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TYPES OF FARMING IN THE UNITED STATES

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IN THE brief time at my disposal I shall attempt only to show the nature of the forces that control type of farming in a few localities, and to point out recent shifts in type that have occurred in this country, with a very brief discussion of their causes.

A map showing the percentage crop areas of the New England States shows that the greater part of the crop area—about 70 per cent—is occupied by hay. To understand the reason for this it is necessary to know that cotton, corn, wheat, oats, and hay together occupy 88 per cent of our total crop area. Each of these crops now occupies over 40 million acres. No other crop except barley occupies as much as 7 million acres. Barley, which is a partial substitute for corn in the Northern Plains, now occupies about 13 million acres, and the acreage is increasing.

It is important to remember that normally every crop in the list is produced in excess of the need for it. There are only small possibilities in the way of substituting any one crop for any other at the present time.

Cotton is eliminated from New England agriculture by climatic conditions, in this case, temperature and length of growing season. Corn is greatly restricted by the same set of conditions. The season between frosts is often too short for corn to mature.

Wheat, oats, rye, and barley hardly appear in New England. Crops of this class have benefited more than any other from modern labor saving machinery. Such machinery is not adapted to the small, often rocky, hillside fields of New England. New England farmers can not grow them in competition with the large level fields of the Middle West.

The acreage of fruits, mostly apples, and vegetables in these states is relatively large, nearly as large, in fact, as market conditions permit.

The major portion of New England farm land is therefore of necessity devoted to hay. Hay itself is made economically possible here by the fact that New England farmers have almost a monopoly of the fluid milk trade of many cities. The cows required to produce this milk consume the hay.

So much for crop enterprises. Dairying is, of course, the leading animal enterprise on New England farms. Beef and pork production, except under extremely local and unusual conditions, is eliminated by the high price of concentrated feeds, practically all of which must be obtained from a distance. Sheep have some slight adaptation where large areas of pasture are available.

Poultry occupies a special position in New England agriculture. The New England farmer is in position to deliver eggs in fancy condition to nearby markets and thus get fancy prices for them. Although grain feed is high in price, he can compete with Middle-western egg producers, who cannot get their eggs to Eastern markets in condition to get fancy prices for them. Poultry and dairying are therefore the animal enterprises commonly found on New England farms.

I shall not take the time to show how the agriculture of all other sections of the United States is determined by various physical, biological, and economic forces. Instead, I shall merely refer to Farmers' Bulletin Number 1289, of the United States Department of Agriculture in which these matters are discussed for each of the various groups of states.

An important determining factor that is hardly perceptible in state averages is soil type. Only two plain cases of soil influence are evident. Wheat occupies a very minor place in Iowa mainly because the soil is better adapted to oats. New Jersey has a larger percentage acreage of vegetables because of the relatively large area of sandy soils in that state. On maps showing crop distribution by counties, the soil looms up as a factor of great importance in determining the kinds of crops grown.

A few words now as to shifts in types of farming in recent years. Practically no farm enterprises maintained their status unchanged during the period between 1909 and 1924. Although several of them (particularly oats, flax, and sweet potatoes among the crops, and beef cattle, and sheep among the animal enterprises) show little or no change in location, they did change their relative status in the country as a whole or in certain localities in which they are best developed. In most cases, however, the changes in these latter enterprises represent mere fluctuations due to fluctuations in prices of the products themselves or of those competing with them for the land.

Such changes as have occurred are due mainly to changes in

economic conditions, particularly changes in prices. The shift in cotton production, which was large, is directly due to price conditions, but the damage to the crop by the boll weevil is a major contributing cause. Although shifts in location or in relative status occurred in the case of practically all enterprises, the outstanding cases are not numerous. The most important are as follows:

1. The westward and northward shift of cotton acreage. The extension of this crop westward and northward is due almost wholly to the high prices of cotton that prevailed during the World War and afterwards. The marked reduction in acreage in the Southeast was due partly to reduction in yield from boll weevil damage and partly to the low prices for the crops of 1920, 1921, and 1926. The low prices of 1920 and 1921 were due mainly to panic conditions in the financial and business world; those of 1926 were due to overproduction from a greatly expanded acreage and an abnormally high acre yield. The westward expansion brought much new land into cultivation in sections that cannot well shift to crops other than cotton.

The decrease in the southeastern states has been disastrous. It has resulted in the abandonment of an enormous acreage of crop land. Farmers in these sections have naturally attempted to find substitutes for cotton, but with only local and partial success. They have increased the acreage of feed crops, such as peanuts and velvet beans, and they have given increasing attention to livestock. In certain localities there has been a striking increase in tobacco acreage.

The first necessity under circumstances like these is a return toward the production of home supplies, a practice which prevailed along the Atlantic Coast in the early days of farming in this country; that is, to the production of food for the farm family, and of feed for the livestock necessary to till the soil and to produce livestock products for consumption on the home farm. There has been a marked tendency of this kind in the section under consideration.

Possible substitutes for cotton as a cash crop are very limited in these sections and in practically all cases are local in their possibilities. The cultivation of tobacco has developed in eastern South Carolina on a considerable scale and more recently on a larger scale in southern Georgia, but the expansion of tobacco

acreage has exceeded the market demand. Fortunately, the tobacco produced in this territory is adapted to the manufacture of cigarettes, the demand for which is rapidly increasing. It is therefore probable that in time there may be a considerable further increase in acreage in part of the territory. But tobacco is not a general substitute for cotton in the section.

Peanuts or soy beans for the production of oil are a possibility, but their utilization for this purpose requires the building of oil mills, and the market for the product is somewhat limited. But there appears to be a possibility of growing these crops on two or three million acres more than are now devoted to them; at least the United States is importing vegetable oils equal to the production of such an acreage devoted to either peanuts or soy beans.

A few very restricted localities have found truck crops a complete substitute for cotton, but the area now planted to such crops over the country generally is so large that the production already often exceeds market demand. It is out of the question for truck crops to become a general substitute for cotton in the southeastern states.

Some serious problems must be attacked and solved before the farmers in this area can make livestock a satisfactory basis for farming. The problems of pastures on low-lying lands has apparently been solved already by the use of a mixture of carpet grass, Dallis grass, and lespedeza; but it must be solved also for uplands if cattle are to become an important item in the local farming.

Another serious difficulty is the production of winter feed for farm animals. The area grows a number of hay crops readily, but the curing of hay is rendered difficult, at least in some years, by the heavy rainfall. Methods of curing hay must be studied.

The problems of proper methods of feeding all kinds of farm animals, and of breeding and selection for improvement, can be learned only gradually, hence time will be required for their solution.

An important class of problems that has received too little attention is that of animal parasites, both external and internal. The fever tick is being gradually eliminated. There is reason to believe that in the not-distant future it will be a thing of the past. But there remain numerous internal and external parasites that

afflict all kinds of domestic animals. Methods of avoiding them must be worked out before a satisfactory agriculture can be built on livestock in the southeastern states.

With the solution of these problems there is reason to believe that livestock farming could be made successful in this area.

2. The enormous extension of wheat acreage that occurred in 1919 was due partly to high prices for wheat, and partly to patriotic motives which resulted in a hearty response to the appeal of the government for increased production as a war measure.

The increase in wheat acreage was practically universal in areas in which wheat is grown. But a large part of the increase was on land newly taken into cultivation, expressly for the purpose, along the western margin of the Plains region.

By 1924 wheat had returned to its normal status in most sections of the country, but the great expansion which had occurred in western Kansas and adjacent portions of Oklahoma and Texas remained, or had been increased. The increase was permanent also in the Northern Plains States except in northeastern North Dakota, where the advent of a serious weed, the sowthistle, had made radical changes in farm practice necessary.

The result of all these changes was a considerable net increase in total wheat acreage in 1924 as compared with the pre-war years.

3. Another important shift concerns the swine industry and two crops, the culture of which is basic to the swine industry—corn and barley. The swine industry has decreased throughout the territory lying south and east of the Corn Belt, but it has developed northwestward and has extended far in that direction. The corn crop attempted to follow, and there has been a marked drift northwestward for this crop. Corn found conditions in the Northern Plains region not wholly to its liking, but the region is eminently adapted to barley, which is an excellent feed for swine, and there has been a very marked expansion of barley in all the states of the Northern Plains region.

4. The decrease in the number of horses, which began about 1918 and is still in progress, has had a depressing effect on the price of the three great feed crops—corn, oats, and hay. Oats are used more largely for horse feed than for any other purpose. The reduction in demand has resulted in continued low prices for this crop. The decrease in the demand for hay to feed city horses and the marked increase in freight rates which occurred during

and after the World War have practically wiped out the commercial hay industry in many mid-western localities where, before the war, it was a major enterprise. The loss in demand for corn, and to a less extent for hay, to feed horses has been partly offset by an increased demand for hogs, cattle, and sheep.

5. Between the Corn Belt to the north and the Cotton Belt to the south is a wide area in which corn is the dominant crop, but which is a deficit corn country. Corn is therefore relatively high priced in this area, thus rendering it poorly adapted for use in meat production.

Lack of other suitable enterprises has led to considerable development of dairying here. The area in question extends from southeastern Kansas to Virginia and Maryland. There is reason to believe that dairying will increase in importance here.

The subject of shifts in farm enterprises is discussed in detail in a recent Preliminary Report of the United States Department of Agriculture entitled, "Shifts in Farming in the United States," a limited number of copies of which are available.