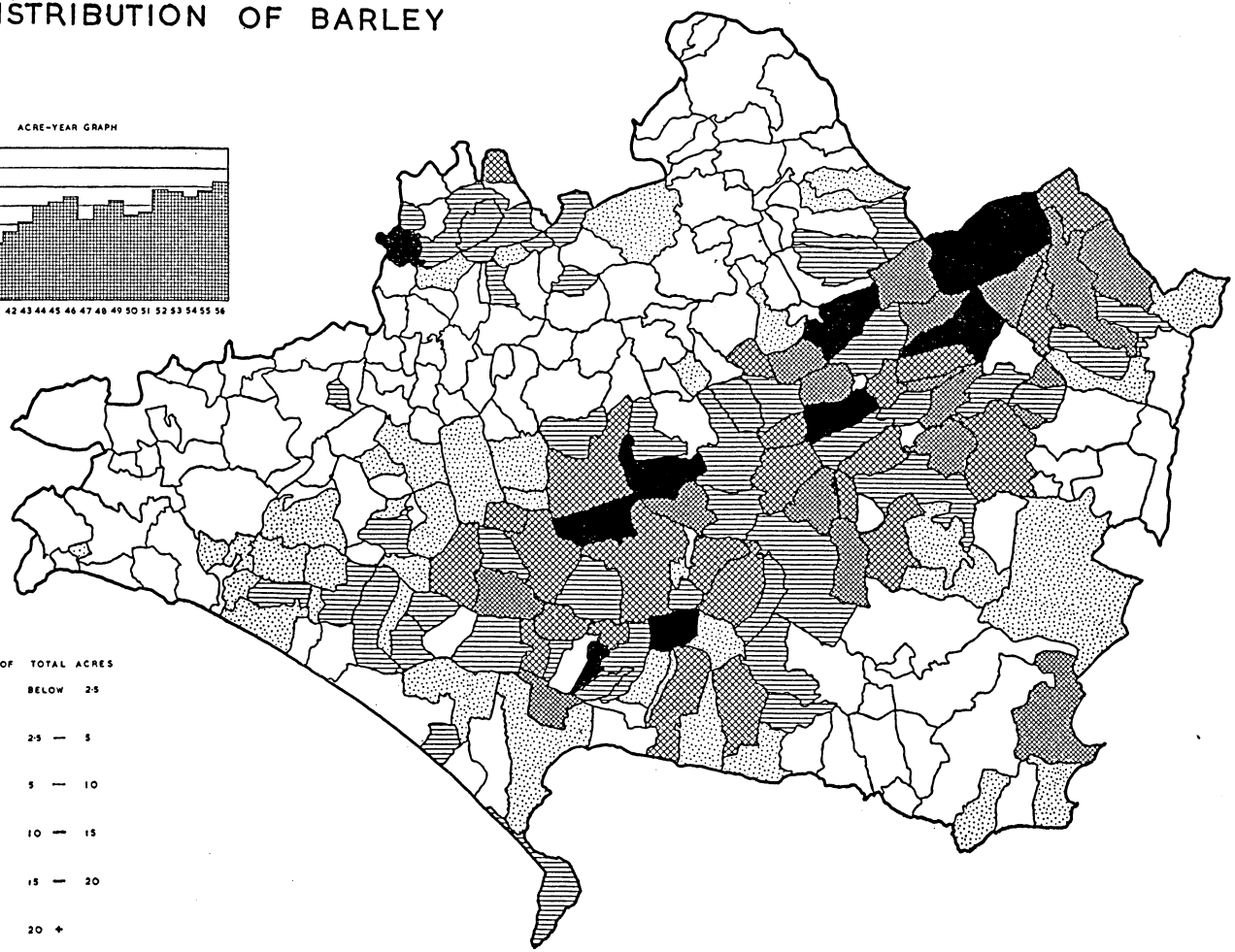
KEY

PERCENT OF TOTAL ACRES

- NIL
- BELOW 4
- 4 — 8
- 8 — 12
- 12 — 16
- 16 +

2. DISTRIBUTION OF BARLEY



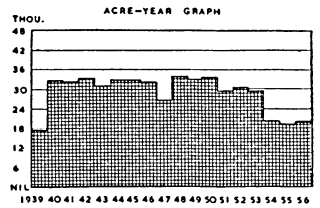


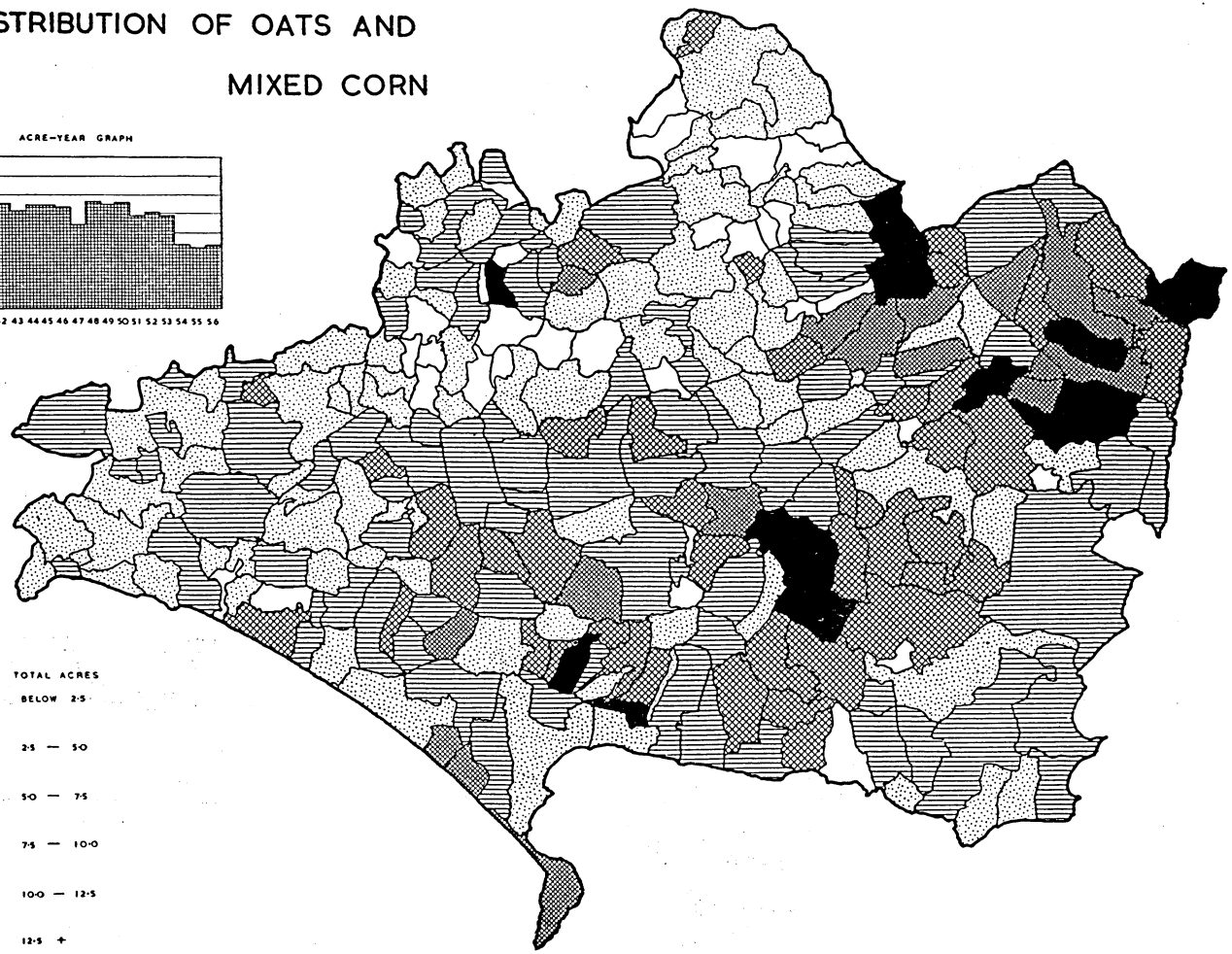
KEY

PERCENT OF TOTAL ACRES

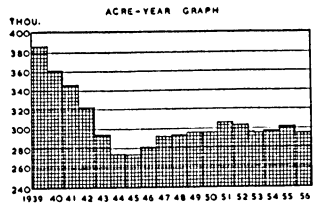
- BELOW 2·5
- 2·5 — 5
- 5 — 10
- 10 — 15
- 15 — 20
- 20 +

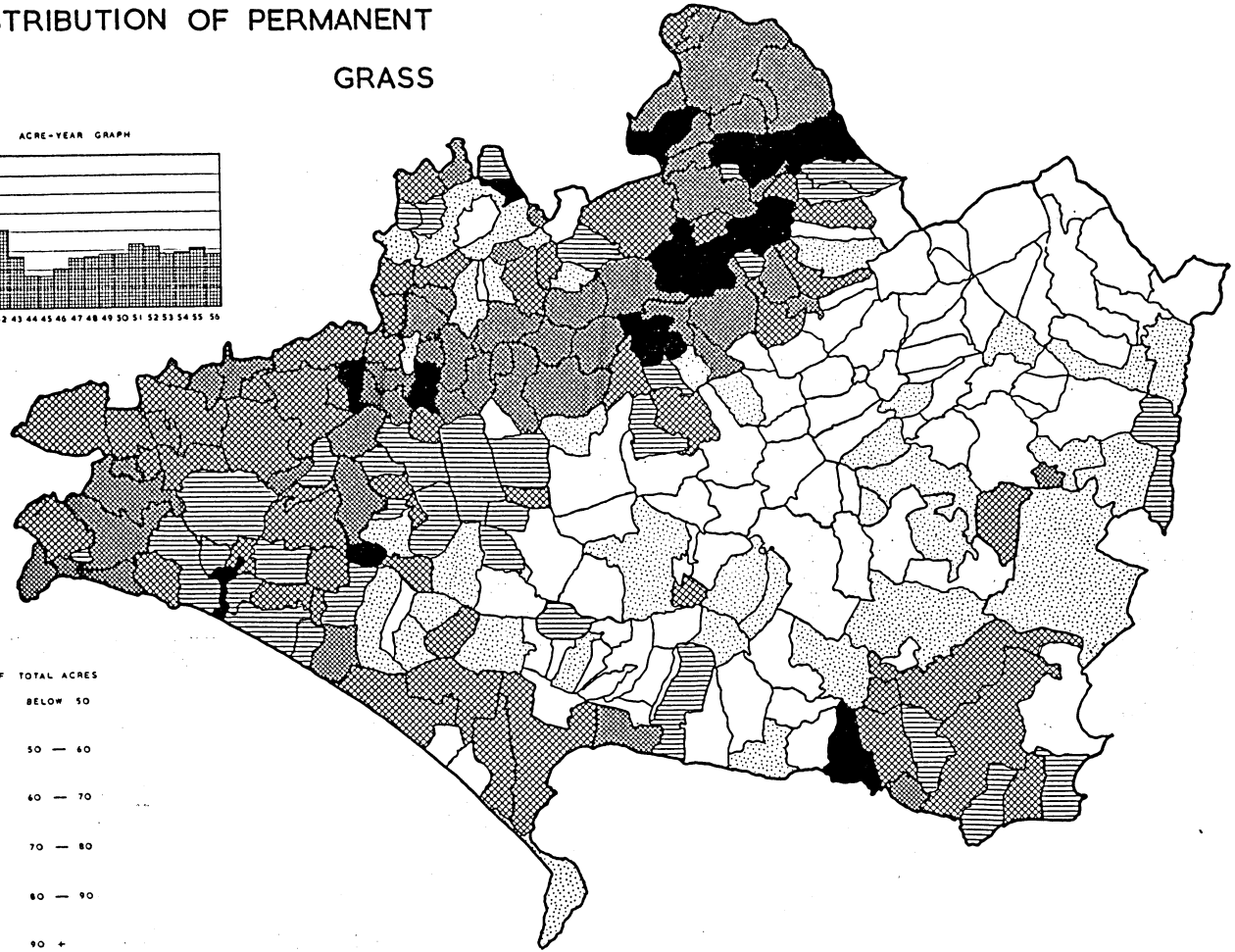
3. DISTRIBUTION OF OATS AND MIXED CORN



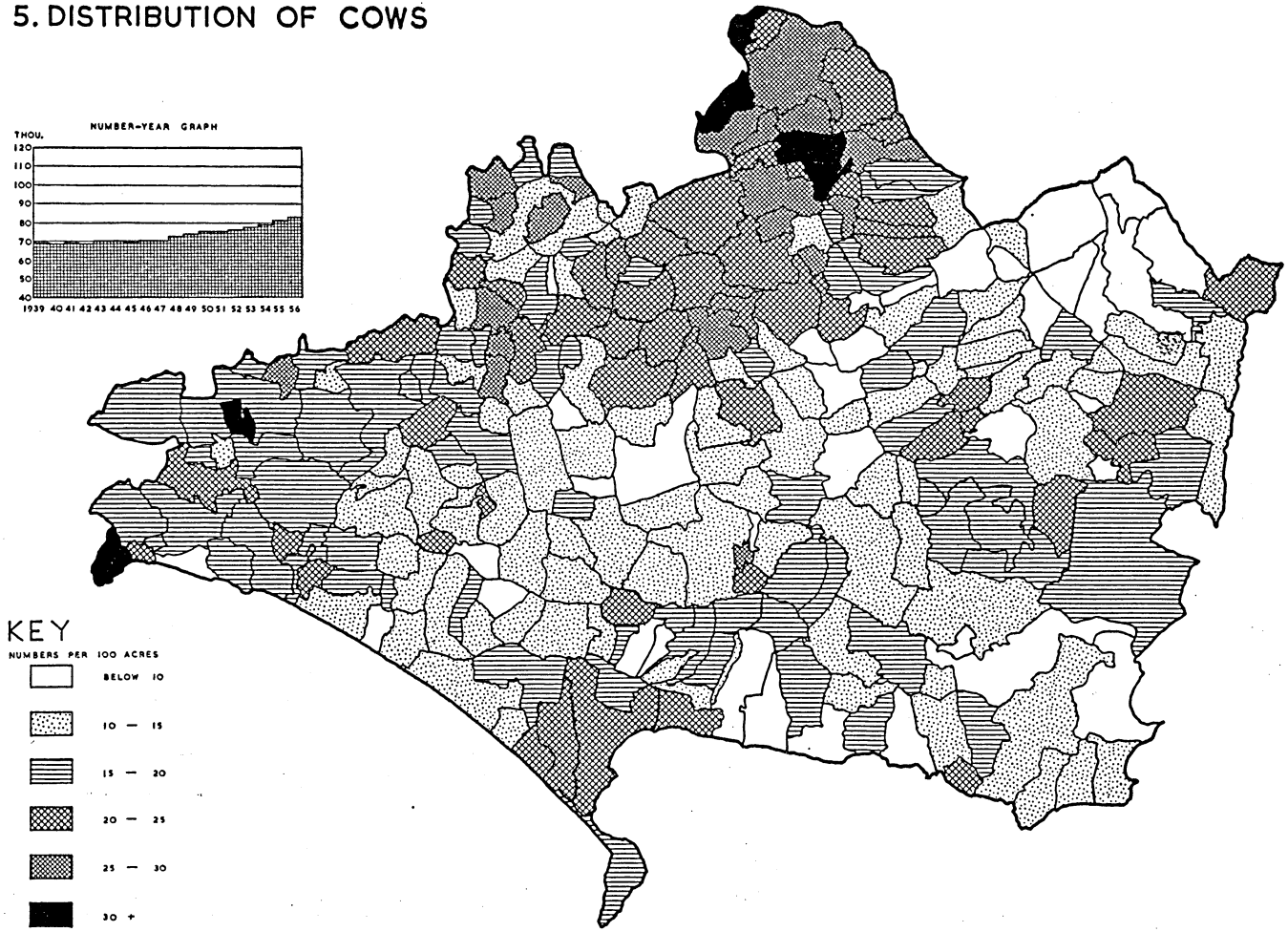


4. DISTRIBUTION OF PERMANENT GRASS

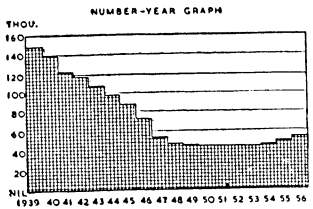


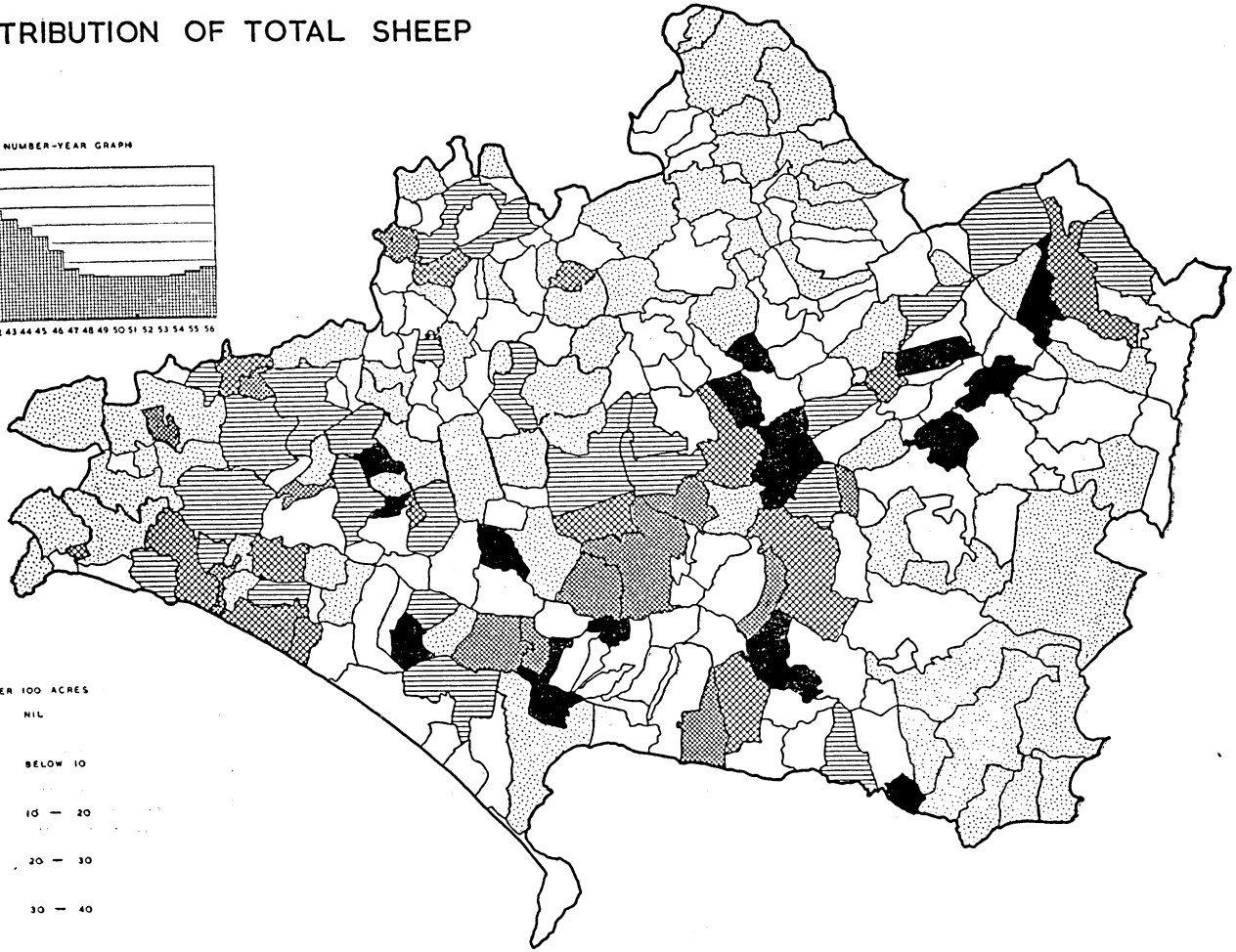


5. DISTRIBUTION OF COWS



6. DISTRIBUTION OF TOTAL SHEEP



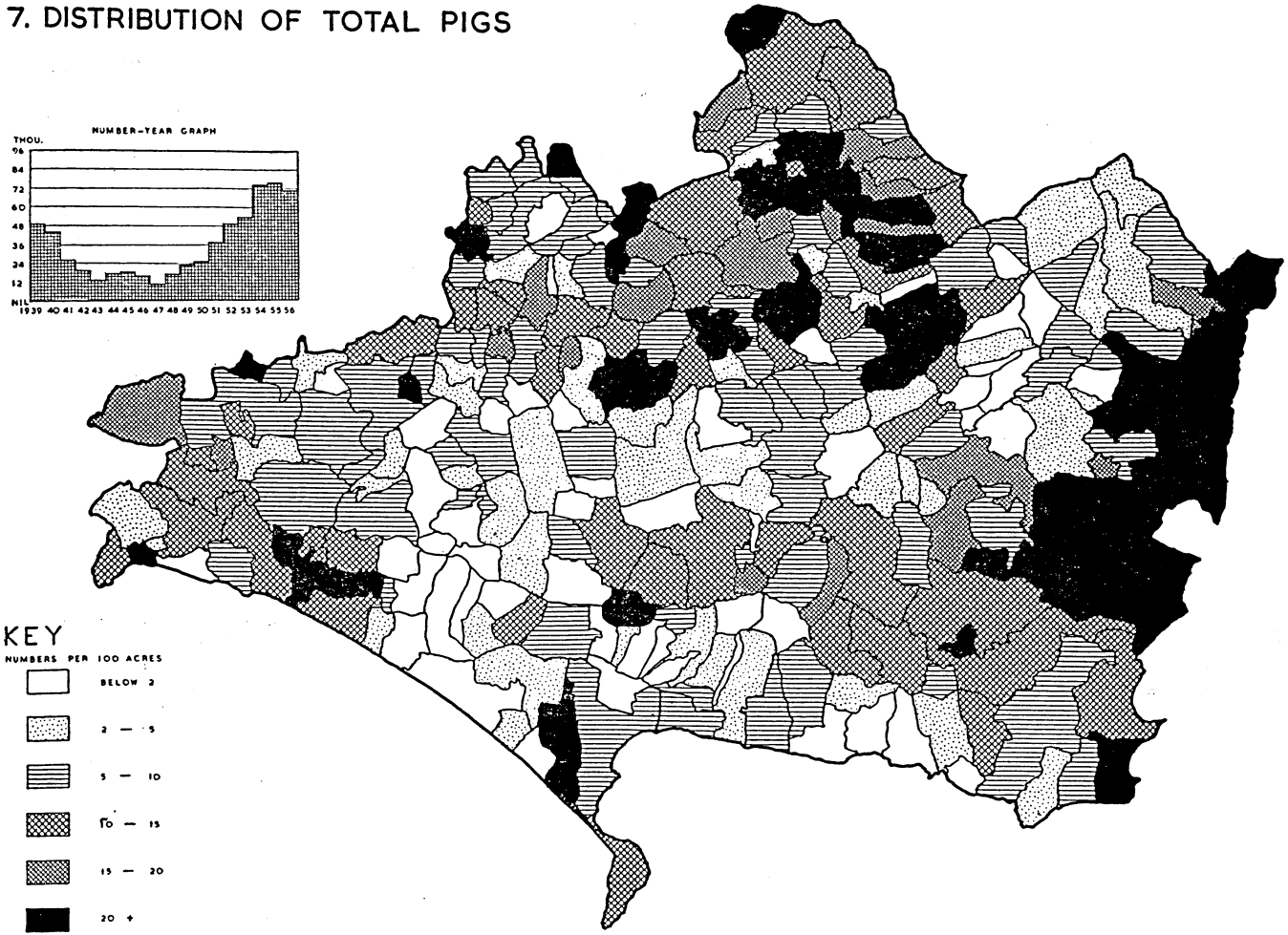


KEY

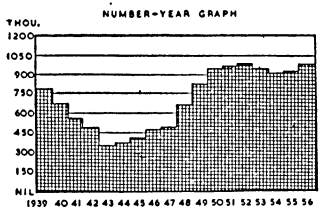
NUMBERS PER 100 ACRES

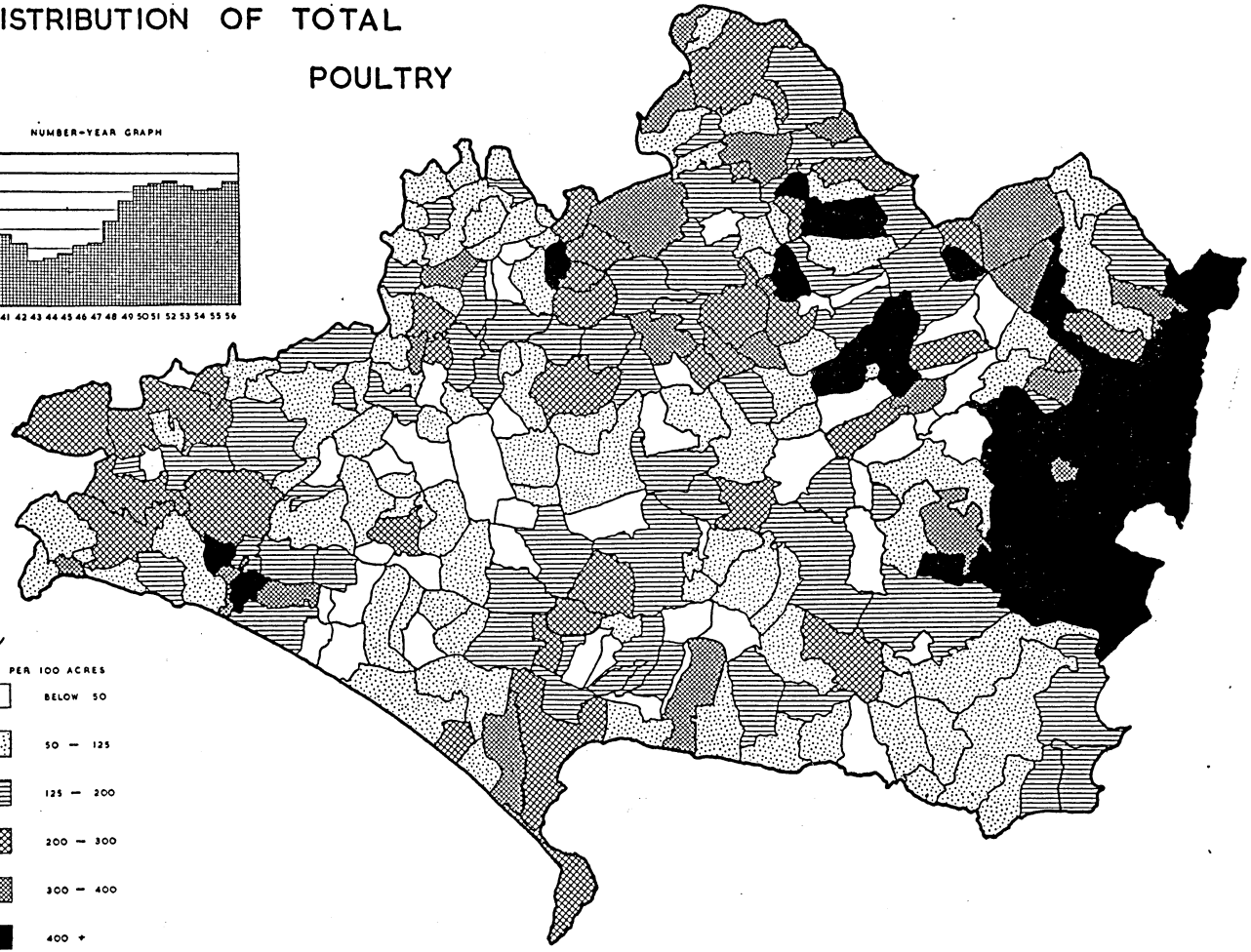
- NIL
- BELOW 10
- 10 — 20
- 20 — 30
- 30 — 40
- 40 +

7. DISTRIBUTION OF TOTAL PIGS



8. DISTRIBUTION OF TOTAL POULTRY





APPENDIX II

NOTES ON PROCEDURE

Sampling

The actual working of the classification was carried out on a sample of the 5,265 farm cards in the county, in order to cut down the magnitude of the work involved. No statistical measures were applied to calculate the smallest possible sample needed to give satisfactory results. Instead, a stratified sample by size was adopted in which no acreage group had less than 150 units. Accordingly, for groups up to 100 acres, a 1 in 5 sample was taken, and a 1 in 3 sample for units of 100 to 300 acres in size. All units over 300 acres were included. These sampling fractions are set out in the following table which shows that there are 1,489 units in the total sample, giving roughly a 1 in 3 overall representation.

SIZE GROUPS AND SAMPLING FRACTIONS

Size Group	*Total Agricultural Units (Cards)*	*Sampling Fraction*	*Sample*	*Sample raised again*
Under 5 acres	1205	1 in 5	241	1205
5 and under 20 acres	999	1 in 5	200	1000
20 ,, ,, 50 ,,	739	1 in 5	148	740
50 ,, ,, 100 ,,	797	1 in 5	159	795
100 ,, ,, 150 ,,	439	1 in 3	146	438
150 ,, ,, 300 ,,	563	1 in 3	188	564
300 ,, ,, 500 ,,	229	All	229	229
500 ,, ,, 700 ,,	92	All	92	92
700 ,, ,, 1000 ,,	63	All	63	63
1000 acres and over	23	All	23	23
Total ..	5149	—	1489	5149

Standards

The schedules of standards for average labour requirements used in sorting out the full-time units from other units, and the output standards used in the type of farm grouping, are largely based on published data from "The Farm as a Business,"* and farm management survey data relating to the South West in the Department of Economics.

Sorting into Full-Time and other Units

A schedule of average labour requirements per acre and per head of livestock was drawn up as the first step. A calculation was then made on each farm card showing the number of man hours of work required per annum by the crops and livestock shown. The cards were then sorted into the three classes on the following basis:—

	Man Hours per Annum
Full-time Units	1,800 or more
Part-time Units	600—1,800
Spare-time and other Units	Less than 600

* The Farm as a Business. A Handbook of Standards and Statistics. Ministry of Agriculture. H.M.S.O., 1955-57.

The lower limit of 1,800 hours was deliberately set rather low, in order that anything resembling "a farm" may be classed as a full-time unit. It may also be mentioned that the calculation of man hours had only to be made on the smaller units in practice. Many of the large units could be classed as full-time farms with the minimum of calculation.

Type of Farm Sorting

A schedule of financial standards for the output per acre of the various sale crops and per animal unit for each class of livestock was obtained from Farm Management Survey and other enterprise cost data. These standards were then applied to the appropriate crops and livestock on each holding, to give an indication of the value of the output from crops, dairy cattle, beef cattle, sheep, pigs and poultry from each holding under average conditions and with average management and practices. The total outputs were added on each card to give the estimated total farm output and then each enterprise was expressed as a percentage of this total farm output figure. Sorting was then carried out according to the relative importance of the different enterprises on each individual farm.

The diagram following page 51 shows how the farms were divided into twelve type groups. In general, if farms had more than 50% of their total output from any one particular enterprise they assumed the name of that enterprise. For example, the first sort was to take out all farms with more than half their output from dairying. These became known as dairy farms but as it was such a large group they were sub-divided into three dairy groups as shown on the left-hand side of the diagram. If they had 75% or more of their estimated total farm output from dairying they were known as **Mainly Dairy** (Group 1). The farms with 50—75% from dairy were known as either (i) **Dairy with Livestock** (Group 2), if they had less than 20% of their output from crops, or (ii) **Dairy with Crops** (Group 3) if they had more than 20% of their output from crops.

On the other side of the diagram are placed the non-dairy farms with less than 50% from dairying. Here there are farms with more than 50% of their output from other enterprises. In the first instance farms with more than 50% of their output from pigs were separated out. The large majority of these were found to be the more **Specialist Pig** (Group 4) farms with more than 75% of their output from this enterprise. Therefore a specialist group was made at this stage with 75% as the lowest limit. Farms with between 50% and 75% of their output from pigs went into the **Pig and Poultry** group (Group 6) if 80% or more of their output came from pigs and poultry combined or they were channelled into the livestock group below, which contained farms with mixed livestock enterprises. The same procedure was carried out with the poultry farms to arrive at the **Specialist Poultry** farms (Group 5).

At this stage all farms with 50% or more of their output from crops were separated. The small intensively operated units on which most of the output was shown to be from, vegetables, flowers and other market garden produce, were readily distinguishable from the cropping farms. However, like the other specialist groups above, the line of demarcation was 75% or more from these products to qualify as a **Market Garden** holding (Group 7). The remaining farms were allocated to the **Cropping**

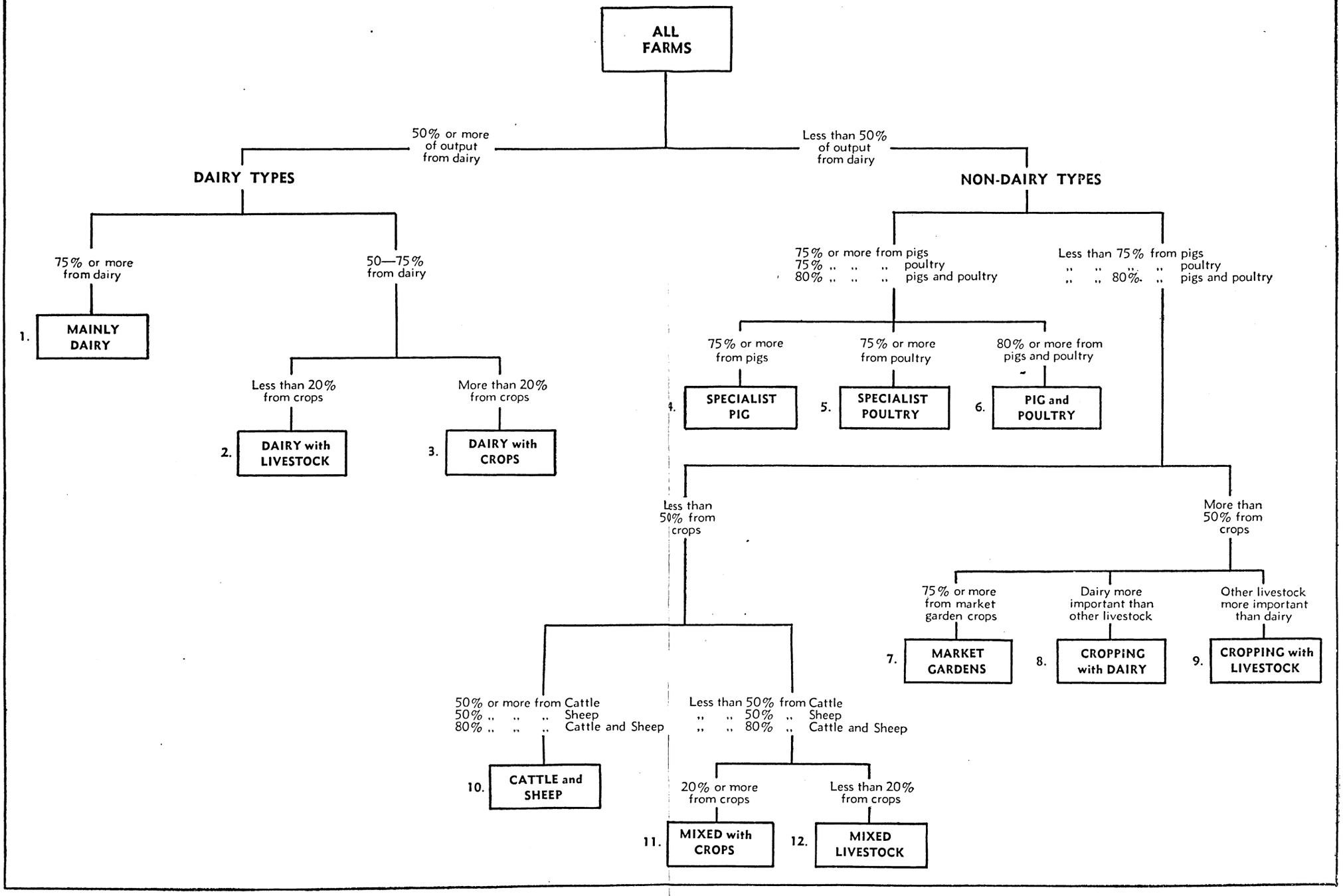
with Dairy (Group 8) if the output of the dairy enterprise was more than that from other livestock—or **Cropping with Livestock** (Group 9) if the output of other livestock was more than that of dairy.

The next step was to eliminate those farms with more than 50% of their output from either cattle or sheep. These farms were the rearing types and the group was called **Cattle and Sheep** (Group 10). In a similar manner to the pigs and poultry grouping above, farms with 80% or more of their total output from sheep and cattle combined were also put into the cattle and sheep group.

The remaining farms have less than 50% of their output from any one enterprise (except for a few farms with 50—75% from either pigs or poultry). Most of these farms had at least three enterprises and the final stage of the type sorting was to split these into two groups. If farms had more than 20% of their output from crops they were put into a **Mixed with Crops** group (Group 11), but if they had less than 20% from crops they were put into a **Mixed Livestock** group (Group 12).

The 3,079 full-time farms were sorted into these twelve type-of-farming groups—except for 50 farms which for various reasons were left unclassified.

TYPE OF FARM SORTING



The Northgate Press,
(Exeter) Ltd.
9, North Street, Exeter.