

PRESENT POSITION AND FUTURE PROSPECTS FOR THE BRITISH NURSERY INDUSTRY

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Prior to selecting a sample of holdings for a national costing of ornamental trees and shrubs, which was commissioned by the Ministry of Agriculture and is currently in progress, the Agricultural Economics Research Unit of the University of Bristol, as co-ordinating centre for the study, obtained details of hardy nursery stock (HNS) acreages relating to the June 1971 census. These data were analysed and the results published in August 1974¹. It is this report, brought up-to-date and supplemented, which forms the basis of this article.

Setting the Scene (Table 1). There were in England and Wales in 1971 nearly 3,000 producers and some 16,000 acres of hardy nursery stock. Of this area, 2,700 acres were occupied by fruit trees and bushes, and in the discussion of demand which follows later, this section of the industry has been deliberately excluded as being unrepresentative. A considerable proportion of its output is by and for commercial fruit-growers and, in contrast to ornamentals, the acreage of fruit trees and bushes has been declining steadily since this category of HNS was first separately identified in the June census of 1954.

Table 1. Distribution of hardy nursery stock acreage and holdings, 1971¹

	Number of holdings	Area of HNS acres	HNS acres per holding acres
All HNS	2,908	16,030	5.5
Of which:			
Ornamentals	1,365	6,199	4.5
Roses	872	4,071	4.7
'Other' nursery stock	1,548	3,062	2.0
Fruit trees and bushes	792	2,698	3.4

¹ Source: Hardy Nursery Stock in England and Wales, AERU, University of Bristol (1974); based on data supplied by the Ministry of Agriculture, Fisheries and Food.

¹ "Hardy Nursery Stock in England and Wales — a brief study of scale, location and structure." J. Rendell & S.R. Wragg, Agricultural Enterprise Studies in England and Wales, Economic Report No. 29. University of Bristol, Agricultural Economics Research Unit.

Table 1. continued

	Number of holdings	Area of HNS	HNS acres per holding	
Degree of specialisation:				
No. of categories: One	1,916	6,417	3.3	
Of which:				
Ornamentals	485	1,642	3.4	
Roses	266	1,762	6.6	
'Other' nursery stock	826	1,605	1.9	
Fruit trees and bushes	339	1,408	4.1	
Two	528	2,821	5.3	
Three	251	3,140	12.5	
Four	213	3,652	17.2	
			Percent of total	
			By holding	By area
Size Group:				
Less than 1 acre	1,066	431	36.6	2.7
1 to 4.99 acres	1,266	2,724	43.6	17.0
5 to 19.99 acres	429	3,759	14.7	23.4
20 acres or over	147	9,116	5.1	56.9

While only 13 percent of holdings growing HNS are exclusively devoted to this activity, and 65 percent of growers use less than half their acreage for HNS production, there is some degree of specialisation within the HNS sector. Although two-thirds of the holdings produce only one of the four separately identified categories of HNS, "specialisation" in this sense is a relative term. Obviously "rose" and "fruit-tree and bush" production is far more specialised than say "ornamental tree and shrub" production. In fact, it will be apparent later that the United Kingdom industry is not specialised enough.

A further point to be noted from the figures presented in Table 1 is that although small-scale growers of HNS are numerically important, their share of the total HNS acreage is comparatively very small.

Regional Distribution (Table 2 and Figures 1 and 2). Although hardy nursery stock is grown to some extent throughout the United Kingdom, there are only certain parts where it is of considerable importance, in particular South East England, East Anglia and the East Midlands. That this is not just a question of demand, as measured by the size of the population, is clear from the figures presented in Table 2, for "HNS acres per 10,000 population" is higher for these three regions than for all other parts of Great Britain. In contrast HNS is poorly represented both in relation to population and in absolute terms in the whole of England north of a line from the Mersey to the Humber, and in Wales.

Table 2. Regional distribution of hardy nursery stock acreage in 1971¹

Region or county	Area of HNS acres	Population million	HNS acres per 10,000 pop. acres
<i>England</i>			
South East	6,922	17.0	4.0
East Anglia	2,348	1.8	14.1
East Midlands	1,913	3.3	5.6
West Midlands	1,500	5.1	2.9
South West	1,166	3.9	3.1
Yorks/Humberside	610	4.8	1.3
North West	606	6.7	0.9
Northern	417	3.3	1.3
<i>Scotland</i>	888	5.2	1.7
<i>Wales</i>	548	2.7	2.0
Total	16,918	53.8	3.1
Surrey	2,390	1.0	23.8
Norfolk	1,345	0.6	21.8
Hampshire	1,153	1.7	6.9
<i>Western Europe</i>			
West Germany	33,600	61.7	5.4
France	24,200	50.8	4.8
Holland	9,400	13.0	7.2
Belgium	4,400	9.7	4.5
Total W. Europe (excluding UK)	71,600	135.2	5.3

¹ Sources: Hardy Nursery Stock in England and Wales, AERU, Bristol University (1974) and Statistics Office of the EEC, Agricultural Statistics Series, 1972, No. 8.

When one considers individual county data, Surrey, Norfolk and Hampshire are very important for HNS production, contributing as they do 29 percent of the total acreage in Great Britain. The accompanying maps are of interest in that they clearly show that even within Southern England, HNS holdings are not randomly scattered. They tend to cluster in certain restricted areas of suitable soils and in particular, avoid the chalk downlands of that region.

In the rest of Western Europe, both West Germany and France possess large areas of HNS, as one would expect from their size, but even in The Netherlands, HNS acreage is considerable in relation to the population. These comparisons should, however, be treated with caution since the definition of HNS used in the various countries to determine the acreage devoted to that enterprise, is not necessarily identical in each case.

To summarise, HNS production, although widespread, is not evenly distributed in relation to demand as measured by population numbers, and there are considerable movements of nursery

stock both internally and across national frontiers. That there exists a large Dutch export trade in HNS is consistent with the high density per 10,000 population of HNS in that country.

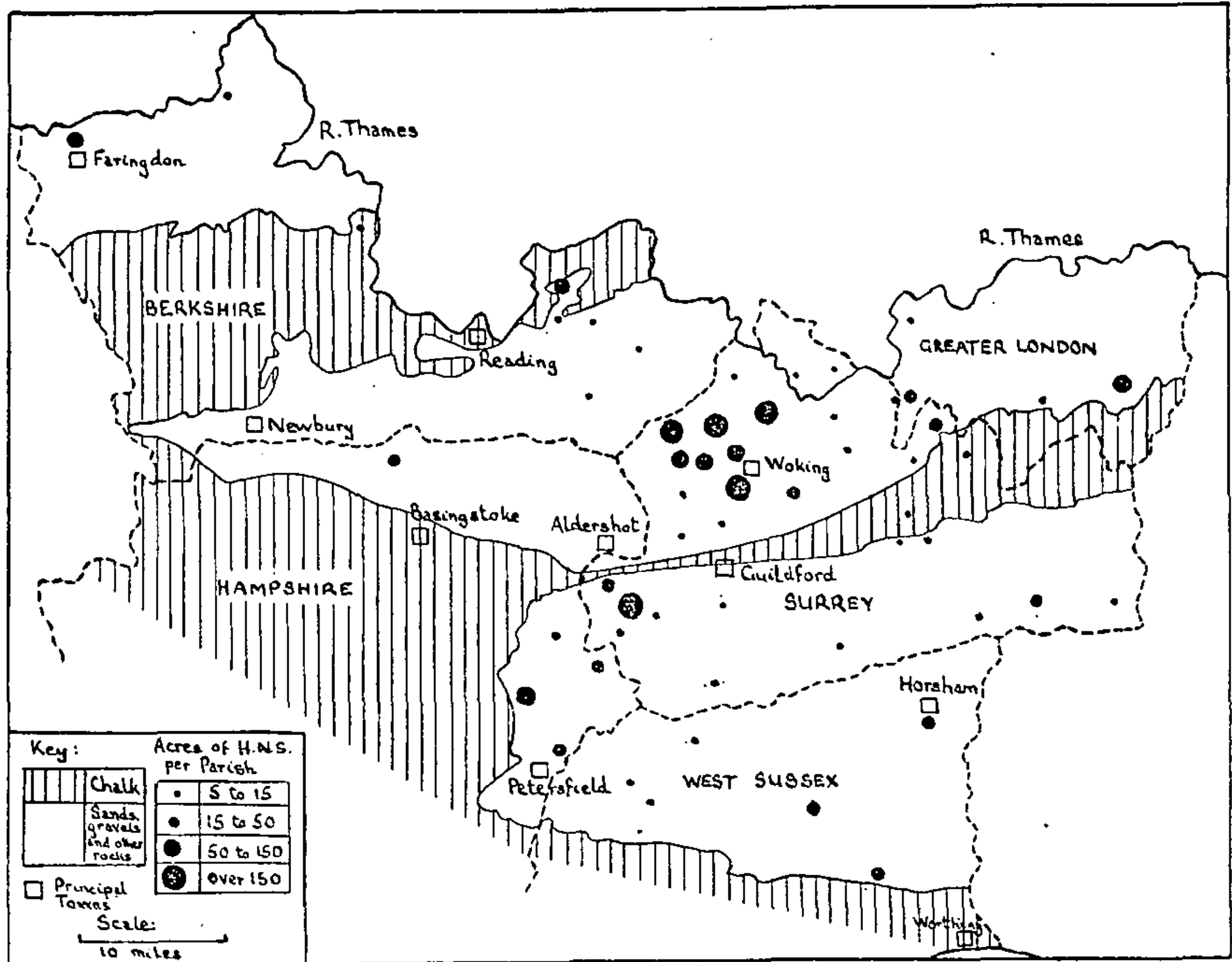


Figure 1. The London Basin and the West Weald

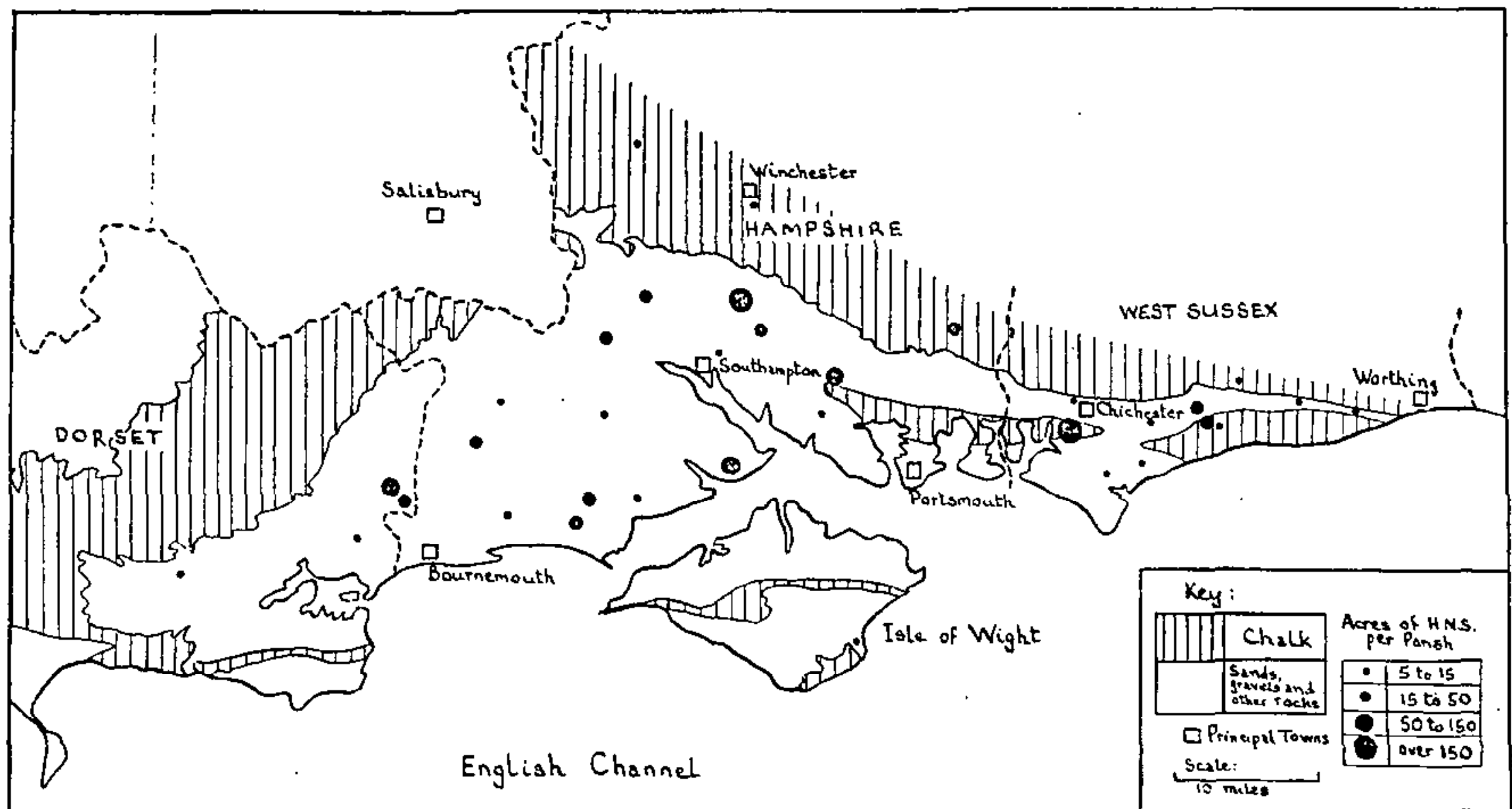


Figure 2. The Hampshire Basin.

Regional Specialisation. An appendix to our report included tables showing for the principal HNS-producing counties in 1971, the acreage and number of holdings for each of the 4 categories of HNS at that time separately identified. These data were presented both as totals and as percentages of the county HNS in each case.

Due to changes in the categories of HNS now detailed, the lack of data on holding numbers, and alterations in local government boundaries it has not been possible to fully up-date these tables. Nevertheless, it is clear that certain of the various "specialisations" within the HNS industry are associated with different parts of the country to an even greater extent than is the industry as a whole.

"Fruit tree and bush" production and "rose" production are more regionalised than the other specialisations. The former, as one would expect, tends to be concentrated in those counties with a substantial acreage of cropping orchards and fruit plantations, particularly West Sussex and Essex, the latter in the East Midlands, East Anglia and Clwyd. It is interesting to note that, comparatively speaking, rose production is of minimal importance in the Southwestern counties. This is probably due to unfavorable climatic circumstances.

The "shrubs, conifers, hedging plants and Christmas trees" category is of particular importance in Dorset, presumably for heathers. Devonshire, Derbyshire, Surrey, Staffordshire and Cornwall, should perhaps, also be mentioned here, although private information indicates that some growers of *Pittosporum* spp. for cutting as foliage have erroneously included their acreage of this crop under HNS. Ornamental tree production dominates the HNS industry of Lancashire, Cheshire and Hampshire, and is also important in Surrey. Herbaceous plants are associated with rose-growing in Norfolk and Cambridgeshire, probably in connection with the mail-order bulb firms of that area, and Somerset is also an important source of herbaceous plants. The use of the term "other" as a basis of classification is a convenient convention when the content of the group so described is relatively unimportant. But it sometimes happens, as in this case, that this is not so. Even after separating herbaceous plants, "other" accounts for 15 percent of the total HNS acreage, while it also exceeds the acreage of fruit trees and bushes.

Overproduction of HNS (Figure 3). In our report we pointed out that there had been a "steady and long-term expansion in ornamentals and roses" and stated that "this was obviously the grower's response to increasing demand." In attempting to provide an explanation for this post-war expansion we concentrated our attention on two explanatory variables, namely, the annual rate of completion of new houses and flats, and the level of con-

sumer expenditure at constant prices, because these two variables could be readily measured and data were available.

We found that the first of these two variables, namely new house building, did not add significantly to the explanation of annual change in the acreage of HNS, and we established that a one percent change in consumers' real spending was accompanied by a one percent increase in the acreage of HNS.

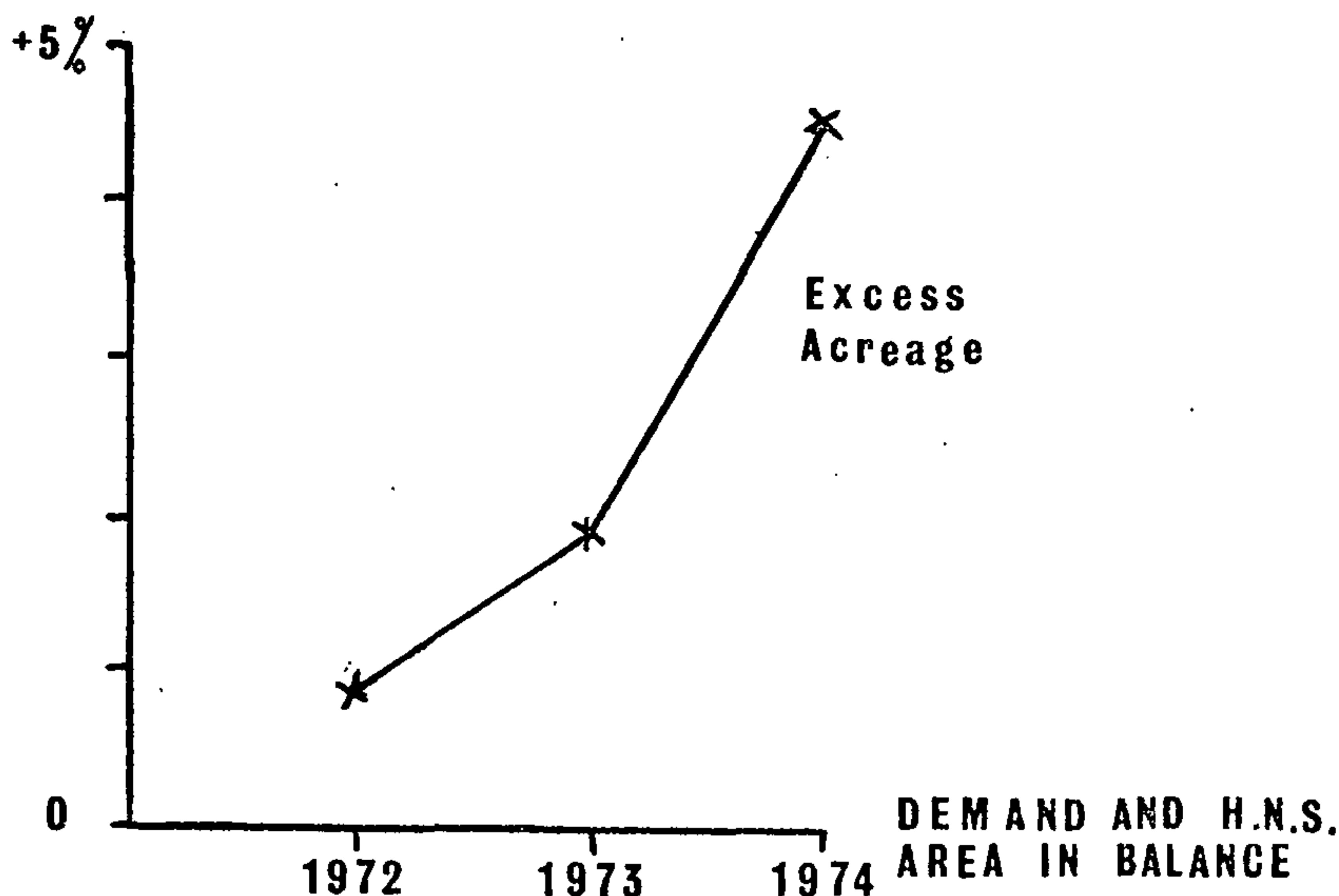


Figure 3. Overproduction of H.N.S.

Using this established relationship it is possible to calculate the expected acreage of HNS for those levels of consumer expenditure at constant price actually experienced in 1972, 1973 and 1974. The differences between actual and expected acreages, expressed as percentages of the expected, are shown in Figure 3. It is clear that during the last three years HNS acreage has increasingly exceeded that acreage which in the past one would have expected to have satisfied demand. In particular the acreage of HNS continued to rise in 1974 despite an actual fall in consumer expenditure at constant price. This coupled with a recession in the building industry and a clamp-down on public expenditure, points very clearly to a present state of overproduction, and the likelihood that rapidly increasing production costs can no longer be offset by price increases sufficient to maintain profitability.

The NEDO report of May 1973, even at that time, speaks of the difficulties faced by rose growers, largely because of overproduction. This is confirmed by the June census data for "roses" which show that since 1971 an appreciable decline in acreage has

taken place, and it seems likely that a similar situation is now facing the nursery trade as a whole. That there has been an even steeper decline in the number of rose stocks imported from the Continent, from some 50 million annually in 1969 to about 30 million annually at the present time, suggests that production of home-produced stocks has actually increased.

Recent changes in the HNS industry. Due to changes in the 1973 census in the categories of HNS, separately distinguished comparisons with earlier years are somewhat difficult to make and subject to a certain amount of estimation. For instance the category "shrubs, conifers, hedging plants and Christmas trees" for 1973 and 1974 may include some areas previously classed as "other hardy nursery stock", and similarly "other hardy nursery stock" may include mixed areas formerly divided between the separate categories. Such distortions are unlikely to be serious, and are to some extent self-compensating.

A study of the data for the 4 years, 1971 to 1974, is of some interest as it reveals considerable changes within the HNS industry which are concealed in the overall acreage figures. During this period "fruit trees and shrubs" and "roses" both show a steady decline in acreage despite the continued rise in total HNS area. The latter has been due to that section of the industry comprising "ornamental trees and shrubs" which has expanded considerably. It is perhaps significant that within this group "shrubs, conifers, hedging plants and Christmas trees" fell from 4,039 acres in 1973 to 3,858 acres in 1974. An interpretation of changes in the "other hardy nursery stock" area is difficult as the 1972 figure is inconsistent with data for the remaining years.

Plant movements within the nursery trade. In 1969, the only year for which appropriate data are available, output of HNS in Great Britain was valued at some £ 17½ million¹ of which only £ 10½ million was sold retail, and probably £ 2 million at least represented movements of plants within the nursery trade itself. For the nursery trade is a very complex business with some plants being propagated on one holding, "grown on" on a second and bought for resale by a third, increasing in value at each stage.

¹ Ed. Note: In 1969, the British pound was equal to about \$2.80. (In November, 1975, it was equivalent to about \$2.10).

It is evident that any increase in the area of HNS in Great Britain might increase the import expenditure on stock-plants and plants for "growing-on". However, this increase would be considerably less than the increase in total value of the home industry and in any case could not conceivably support a rate of growth in imports greater than the rate of growth in the United Kingdom acreage.

The role of imports (Figure 4). Imports of HNS in terms of value at constant price have been increasing since 1966 by an average $10\frac{1}{4}$ percent per annum, whereas the increase in the England and Wales acreage of HNS has been on average only $4\frac{1}{4}$ percent per annum. Even a cursory glance at Figure 6 shows that imported HNS has been capturing an ever larger share of the United Kingdom market. This is presumably at the expense of the British producer, for only a relatively small proportion of this increase in imports could be for filling the needs of the commercial UK nursery for additional young plants and cuttings.

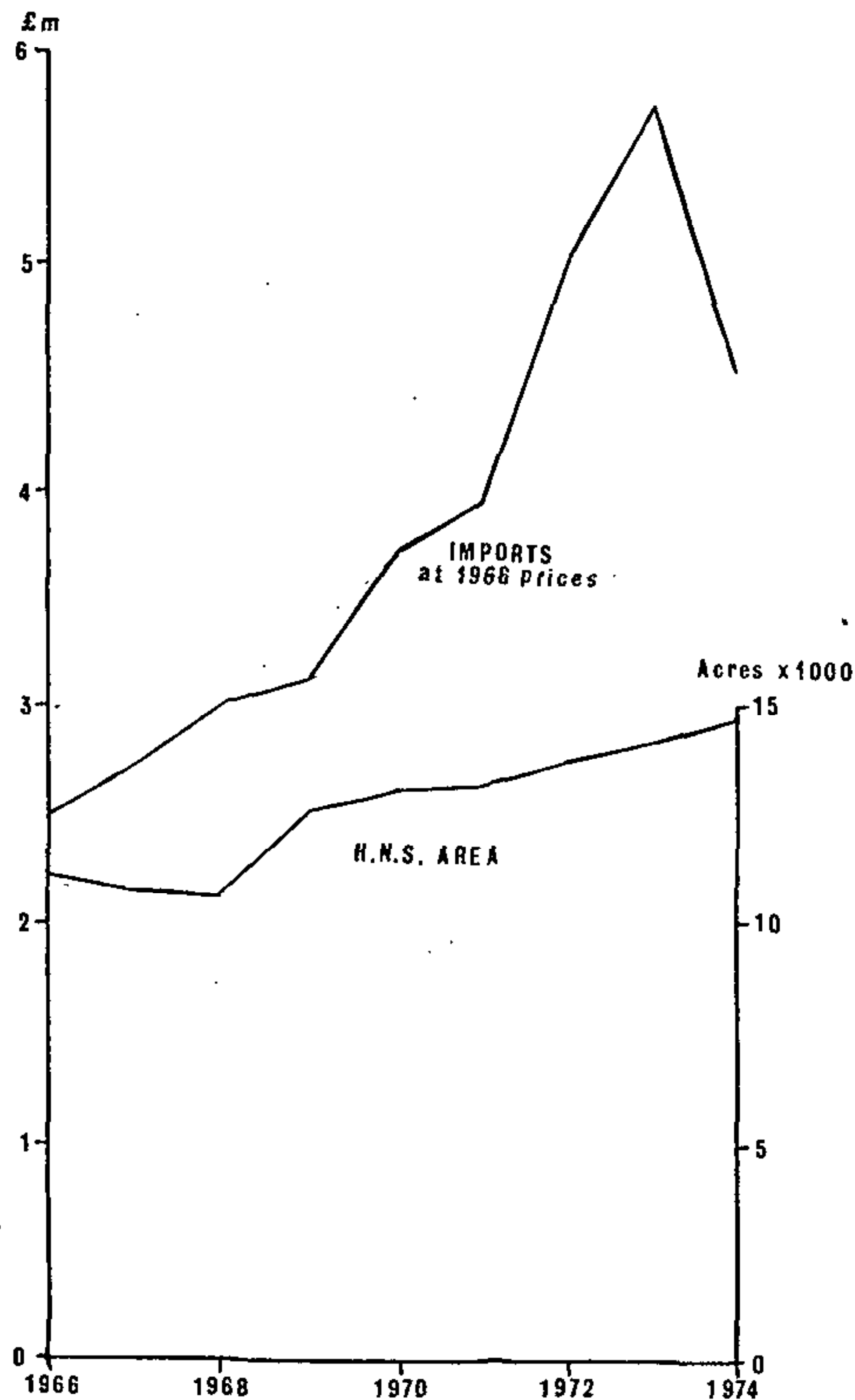


Figure 4. Changes in H.N.S. area and imports. (Sources: MAFF, June census data. Annual Statement of UK trade.)

It is unlikely that this trend will continue, however, since it is clear that demand in this country will decrease, or at least will rise more slowly than in other parts of Western Europe, and our own stage of overproduction will make the United Kingdom market less attractive to Continental producers than hitherto. Certainly the input of plants and cuttings for growing-on will decline with any substantial fall in the United Kingdom HNS acreage in the same way as has in recent years the import of rose stocks.

European trade in nursery produce The Netherlands is the principal country in Western Europe for the export of HNS and about two-thirds of our HNS imports originate there. West Germany is the largest importer of HNS, although in contrast to the United Kingdom, it also has a sizable export trade. In consequence, in 1971 at least, its net import bill for HNS was less than that of the United Kingdom. Belgium and Denmark are other net exporters of HNS, although this trade is very much less than that of the Dutch.

Future Prospects. The UK is climatically in a favorable position for the production of HNS compared with many parts of the European Economic Community. Although the dispersed nature and small-scale of the industry can be of advantage when supplying small retail outlets, the industry is not so well placed for providing large numbers of a restricted range of plants for landscape work and so on. This point is made specifically by B.T. Barrett in a "Survey of the demand for hardy nursery stock in Scotland." He quotes Scottish Local Authorities as saying repeatedly that they "would prefer to buy Scottish-raised plants because of their better acclimatization, if price, quality and availability were at least as good as those from English and Continental sources." "The advantage in all these factors is with the Continental suppliers, even allowing for transport and packing" and "the establishment of large-scale cooperative growing is urged."

Similarly P.R. Thoday of the University of Bath, in a report to the National Health Service on the demand for and best method of growing hardy nursery stock used in the landscaping of hospital grounds, says of the Continental producer that "rigorous grading to export standards ensures reliable, high quality material which is often available in larger quantities than from British producers. Most significant is availability of very young nursery stock sold immediately after the propagation stage for growing-on in the nursery. As this stock is very small it is relatively cheap but is often the result of highly skilled specialist propagation techniques. The purchase of such "whips" and "liners", particularly some grafted trees, is strongly recommended." Surely there is no overriding reason why this market need remain in the hands of the Continental producer and, although the history of horticultural cooperation in this country is not one of unqualified success, HNS producers would, at this time of increasing competition, be well advised to work more closely together in an attempt to capture their fair share of this market.

Replies to a questionnaire sent by Thoday to ten local authority parks departments indicated that "home production is extremely unlikely to prove cheaper than purchasing." In a time of limited and curtailed public expenditure it might be thought that many non-commercial propagating units, for example those run by

parks departments, would be closed and that plants urgently required would be bought-in. Unfortunately for the industry this may not be the case, since to quote Thoday, "the choice between purchase and home production may not ultimately be a matter of expenditure but of accounting. It is evident in some cases that at present it is far easier to get money for the provision of nursery stock via the wages of the ground staff than it is by orders placed with commercial firms."