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## FOREWORD

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The Bureau of Agricultural Economics of the United States Department of Agriculture began this study of truck farming in 1917, and later the College of Agriculture of the University of Florida cooperated in the work, to the extent of furnishing one field man (H. G. Hamilton). The study was finished in 1922, and the results were compiled and prepared for publication by the workers in the Bureau of Agricultural Economics at Washington, D. C.

The authors wish to extend thanks and acknowledgement of aid to Messrs. R. J. Leth, F. Montgomery, C. E. Hope, J. M. Purdom, Jr., E. S. Haskell, F. H. Shelledy, H. A. Miller, C. R. Swinson, and C. C. Taylor of the U. S. Department of Agriculture, and to H. G. Hamilton of the Florida College of Agriculture, who assisted in collecting the data presented in the bulletin; and to Miss Helen Lee and others who tabulated the data. Special thanks are also extended to the farmers of the Plant City area for the uniform courtesy shown to the workers, and for giving the details of their business which made this report possible.

In order to facilitate the publication of this information, permission was given to the College of Agriculture of the University of Florida to complete and publish the results of the work. Believing that the study would be useful both to the farmers of Florida and to the instruction work of the College, Dr. J. E. Turlington, head of the Department of Agricultural Economics, has approved the manuscript with minor changes, and arranged for its publication as a research bulletin of the College of Agriculture. It is hoped that the College will be able in the future to publish additional bulletins on timely agricultural subjects.

C. H. WILLOUGHBY,  
*Chairman of Publication Committee,*  
*College of Agriculture*

AN ECONOMIC STUDY OF  
TRUCK FARMING IN THE PLANT CITY AREA,  
HILLSBORO COUNTY, FLORIDA

By Bruce McKinley and W. C. Funk\*

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### INTRODUCTION

Trucking, like other special kinds of farming, has developed practices peculiar to itself. Diversity of crops, utilization of labor, quantities of fertilizer used, items of receipts and expenses, are shown in this study from data taken on 100 farms, in the area near Plant City for the years 1917 to 1922, inclusive.

The study was made to determine the practices involved in the production of truck crops and the profit from truck farming in the area, and to make information available which will indicate how some of the less successful growers may improve the organization of their business.

It is believed that the results of this study will be helpful to farmers on truck farms in Florida, and to those from other sections who may locate in the state in the future.

The area was selected because it is a well established trucking section, and represents a type of farming with a great diversity of truck crops.

\* At the time this manuscript was prepared, Bruce McKinley was Assistant Agricultural Economist, and W. C. Funk was Associate Farm Economist, in the Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C. The former has been Assistant in Agricultural Economics at the Agricultural Experiment Station, University of Florida, since January 1, 1926.

## ECONOMIC HISTORY

As early as 1845 a United States Civil engineer in a report on the township where Plant City now stands says, "The prairies form a cattle ranch unsurpassed in the United States." The original site of Plant City was a cotton field when platted into town lots. As late as 1867 the country was largely a wilderness. Orange trees were planted for family use, and long staple cotton, sugar cane and sweet potatoes were important crops at an early date. Farm products and supplies were hauled by ox teams to and from Fort

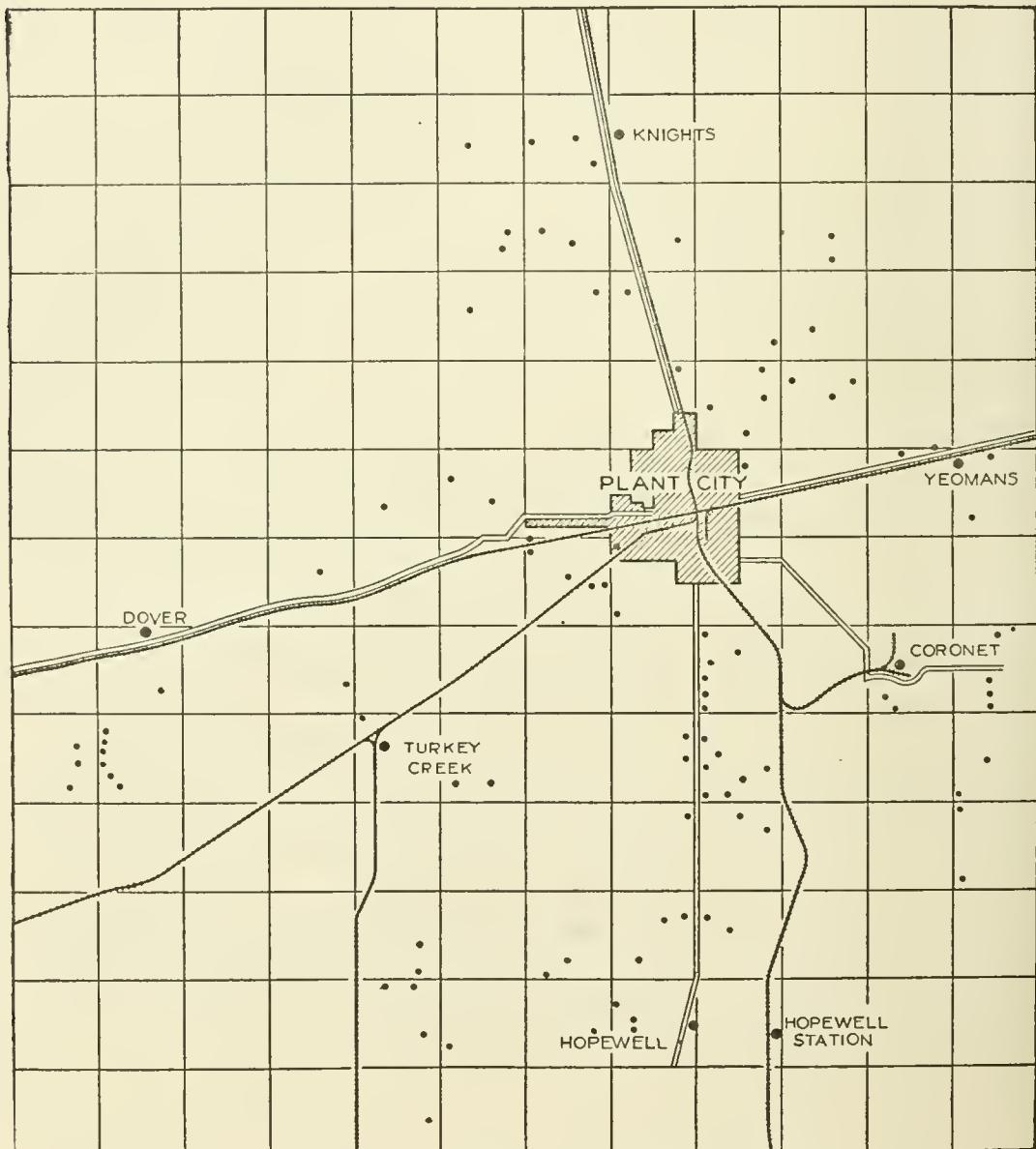


Fig. 1. Location of farms—The farms studied are in the vicinity of Plant City, Hillsboro County, Florida. It will be noted that Plant City has good shipping facilities. The two railroads to the north are main lines of two competing companies having direct connections to New York City. Most of the farms studied were located in settlements containing good soils.

Meade in Polk County, a distance of nearly fifty miles, before railroads were built into this section. The early settlers paid their taxes with crop receipts, and traded cattle and hogs for necessities. Land values were from \$1 to \$1.25 per acre, but cheaper in large tracts.

The first railroad was built to Plant City in the 70's, and for a time this was the terminal for what is now the Seaboard Air Line Railway. Trucking did not begin until about this time. Tampa soon became the leading market, but truck farming did not have an important place until outside markets were opened through means of railroads.

According to the Census, the value of orchard products in 1879 for Hillsboro County was \$49,268. The main field crop was corn grown on 4,968 acres; sweet potatoes ranked next in importance to corn, being grown on 583 acres; cotton was grown on 556 acres, and sugar cane on 238 acres. The above figures included Pinellas County which was separated from Hillsboro in 1911.

The freeze in 1894-95 gave the citrus industry in Florida a severe shock, as practically all the citrus groves were killed down. New sprouts grew from many of these, and as a result fine seedling groves producing large quantities of good quality fruit now mark the old grove sites.

The growing of vegetables for northern markets was a new industry which developed about 1900. In the Plant City area it has assumed large proportions, and at present trucking, growing of citrus fruits and a small amount of stock raising are the principal farm enterprises.

## DESCRIPTION OF AREA

**Location:** The area is located in the west central part of Florida. Plant City, which is approximately in the center of the area studied, is 22 miles northeast of Tampa and 189 miles south of Jacksonville (Fig. 1.). Truckers from every direction and from long distances, haul their crops to be shipped from this distributing center, so it has become a widely known market.

**Transportation facilities:** This area has especially good transportation facilities. The main lines of the Seaboard Air Line and Atlantic Coast Line pass through Plant City and give good outlets to northern markets; also the main highways from Tampa to Jacksonville and to other parts of Florida pass through or have connections at Plant City. The county is well supplied with paved roads leading in all directions. Freight boats make regular trips from Tampa to Gulf and Atlantic ports as well as to foreign markets.

**Soils:** As a rule the soils of the state are quite variable, and this area is no exception. A number of soil types may often be found on the same farm, making care necessary in

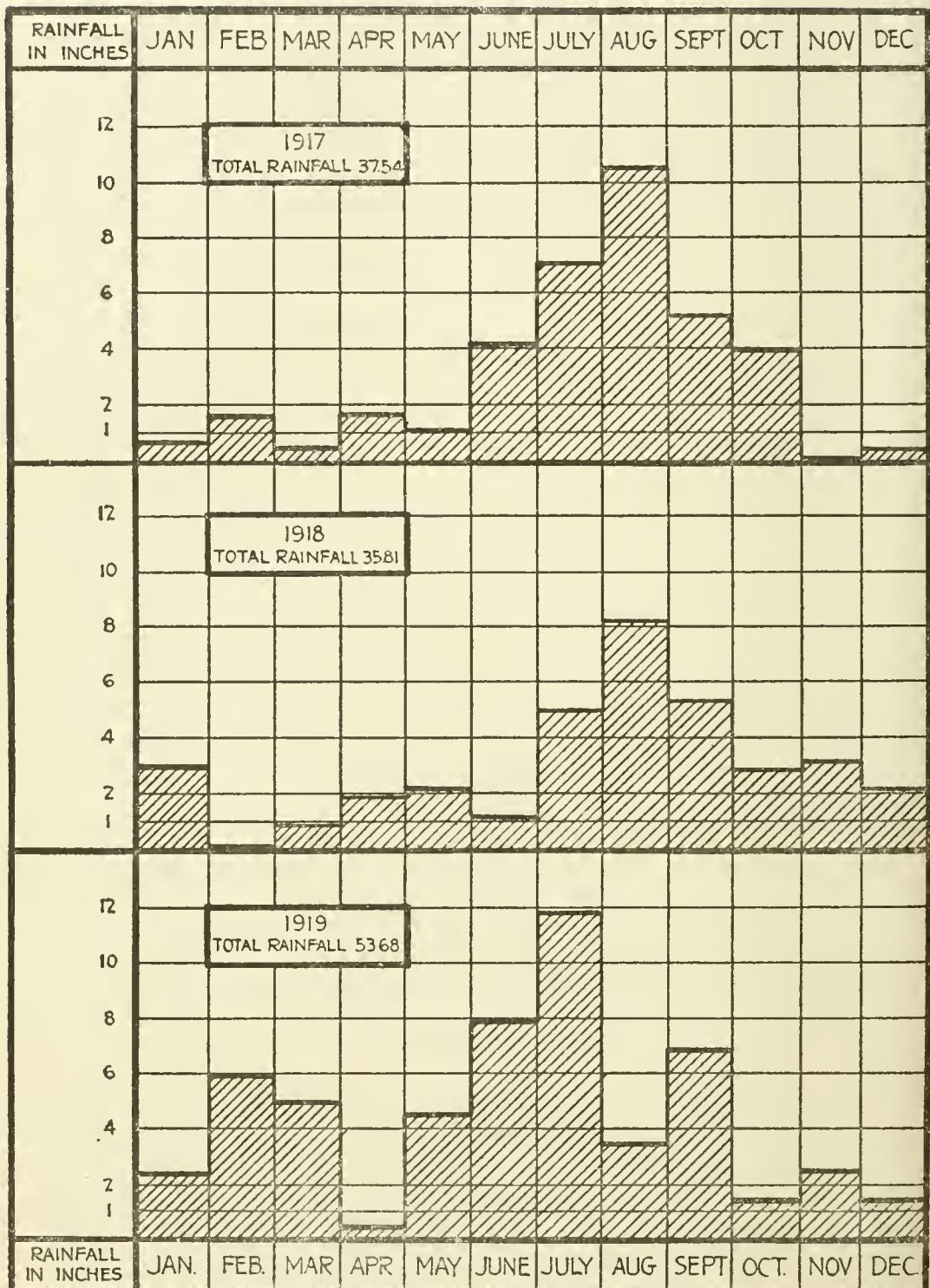


Fig. 2. Distribution of rainfall.—The outstanding months of heavy rainfall are July and August. (Continued on next page).

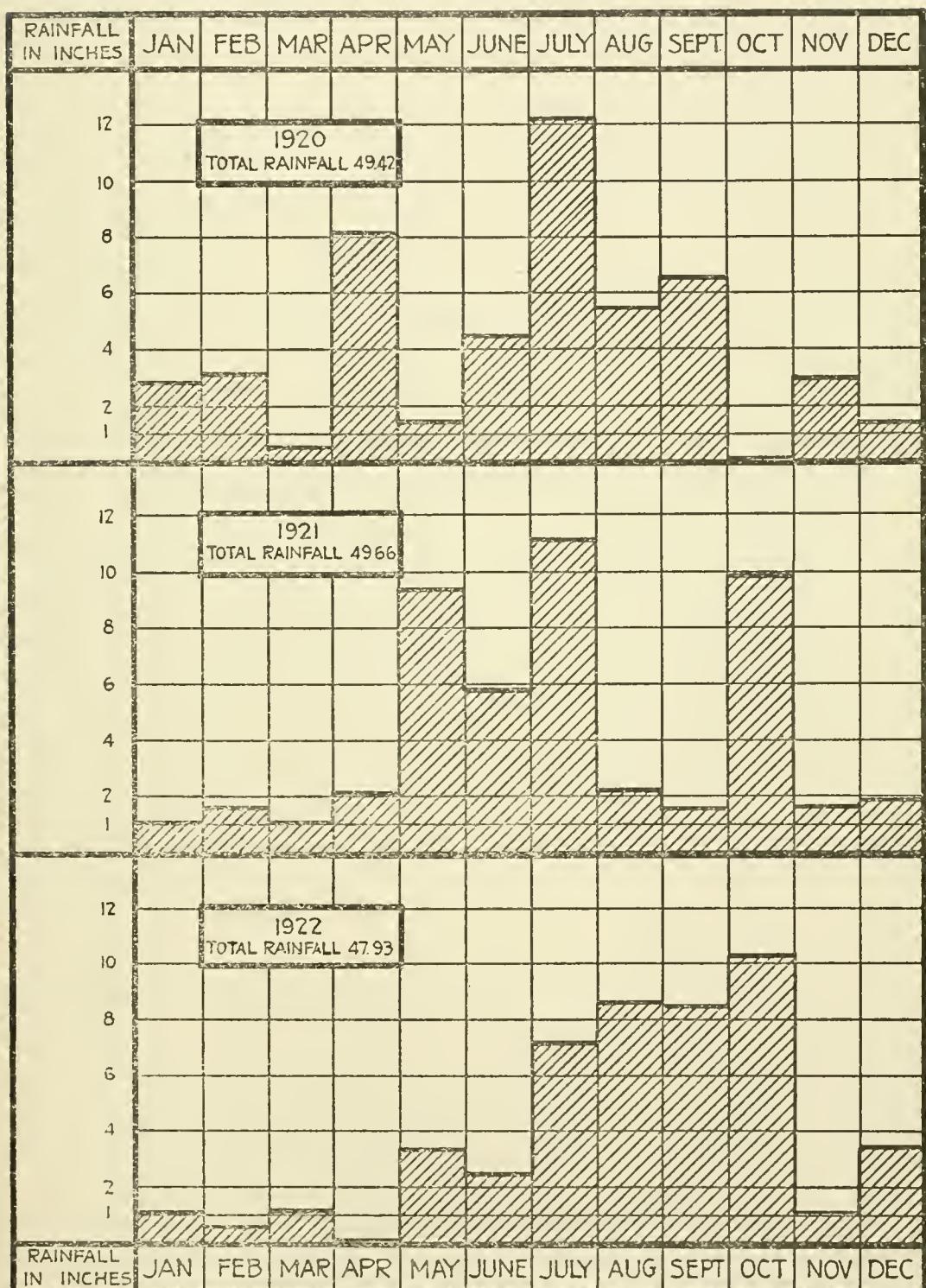


Fig. 2, continued. Distribution of rainfall.—Heavy rainfall in the spring months such as that of April, 1920, was damaging to some crops.

selecting a farm. The spotted nature of the soil types may be seen by reference to the soil map of Hillsboro County.\* On a map of this size, however, it is not feasible to designate all of the small irregular areas of a soil type containing five acres or less.

The farms are not contiguous, as might be supposed, but they are located mainly on the good truck soils. There is still much good soil available as well as considerable poor soil.

The three soils having the highest economic value in this area are the Norfolk fine sand, Scranton fine sand, and Portsmouth fine sand. The Norfolk fine sand is not a strong type, but is in demand near bodies of water and on well-drained higher land, for citrus production. The Scranton fine sand is dark gray to black in color; it retains moisture well. Much of the land of this type is in cultivation, and is generally planted to truck crops. The Portsmouth fine sand is black in color containing a high percentage of organic matter and this is also generally used for growing truck.

**Topography:** The area in which these records were taken, is comparatively flat. Occasional depressions are found which during the rainy season fill with water, and no attempt is made to use these for agricultural purposes. Many of the best truck soils are located on relatively low levels but have been rendered safe for cropping purposes by ditching and draining to lower levels. Plant City has an elevation of 121 feet. The drainage of the County is carried into Tampa Bay.

**Climate:** Hillsboro County has a sub-tropical climate. The mean temperature is 70.4 F. The summers are long but because of the breezes from the Gulf, the usual effects of warm days and high humidity are not so noticeable here as in many places. Winters are mild, yet there are periods of moderately cool weather.

Temperature is a very important factor in the trucking business in Florida, because a large percentage of the products grown are subject to serious damage by cold. Climatic conditions, such as too much or too little rain, may hold in check the activities of farmers in preparing the ground and planting the seed at the proper time, and cool weather often prevents healthy germination and growth. These hazards prevent farmers from carrying out a very definite program, and often account for some of the variations in acreages of different crops in different years. It is true that the long season would permit these crops to mature if planted when conditions become more favorable, but this would put them on the market too late to secure prices that would bring a profit, largely on account of the competition of truck crops from other states nearer the large markets.

\*From Soil Survey of Hillsboro County, U. S. Dept. of Agriculture.

Rainfall as shown in Fig. 2 is not equally distributed throughout the year, being much heavier in the summer than in the winter season. The rainy season generally begins in June and closes in September. Over the six-year period of this study, the driest month in 1917 was November; in 1918, February; in 1919, April; in 1920, October; in 1921, January and March had an equal amount of rain, and in 1922, April was driest. On the other hand, in 1917 and 1918, August was the wettest month, July in 1919, 1920 and 1921, and October in 1922.

**Agriculture:** Only about one-eighth of the land area of Hillsboro County is in farms at the present time. Considerable of the non-tillable land is low and poorly drained, having a sparse growth of pine; but some of this is good potential crop land. Most of this land furnishes some pasture for range cattle. The beef cattle as listed in Table 1 are largely native range cattle which subsist in the main on the pasture furnished by the untilled land in the neighborhood.

The farms are small and about one-half of the land in farms is still in woodland. It will be observed from Table 1, that the land which is cropped is worked intensively. Vegetables, oranges, grapefruit, sugar cane, and strawberries are the cash crops grown, while corn and hay are raised for feed. In the sparsely populated part of the county, range cattle,

Table 1—*Utilization of land and number of livestock kept on farms in Hillsboro County, Florida, 1919. Data from U. S. Census.*

	Acres
Approximate land area .....	663,040
Land in farms .....	87,483
Farms in County .....	1,687
Total acres per farm .....	51.9
Improved acres per farm .....	19.9
Total area in:	
Corn .....	10,594
Oats .....	88
Rice .....	44
Hay crops .....	2,330
Irish Potatoes .....	551
Sweet potatoes .....	459
Other vegetables .....	2,005
Sugar cane .....	790
Strawberries .....	337
Oranges—bearing .....	2,411
non-bearing .....	2,434
Grapefruit—bearing .....	506
non-bearing .....	417
Total number of:	
Work horses and mules .....	2,037
Beef cattle .....	11,766
Dairy cattle .....	4,378
Swine .....	18,070
Chickens .....	82,412

range hogs, and a small surplus of oranges, vegetables and cane syrup constitute the sources of income. In a few sections of the county citrus fruit growing is an important commercial industry.

The area containing the farms that were studied in detail is located in the more intensive trucking and fruit growing section, within a radius of about six miles of Plant City.

### METHOD OF STUDY

Information for this study was obtained by visiting each farmer in October or November of 1917 for the farm year beginning October 1, 1916. The visit was repeated each fall for five additional years, and a record made of each year's business, together with an inventory of all farm property at the beginning and at the end of the farm year. For various reasons some of the farm records were discarded each year, but 100 usable records were obtained for each year of the study.

There are a number of advantages in studying the same farms over a series of years, rather than limiting the work to a single year. A study of the yield of crops, prices received for them, expenses incurred in operating a farm, extending over a period of years, furnishes information on the variations of many items and the changes in agriculture that could not be obtained from the study of a single year. This holds particularly true in a trucking area where relatively high priced crops are produced.

The aim was to secure data on the same 100 farms for the six-year period. It was found possible, however, to obtain data from only 96 farms for all the six years. Records on the remaining 4 farms were obtained for 4 successive years, while other farms of about the same size and organization were studied and their data were substituted for the original four farms for the other two years.

### SUMMARY OF THE FARM BUSINESS

A summary of the farm business is shown in Table 2. The data shown are averages for the 100 farms for each year, with a six-year average. The farm area is rather constant throughout the period, though there is some variation, due to the fact that the amount of additional land rented was not constant. The average size of farms was 53 acres.

The farmers in this section know their best truck soils and they usually cleared only as much as they could handle to best advantage. During the period of the study very little new land was brought into cultivation, and for that reason the crop area on these farms varied only from 18 to 20 acres,

with an average of 19 acres per farm. The acreage of woodland was reduced slightly during the six-year period and the tillable acreage increased slightly.

The value of real estate, live stock, machinery, feed and supplies on hand, etc., showed an average capital of \$6,253

Table 2—*Summary of the farm business 1917-1922, 100 farms, Hillsboro County, Florida.*

Items*	Average per farm						Six-yr aver. Acres
	1917	1918	1919	1920	1921	1922	
	Acres	Acres	Acres	Acres	Acres	Acres	
Farm area -----	52.3	53.5	53.9	54.2	52.5	51.7	53.0
Crop area -----	18.3	20.1	19.6	18.9	18.8	18.1	19.0
	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
Total Capital -----	6253	6681	7655	8306	8622	9659	7862
Total receipts -----	2596	2195	2299	3545	3551	3073	2876
Total expenses -----	1220	1432	1394	1980	2078	2225	1721
Farm income -----	1376	763	905	1565	1473	848	1155
Int. on capital at 8% -----	500	534	612	664	690	773	629
Labor income -----	876	229	293	901	783	75	526
Operator's labor -----	470	532	670	734	695	624	621
Unpaid family labor -----	141	181	166	148	152	177	161
Family income -----	1517	944	1071	1713	1625	1025	1316
Family living from farm ..			499	520	451	420	472
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Per cent return on capital -----	14.5	3.5	3.1	10.0	9.0	2.5	6.8

\*Definitions: **Capital** is the value at the beginning of the farm year of real estate, improvements, machinery, live stock, feed and supplies and cash to run the farm; it includes the value of the farm dwellings, but not the household furnishings.

**Receipts**—The farm receipts include the amount received from all sales of farm products, the increase from stock, receipts from outside labor and machine work, and rent of buildings. The increase in stock is found by adding the amount paid for stock bought to the value of livestock on hand at the beginning of the year, and subtracting this sum from the total of stock product receipts plus sales of livestock and value of livestock on hand at the end of the year. If the value of crops or supplies on hand at the end of the year is greater than at the beginning of the year, the difference is considered a receipt.

**Expenses**—These are the expenditures made during the year to conduct the farm business, including the value of unpaid family labor (except operators' labor), and depreciation of buildings and equipment. If the value of crops or supplies at the end of the year is less than at the beginning, this is considered an expense. Household or personal expenses are not included.

**Farm Income** is the difference between receipts and expenses.

**Labor Income** is the amount left for the farmer for his labor and management after 8 per cent interest on the farm capital has been deducted from the farm income. In addition to labor income, the operator has a house to live in, wood from the farm, garden products, milk, eggs, etc.

**Per cent return on capital** is found by deducting the estimated value of the operator's labor and management from the farm income and dividing the remainder by the total capital.

**Unpaid Family Labor** is work done by members of the family excluding the operator. Its value is determined on the basis of what it would have cost if the farm work performed by members of the family, had been hired at the prevailing rate of wages.

per farm in 1917; this increased yearly until in 1922 it was \$9,659, or an increase of 54½ per cent. The major portion of this increase was due to the general increase in price levels, though part of it was due to improvements, mainly from starting new citrus groves. The receipts were lowest in 1918 and 1919 and highest in 1920 and 1921, while expenses gradually increased, with the exception that they were greater in 1918 than in 1919. The average total expenses were 60 per cent of total receipts.

After deducting the expenses from the receipts the average farm income, or the combined earnings of capital and the farmer's own labor, varied from \$763 per farm in 1918 to \$1,565 per farm in 1920, the average for the six years being \$1,155. In Florida, the prevailing rate of interest is 8 per cent and the farm capital if invested at this rate would have earned an average of \$629. When this is deducted from the farm income the amount left for the farmer's own labor and management or his labor income is \$526.00.

If the value of the farmer's labor which he estimated at an average of \$621 is deducted from the farm income, there is left \$534. This divided by the total capital gives 6.8 per cent as the average earnings of the farm capital for the six-year period.

If the value of the unpaid family labor, \$161, which was included as an expense, is added to the farm income, the family income will average \$1,316 per farm. The family income represents the spendable income from the farm business provided there was no interest payable on any farm indebtedness.

The total farm expenses were 47 per cent of the receipts in 1917, and 72 per cent in 1922. Even though the average farm receipts were greater in the last years than in the first three years, the average farm expenses increased even more rapidly.

### TENURE

Ninety-five per cent of the land operated was owned by the operator, and 98 of the 100 farmers owned part or all of the land they operated. (Table 3). Croppers who use the farmer's equipment in raising the crop and receive a share of the crop for their labor are treated as laborers and are not included as tenants. It will be readily seen that tenancy is an unimportant problem in this section. No particular reason can be ascribed to the drop in 1921 of number of owners who rented additional land, unless it was a general slowing up owing to the fear of lower prices which had affected some other farm products during 1920. The total acreage of tillable land, however, operated by the 100 farmers in 1921 was practically the same as in 1920.

Table 3—*Number of farms operated by owners and by tenants. Also the average acres owned, cash-rented and share-rented.*

	1917	1918	1919	1920	1921	1922	Six-yr aver.
	No.						
Farms operated by straight owners .....	84	77	79	76	92	92	83
Owners additional, renting other land ....	13	20	19	23	6	6	15
Cash renters .....	3	3	2	1	2	2	2
	Acres						
Owned .....	49.7	50.3	50.6	51.9	49.5	49.7	50.3
Cash-rented .....	2.4	3.0	3.0	2.1	2.9	2.0	2.5
Share-rented .....	.2	.2	.3	.2	.2		.2

### UTILIZATION OF FARM LAND

The farm area includes all land operated as a unit whether owned or rented by the operator. It includes the woodland, farmstead, and other land which accompanies the tillable land. (See Table 4).

Approximately one-half of the average farm was in woodland. This does not all represent potential crop land, as the best land is usually cleared first. Some of the woodland is unsuitable for crops for reasons previously stated. In no year during this study did the sales from wood or lumber amount to as much as one per cent of the total farm receipts. Two of the farmers leased their turpentine rights and received a small royalty. Turpentining is not so common in this section as it was in former years. The timber in this area consists mainly of long-leaf pine with some oak.

### UTILIZATION OF CROP LAND

Forty per cent of the average farm area was tillable and available for crops. This proportion increased slightly during the six-year period, but there was also a marked increase in the idle tillable land on these farms. The number of farmers who had some idle land increased from 28 in 1917 to 82 in 1922. This was due in the main to the reduction in acreage of the general crops, such as corn, peanuts, and velvet beans.

The cropping system is unusually complicated in this area. The growing season is long with favorable rainfall, which allows time for the maturity of two or more crops on the same land in one season. For this reason a small tillable area may represent a comparatively large acreage of crops.

Table 4—*Utilization of farm land, 1917-1922, 100 farms, Hillsboro County, Florida.*

	Average per farm						Six-year average	
	1917	1918	1919	1920	1921	1922		
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Percent
Woodland .....	27.4	27.2	27.4	27.1	26.1	25.4	26.8	51
Crop Land .....	18.3	20.1	19.6	18.8	18.8	18.1	18.9	36
Tillable land idle .....	1.3	1.1	1.8	2.9	2.7	3.4	2.2	4
Till. land rented out .....	.2	.4	.3	.2	.3	.3	.3	—
Open untill. pasture .....	.9	.8	.9	1.3	.9	.9	1.0	2
Farmsteads, roads and waste land .....	4.2	3.8	3.9	3.9	3.7	3.6	3.8	7
Total farm area ....	52.3	53.4	53.9	54.2	52.5	51.7	53.0	100

Table 5 shows that a large percentage of these truck farms are planted to more than one crop in a given year. There was a reduction in the percentage of tillable area recropped

Table 5—*Distribution of Total Acres of Crops, 1917-1922, 100 farms, Hillsboro County, Florida.*

	1917	1918	1919	1920	1921	1922	6-Yr Av.
Crop area .....	1831	2009	1964	1886	1882	1806	1896
Acres re-cropped .....	1523	1579	1382	1198	1029	1132	1308
Total acres of crops ....	3354	3588	3346	3084	2911	2938	3204
Truck and fruit crops:							
String beans .....	199	167	247	207	153	290	210
Potatoes .....	222	366	199	225	108	110	205
Tomatoes .....	112	60	146	110	155	204	131
Cabbage .....	121	210	30	108	66	128	110
Cucumbers .....	92	54	83	71	85	112	83
Sugar cane .....	47	105	71	78	60	50	68
Sweet corn .....	44	19	57	36	54	72	47
Watermelons .....	48	5	30	71	31	62	41
Sweet potatoes .....	57	58	37	33	20	22	38
Squash .....	20	22	31	22	22	21	23
Peppers .....	22	14	12	23	14	12	16
Eggplant .....	12	17	14	7	11	5	11
Okra .....	3	10	9	10	10	6	8
Cantaloupe .....	4	13	13	1	1	—	5
Turnips .....	1	3	5	7	7	4	4
Lima beans .....	15	2	—	—	1	1	3
Peas .....	3	6	—	2	3	4	3
Onions .....	1	1	*	2	2	—	1
Other crops .....	25	41	19	12	10	1	19
Strawberries .....	228	136	93	128	155	244	164
Oranges .....	162	169	192	188	194	196	183
Grapefruit .....	7	7	12	23	25	26	17
Non-bearing citrus .....	107	122	203	240	285	302	210
General crops:							
Corn for grain .....	1069	1122	1125	890	908	643	959
Peanuts .....	156	204	307	203	152	58	180
Hay .....	222	209	245	208	271	203	226
Velvet beans .....	145	75	30	109	69	43	78
Cowpeas .....	115	65	44	10	3	110	58
Chufas .....	51	74	45	38	24	3	39
Rice .....	24	20	8	3	1	—	10
Rye .....	10	16	21	2	4	1	9
Cassava .....	7	7	15	14	7	—	8
Oats .....	3	5	3	3	—	5	6
Cotton .....	—	184	—	—	—	—	31

\*—Less than 1 Acre.

during the latter years of the study, considerable of which was in the reduction of the second crop corn acreage; also, less of the young grove acreage was intercropped.

It is possible to produce as many as three crops on the same land during the year; for example, potatoes may be planted in February, followed by corn. In the corn, cowpeas may be planted between the rows, plowed under, and the land again planted to fall potatoes which may be dug by Christmas.

Truckers in this area generally plant several crops in order to keep their labor employed, and to insure against heavy loss in case one or two crops should have low yields or bad market conditions. A large variety of crops were grown in this district, as shown in Table 5.

### PRACTICES WITH CROPS\*

**String Beans** stand next to strawberries among the vegetable truck crops in point of cash receipts in this area. Medium low land is best adapted to this crop. The crop matures early and labor requirements are low up to harvesting time. The fertilizer applied is partly available to the crop which follows. When a second crop follows, the practice is to plant the beans in wide rows, in order that the second crop may be well started before the beans are completely harvested. Car lot shipments are made from Plant City, between April 1 and April 30. The acreage of beans over the six-year period was from 1.5 to 2.9 acres per farm, with an average of 2.1 acres.

**Potatoes**—In some sections of the State potatoes are grown on a commercial scale. In this area the average is only 2 acres per farm. They may be planted in late summer and harvested in November and December, but the main crop is planted in January and February. Most of the fall crop is sold locally. Car lot shipments are made from Plant City from April 1 to May 31.

**Tomatoes**—After citrus fruits, the tomato is Florida's most important cash crop. In this area it ranks fifth in importance in acreage of the cash crops grown. It is a common practice to plant tomatoes after strawberries and they sometimes follow beans and potatoes. In such cases, they are generally started between the rows and before the first crop is harvested. About one-third of the tomato acreage on these farms was a second crop. In 1918, only .6 of an acre per farm was planted while in 1922 there were over 2 acres per farm and other years varied from 1 to 1.5 acres. Car lot

\*For more complete cultural practices of truck crops see "Vegetable Crops of Florida," by A. P. Spencer, Bulletin 44, Agricultural Extension Division, University of Florida.

shipments are made from Plant City from April 1 to May 31. It is important to get tomatoes to market early.

**Cabbage**—It was difficult to determine for every season the exact yields of cabbage, for when the market price was too low to pay for harvesting and freight, the crop was not harvested, but was allowed to rot in the field. The price of cabbage varies widely. Some years small returns were realized, while other years the crop was very profitable. The crop years 1918, 1921 and 1922 are good examples of years when the price was so low that a considerable proportion of the crop was not harvested. In 1919 and 1920 the prices were good and excellent profits were made. This condition is reflected in fluctuations of acreages. In 1919 for instance, the cabbage acreage was only one-seventh of the 1918 crop.

When cabbage is a poor crop in the north, or if it spoils in storage, Florida cabbage brings a good price because it has little competition in the market. If the crop is poor in the north, this fact may be known in time to influence plantings in this area.

**Cucumbers**—Car lot shipments of cucumbers are made from Plant City from March 1 to May 31. As a rule the earlier the product is marketed the better the price. Some grow them for the late fall market. The average acreage for this crop was .8 of an acre per farm over the six-year period, ranging from .5 acres in 1918 to 1.1 acres in 1922 per farm.

**Sugar cane** is very generally grown in this area. It is important both as a cash crop and as a contribution to the family living. About two-thirds of the farmers grow sugar cane with an average of one acre per farm. Many of the farmers have their own small cane mills and boiling kettles. The crop is generally marketed as syrup in gallon pails and sold locally. About 80 per cent of the crop was sold and 20 per cent used at home.

**Peppers** may be grown most all the year. They are slow in fruiting and come in for both good and poor markets. It is not a very important crop in this area. From .1 to .2 of an acre per farm was planted during the six-year period and only 17 per cent of the farmers grew the crop.

**Egg Plant** produces over a long period, but is hard to get started if the ground is wet and cold. Some grow this crop between the rows in young groves. The acreage was about .1 of an acre per farm for all years.

**Squash** is an easy crop to grow and the labor requirements are low. The crop is relatively unimportant from the acreage standpoint, there being only .2 of an acre per farm except in 1919 when it was increased to .3.

Watermelons are occasionally raised for market in this area. Earliness is very necessary in order to get this crop on the market ahead of Georgia melons. The average acreage per farm for the six-year period was .4 of an acre with wide variations from year to year.

Besides the truck crops which have been mentioned, sweet corn, sweet potatoes, okra, onions, English peas, turnips, beets, lettuce, celery, lima and navy beans and cantaloupes were grown on the farms studied. While not generally grown, most of these crops are not uncommon to the area and they contribute to the general farm receipts. These crops are grown in patches on individual farms and are sold, in the main, on local markets.

**Strawberries**—Plant City is widely known for its strawberries. The planting of this crop is restricted largely to the amount of cultivating and harvesting that the family and dependable hired labor can do. This crop is often planted by croppers, since the labor requirements are such that all members of the family can help with the work, and the returns to both cropper and landlord were generally highly satisfactory.

The largest planting was made in 1922, although in 1917 the acreage was almost as large, and prices were the lowest. In 1917 the blooms were killed in December and they were again injured during the February freeze. In 1918 the acreage was greatly reduced and this was an unfavorable year, but prices were somewhat better. In 1919 there was a further reduction in acreage, the yield was low but prices were highest, being 2.5 times as high as that received in 1917. This gave the strawberry industry a great impetus and plantings increased each of the remaining three years.

Prices fell gradually from 1919 to the end of the study. The years 1920, 1921 and 1922 gave good yields and splendid returns; the highest average return per farm from this crop was in 1922.

Strawberry plants were sold from a number of farms. These were generally surplus plants, but in some instances farmers were in the business of growing plants for sale, along with their other trucking operations.

**Citrus Fruits**.—On the 100 farms studied in 1917, 68 had plantings of citrus fruits, and the number increased to 86 in 1922.

Most of the bearing groves are oranges, the grapefruit acreage being less than one-tenth that of oranges; very few have tangerines, and these were limited to a few trees on individual farms. Most of the oranges in bearing are either seedlings or pineapple, while other varieties are coming into

bearing. Most of the budded varieties were grafted on sour orange stock. Trees are quite generally bought from nurseries, though some farmers propagate their own trees. Most growers here interplanted their young groves with truck crops. It is an economical way to develop a grove because the residual fertilizer applied to the truck is in most cases sufficient for the trees, though in some cases this method may prove detrimental if unusual amounts of fertilizer are applied. There are some groves in the area that are well managed, but as a general thing they did not receive the same care that they do in other parts of the State where receipts from groves form the only source of income.

In the infancy of the grove industry, plantings were restricted to home use. Tampa markets were later developed and fruit was hauled in ox carts to this city and shipped by boat. The most common price for oranges was one cent each. After railroads were built citrus fruit became one of the important cash crops, but the freeze of 1895 was a great setback to the industry. In recent years, Hillsboro County has made extensive plantings, but not on a large commercial scale on the particular farms studied. The acreage of young groves on these farms has nearly trebled during the six-year period studied and the bearing acreage increased about one-half. It is claimed that the total value of citrus crops shipped from Plant City is greater than that of strawberries, but on the farms studied, citrus fruit ranks second to strawberries in point of receipts for any single year.

### General Crops

**Corn** is planted in this area as a general crop, and about 50 per cent of the acreage is interplanted or follows another crop. When it follows truck, corn requires no additional fertilizer. Thus the fertilizer which might otherwise be leached is utilized to make feed for livestock. On these farms corn followed potatoes, beans, cabbage, strawberries, tomatoes and cucumbers.

During 1917, 1918, and 1919, there was an average of about 11 acres of corn per farm; this was gradually decreased to 6.5 acres per farm in 1922. The acreage for this crop is largest of any of the crops grown, but it does not receive so much attention as is given other crops.

Corn is rarely sold, but is utilized on the farm. The grain is difficult to keep in Florida on account of weevils unless it is specially treated, and this is not a common practice in the area. Considerable fodder was formerly "pulled" for roughage, but bundles harvested were reduced from 500 per farm in 1917 to 75 per farm in 1922. "Pulling" fodder is a slow, tedious process and with the increase in wages, hay is being substituted as a roughage.

**Cotton.**—Long staple cotton was formerly important in the Plant City area, but during the progress of this study there was no cotton raised except in 1918. That year this crop was grown on 25 farms, totaling 184 acres. No doubt the high price of cotton caused the abrupt revival of cotton planting, but the low profits this year induced just as abrupt a discontinuance of the crop.

**Hay and pasture crops.**—Crab grass volunteers after truck crops. Over the six-year period the average hay acreage was 1.6 acres per farm, of which 96 per cent was after other crops. Farmers seldom sell any hay, but plan to save what they need for feeding livestock.

The average acreage of other hay was .6 acres per farm. Beggar weed is well adapted to the sandy soils of Florida, and is used for hay and green manure crop. After it has become once established it reseeds itself. Cowpeas, oats, and millet are occasionally cut for hay.

Chufas and peanuts are used for hog pasture. It is a very common practice to interplant corn with peanuts, cowpeas and velvet beans in the Plant City area for pasture and soil improvement.

**Other General Crops.**—Rice and rye were grown for hay and grain. The growing of rice was practically discontinued the last three years of the study, and the same may be said of rye. Cassava was planted in small acreages, the roots being used for hog feed. There were no pecan groves, but occasional trees from which the nuts were sold.

### CROP YIELDS

An important factor in successful farming in this sect<sup>1</sup> as in any other is good crop yields. There was much variation in average yields from year to year (Table 6) for

Table 6—*Average yield per acre for the principal crops, 1917-19.  
100 farms, Hillsboro County, Florida.*

Crops	Unit	Average yield per acre						Six- aver
		1917	1918	1919	1920	1921	1922	
Potatoes	Bushels	99	75	33	40	64	68	63
String beans	Hampers	75	110	45	61	101	62	76
Cabbage	Crates	133	102	118	151	48	42	99
Tomatoes	Bushels	65	92	73	68	128	49	79
Cucumbers	Crates	162	150	84	89	118	58	110
Sugar Cane Syrup	Gallons	279	206	202	178	137	198	200
Squash	Crates	57	22	44	58	65	36	47
Egg Plant	Crates	180	30	123	114	145	78	112
Peppers	Crates	138	170	131	151	93	67	125
Sweet Corn	Crates	16	26	15	24	44	11	23
Strawberries	Quarts	1948	1932	1515	2268	2476	2120	2043
Oranges bearing	Boxes	167	49	105	122	158	106	118
Field Corn	Bushels	15	18	14	15	16	15	15

crops, with more pronounced differences on individual farms. The yearly variations in yields are due mainly to weather conditions—droughts, excessive rains and frosts. In 1919 and 1920, for instance, yields were low because of excessive rains which drowned out the crops on low-lying fields. In 1922 there was an extended drought which seriously retarded the growth of spring crops and caused many partial crop failures and some complete failures. The low yield of strawberries in 1919 was due to a frost in January and wet weather in February and March.

The land in this district is flat and unless the farms are ditched, heavy rains may cause crop damage by flooding. Much ditching was done in 1920 and 1921. Irrigation is not commonly practiced, though seven of the 100 men had small overhead irrigation systems. Markedly increased yields were obtained in dry seasons on the small irrigated acreages over the unirrigated. The limited data available hardly shows whether or not the investment in an irrigation system should prove profitable over a series of years. No new irrigation systems were installed on these farms during the period of the study.

There is always danger of light frosts which will damage the winter and early spring crops. Many of the growers placed pine needles between the rows of strawberries to use in covering the berry plants on frosty nights. This covering protects the blossoms and fruit from the effects of slight frosts. Early cucumber plants were frequently covered with wooden troughs on cold nights. No artificial heaters were used to counteract the effects of low temperatures on frosty nights. The damage from frosts, during the six-year period was not so great as that from droughts and heavy rains.

### PRICES RECEIVED FOR CROPS

The results show great fluctuations in prices of truck crops. The six years covered by this study was a period of many changes of price levels. This general condition partly accounted for the higher prices prevailing in 1919 and 1920. The 1921 and 1922 prices, however, did not drop to the same degree that general farm products fell. Cash crops are out of season crops for the northern markets, and the important factor in yearly price fluctuations is the supply. These crops are on the order of specialties and are perishable, with a relatively small production, and the demand at a profitable price to the grower may easily be over supplied.

The wide ranges of yearly average prices for the period studied are shown in Table 7. The prices as given in this table are for the products packed and delivered to the ship-

ping station, with the exception of tomatoes and oranges. Tomatoes are usually harvested and delivered by the farmer to the dealer who does the packing and furnishes the container. The orange buyer usually pays the farmer for the fruit "on the tree," and does his own picking, packing, and marketing.

Table 7—*Average price received for the principal crops, 1917-1922, 100 farms, Hillsboro County, Florida.*

Crops	Unit	Average price per unit						Six-yr aver.
		1917	1918	1819	1920	1921	1922	
		Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	
Potatoes	Bushels	1.98	.97	2.33	3.42	2.05	2.38	2.19
String Beans	Hampers	1.27	1.47	2.13	1.61	2.17	1.77	1.74
Cabbage	Crates	1.26	.65	2.47	2.95	.91	.80	1.51
Tomatoes	Bushels	.93	2.11	1.58	2.42	2.07	1.99	1.85
Cucumbers	Crates	1.02	1.74	1.43	2.10	2.14	1.60	1.67
Syrup	Gallons	.79	.95	1.23	1.46	.85	.61	.98
Squash	Crates	.71	1.72	1.61	1.78	1.73	2.21	1.63
Egg Plant	Crates	1.86	1.78	1.78	1.85	2.05	1.00	1.72
Peppers	Crates	1.02	1.37	1.48	1.78	1.58	3.44	1.78
Okra	Crates	1.44	2.33	1.95	1.97	1.72	1.22	1.77
Sweet corn	Crates	1.38	1.86	2.02	2.59	1.86	2.84	2.09
Strawberries	Quarts	.15	.18	.38	.37	.34	.31	.29
Oranges	Boxes	1.06	2.02	1.98	2.08	1.85	1.23	1.70

Potato prices ranged from \$0.97 to \$3.42; string beans, from \$1.27 to \$2.17; similar wide ranges will be noted for the other crops. Strawberries, the principal crop of the region, ranged from 15 cents to 38 cents a quart. The price of strawberries held up well during the last four years, more than double the prices received in 1917, making this the most profitable crop. This area has thus far no real competitor in producing strawberries for the early winter market.

The price received has an important effect on the acreage planted the following year. It is the practice of many of the farmers to plant larger acreages of a crop following a year of high prices than in a year following low prices. String beans, for instance, were high in price in 1921, and in 1922, 53 per cent of the farmers increased their acreage while 34 per cent had a smaller acreage. In 1918, however, following the low prices of 1917, only 27 per cent had a larger acreage and 58 per cent decreased their acreage. This tendency was true with all crops and frequently the change was made at the wrong time. The farmer who had developed a fairly definite cropping system and adhered to it was usually more successful over a series of years than one who speculated heavily on one crop one year and some other crop another year.

The average cash receipts per acre for the important crops

are shown in Table 8. The yearly variations of average returns are the results of variations in yields per acre and price received per unit. The occasional years of high returns per acre is what tempts truck farmers to plunge in certain crops the following year.

Strawberries are easily in the lead in receipts per acre for the period studied and for each of the years. Peppers and egg plant rank high, but are not so commonly grown as some of the other truck crops.

Table 8—*Yearly variation in receipts per acre of important crops, 1917-1922, 100 farms, Hillsboro County, Florida.*

Crops	1917	1918	1919	1920	1921	1922	Average 1917-1922
	Dols.						
Irish potatoes	196	73	77	137	131	163	130
String beans	95	162	95	97	218	105	129
Cabbage	169	67	288	450	45	35	176
Tomatoes	60	198	116	164	267	99	151
Cucumbers	165	258	119	187	253	92	179
Squash	41	37	71	102	112	86	75
Egg plant	307	51	226	196	297	74	192
Peppers	140	233	195	270	147	232	203
Okra	97	60	134	193	156	227	145
Sweet corn	22	49	31	62	82	32	46
Strawberries	294	352	568	848	844	665	595
Oranges bearing	169	98	198	254	287	129	189

## MARKETING PRACTICES

The question of marketing is one that the farmers of the Plant City area have well in hand compared with many other agricultural regions.

Plant City is widely known as a strawberry and vegetable market. Many buyers are stationed about the platforms during the shipping season, who compete with each other for the products. Some buyers represented commission houses and occasionally vegetables were consigned, but cash was usually paid for the products at the platform. There is also competitive rail transportation for shipping fruits and vegetables into northern markets, which is a decided advantage to the grower.

Citrus fruits are bought sometimes for a lump sum, on the trees. Others sell at a stipulated price per box in the grove. Thus the grower has no responsibility as far as picking and packing are concerned, since this is done by the buyer.

Strawberries are washed and packed in quart boxes ready for shipment when brought to the platform; they are then placed by the buyer in refrigerator boxes holding from 60

to 80 quarts in which they are shipped to northern markets by express.

String beans are packed as gathered, and sold in 28 quart hampers. Tomatoes are picked a little green and are sold loose to buyers, who grade, pack and ship in six-basket crates or hampers.

Egg plant, okra, squash and peppers are brought to market in crates; cucumbers are sold in crates or hampers; potatoes in hampers or bushel boxes. Cabbage is occasionally shipped in cars in bulk when the price is low, but usually in 100 pound crates, or in hampers holding from 45 to 60 pounds.

### CROP COMPETITION

Fig. 3 shows the more common dates for preparation of the land, planting of the crop, and harvesting season for some of the crops most commonly grown in the Plant City area. It will be noticed that they all compete for labor at about the same time, and the substitution of one crop for another one would not seriously affect the distribution of labor throughout the season, except that certain crops require more labor per acre than others. Strawberries, for instance, have a high labor requirement and the acreage per farm is limited.

Table 9 shows the variation in the percentage of farmers growing each of the important crops in the different years. Considerable changes from year to year in the cropping system will be noted. As an illustration, the cabbage plantings may be studied. The percentage of farmers growing this crop varied from 83 in 1918 to 35 in 1919. Of the 100

Table 9—*Number of farms on which each crop was grown, 1917-1922, 100 farms. Hillsboro County, Florida.*

Crops	1917	1918	1919	1920	1921	1922
Strawberries	95	85	65	75	84	95
String beans	83	75	78	77	64	78
Tomatoes	65	52	80	66	74	79
Irish potatoes	81	96	82	90	74	64
Sweet potatoes	44	64	67	60	45	18
Cucumbers	57	39	61	59	62	58
Egg plant	9	6	12	6	8	3
Okra	5	9	14	17	18	9
Squash	21	14	24	33	28	15
Peppers	16	18	18	24	13	15
Cabbage	51	83	35	60	50	60
Sweet corn	31	16	35	21	42	32
Sugar cane	57	68	80	72	63	48
Oranges, bearing	49	52	57	60	65	63
Field corn	96	100	95	98	96	86
Peanuts	37	48	61	45	30	12
Velvet beans	29	23	14	18	14	12
Chufas	24	34	23	20	12	2

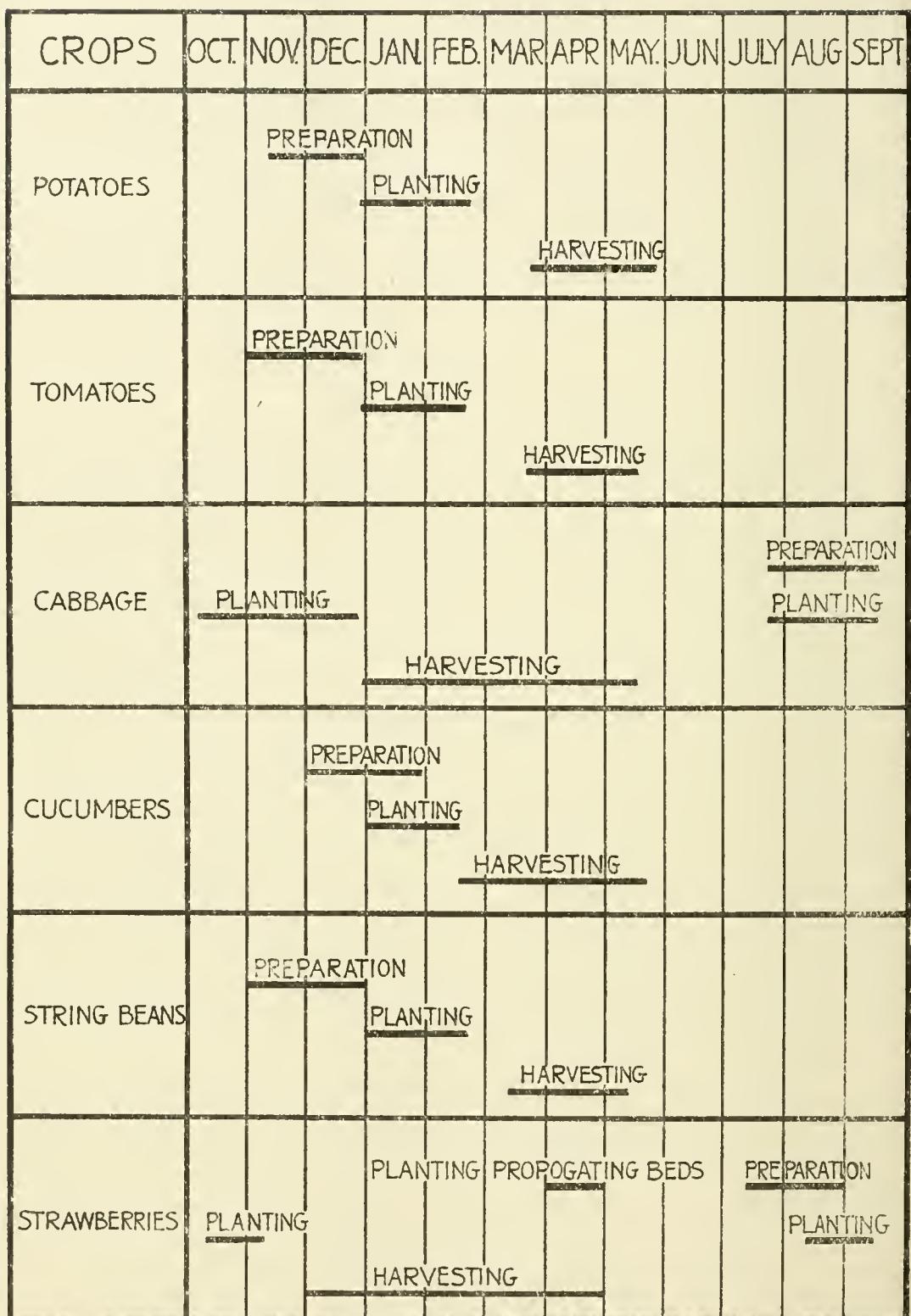


Figure 3—Seasonal distribution of principal crop operations—six crops—Hillsboro County, Florida.

farmers, only 13 planted cabbage each of the six years and 6 did not grow any during this period; sixteen planted some every year but one, and 13 planted it only one year out of the six. The same number grew cabbage in 1920 and 1922, but of the 60 who grew it in 1920, 16 did not grow it in 1922. This is mentioned to show the flexibility of the cropping system.

### USE OF FERTILIZER

All soils in the area, to secure best results, require fertilizer. Very little planting of cash crops is done without the use of fertilizer. Most of it is purchased ready mixed, and the grower usually designates the kind used by the name of the brand rather than by its analysis. Small quantities of nitrate of soda and cottonseed meal were applied to supplement the complete fertilizers.

The average amount of fertilizer used per acre for the different crops was secured for four years only and is shown in Table 10. These data show the relative amount of fertilizer used per acre for the different crops. The practice of individual farmers varies considerably, however, in the amount applied per acre on the same crop. With strawberries, for instance, in 1922 the average application of fertilizer per acre was 1,873 pounds. Of those growing strawberries, 47 per cent applied 2,000 pounds or more per acre, and 35 per cent applied from 1,000 to 1,500 pounds per acre. Similar variations hold true with the other crops. It is expected there would be differences in rates of application, because the soil types vary, as do also the general conditions as to humus content and use of legume crops as green manure. Allowing

Table 10—*Variations in the amount of fertilizer applied per acre on different crops, 1919-1922, 100 farms, Hillsboro County, Florida.*

Crop	1919	1920	1921	1922	Average 1919-1922
	Amount per acre Pounds				
Sweet corn	583	565	588	704	610
Squash	1127	896	773	1002	950
Egg plant	1253	1491	909	980	1158
Irish potatoes	1132	1342	1087	1335	1224
Tomatoes	1012	1136	930	989	1017
Cabbage	1425	1568	1359	1461	1453
String beans	892	832	970	1050	936
Cucumbers	1355	1198	1264	1337	1288
Oranges	1138	1341	1372	1424	1319
Strawberries	1586	1600	1833	1873	1723

for unusual conditions of the soil, the average application of fertilizer as given in Table 10, should be a safe guide.

In sorting the farms by the amount of fertilizer applied, for the important crops it was found that on an average the farmers who applied one-third more fertilizer per acre than the average had about 20 per cent better yields than those who applied one-third less per acre than the average. This would indicate that with average soil conditions in this area, the four-year average rate of application should prove profitable, but that probably the most profitable rate of application would be somewhat more than the average.

## LIVESTOCK

In the early days this country was an open range, so naturally the raising of cattle and hogs was an essential part of the agricultural practice. It is still an important enterprise on many general farms but not on the small intensive farms studied in this survey. (Table 11). Cattle are mostly of native stock and run loose on the range, so they are little expense to their owners. Cattle are not being dipped in this area to any great extent, so they are usually tick infested. Prices of cattle are quite low.

There is little selection of breeding stock and naturally no improvement occurs. By bringing in better sires and ridding the range of the bulls now present, the quality of cattle could be greatly improved. If the same methods of tick eradication were followed, that have succeeded in other regions of the South, the cattle industry would be greatly improved and the prevailing low prices materially increased. Cows are not as a rule given the best care, so the returns are low. In fact, most cows are kept to supply milk for family use rather than for market purposes.

Native hogs as a rule are small, poorly nourished and of an inferior type. This kind of livestock shows that the farmers have not made the same progress in this line of agriculture that they have in crop production. Some, however, have good hogs and no doubt better breeds will, in time, supplant the type which now predominates in the area.

Table 11—*Six-year average number of the different kinds of livestock, 1917-1922, 100 farms, Hillsboro County, Florida.*

Kind	Average number per farm
Work stock	1.7
Colts	.1
Milk cows	1.5
Range cattle	5.0
Hens	70.0
Hogs	9.0

Small flocks of chickens are kept on most farms. Some farmers have gone into the poultry business as a side line and have made a success. There are reasons for believing that many could double the size of their flocks to advantage. Green feed can be grown the year round, and the farm flock can do the harvesting. Rye, rape and winter oats may be grown for forage in winter and the early part of the year; peas and other green crops may follow later. The soil will produce most of the feed necessary. However, it is usually more economical to buy the grain feed and plant the land to other crops.

The housing question on account of the mild winters is much less expensive than it is further north, since it is necessary only to shelter poultry at night, and from the frequent showers at certain seasons.

### FARM RECEIPTS

Sales of strawberries, oranges, beans, potatoes, tomatoes, cabbage, cucumbers, sugar cane, peppers, and egg plant, in the order named, constituted the important receipts over the six-year period; but for individual years the order of the value of the crops changed. (Tables 12 and 13). Receipts from strawberries were by far the most important, ranging from 21 to 53 per cent, with a six-year average of 33 per cent of the total. Receipts from citrus fruits were next in importance, ranging from 8 to 18 per cent with a six-year average of 13 per cent. (Fig. 4). None of the other crop sales amounted to as much as 10 per cent of the total receipts for the period of the study.

The proportion of the total farm receipts from crops ranged from 84 per cent in 1918 to 95 per cent in 1922. (Fig. 5). The drop in crop receipts in 1918 was mainly due to the low prices received for potatoes and cabbage, the low yield of citrus fruit and the reduction in acreage of strawberries. The very marked increase in crop receipts in 1920 was accounted for by the increases in acreage and yield per acre of strawberries and by the increases in acreage and price of potatoes and cabbage.

The receipts from livestock and livestock products ranged from 12 per cent of the farm receipts in 1918 to 4 per cent in 1922, with a six-year average of 7 per cent. The relatively high returns from livestock in 1918 and 1919 was due mainly to increased prices during war time. The livestock enterprise was not expanded to any extent during these two years, but was reduced materially during the last three years of the study. The six-year average receipts from hogs were slightly more than from cattle and dairy products, while the average

Table 12—*Distribution of farm receipts, 1917-1922, 100 farms, Hillsboro County, Florida.*

Sources of income	Average per farm						Six-yr. aver.
	1917	1918	1919	1920	1921	1922	
Crops:	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
Strawberries .....	671	463	513	1,037	1,278	1,515	913
Oranges .....	288	167	381	473	563	258	355
String beans .....	190	270	235	202	330	303	255
Irish potatoes .....	436	268	152	308	142	180	248
Tomatoes .....	67	117	169	180	414	201	191
Cabbage .....	204	140	86	486	29	45	165
Cucumbers .....	151	139	100	133	215	103	140
Sugar cane .....	61	65	103	125	81	55	82
Berry plants .....	31	16	16	48	30	107	42
Peppers .....	31	33	23	62	21	28	33
Grapefruit .....	9	9	29	40	57	27	28
Sweet corn .....	10	9	18	22	44	23	21
Egg plant .....	37	9	32	14	33	4	21
Squash .....	8	8	22	23	25	18	17
Sweet potatoes .....	42	6	17	9	16	5	16
Okra .....	3	6	12	21	15	14	12
Corn for grain .....	10	17	19	10	9	1	11
Melons .....	11	1	5	34	9	4	11
Hay .....	2	1	2	2	1	*	2
Other crops .....	50	136	24	45	33	20	51
Total .....	2,312	1,880	1,958	3,274	3,348	2,911	2,614
Livestock and products:							
Dairy products .....	3	8	7	8	4	3	5
Cattle .....	48	68	64	51	16	11	43
Horses and colts .....	6	5	2	1	1	1	3
Hogs .....	59	102	71	39	21	9	50
Poultry .....	28	28	29	22	37	24	28
Eggs .....	56	63	69	72	60	81	66
Workstock .....	2	2	4	15	3	—	5
Total .....	202	276	246	208	142	129	200
Miscellaneous:							
Increase feed .....	55	4	—	—	27	—	14
Man labor off farm .....	14	20	55	19	11	15	22
Team labor off farm .....	4	5	24	13	11	4	10
Lumber and wood .....	3	2	*	*	—	6	2
Rent .....	2	2	3	—	*	1	2
Other receipts .....	4	6	13	31	12	7	12
Total .....	82	39	95	63	61	33	62
Grand total .....	2,596	2,195	2,299	3,545	3,551	3,073	2,876

\* Less than one dollar.

Table 13—*Rank of ten important crops in receipts per farm, 1917-1922, 100 farms, Hillsboro County, Florida.*

Crop	Rank in 1917	Rank in 1918	Rank in 1919	Rank in 1920	Rank in 1921	Rank in 1922
Strawberries	1	1	1	1	1	1
Oranges	3	4	2	3	2	3
String beans	5	2	3	5	4	2
Potatoes	2	3	5	4	6	5
Tomatoes	7	7	4	6	3	4
Cabbage	4	5	8	2	12	9
Cucumbers	6	6	7	7	5	7
Sugar cane	8	8	6	8	7	8
Peppers	11	9	10	9	14	10
Egg plant	10	12	9	15	10	16

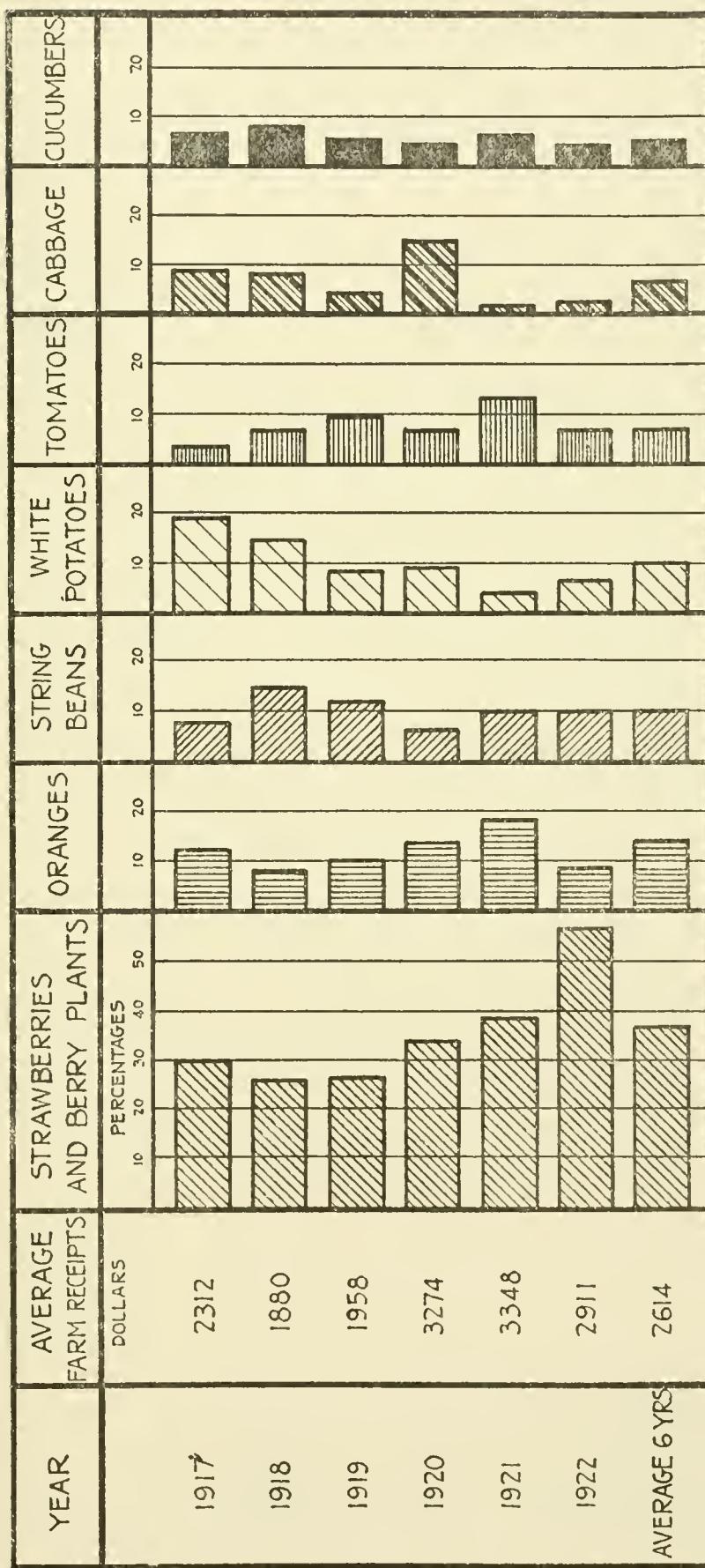


Fig. 4. Proportion of the crop receipts from each of the principal crops.—The crops listed above constituted about 90 per cent of the total crop receipts. The strawberry crop was easily the leader, ranging from 26 per cent in 1918 to 56 per cent in 1922. None of the other crops brought in as much as 20 per cent of the total crop receipts in any one year. All of the crops showed wide variations in relative receipts over the six-year period.

receipts from poultry and eggs were approximately equal to those from cattle and hogs combined.

The receipts from outside man and team labor were relatively unimportant. A large part of this was picking oranges and hauling them to market. Considerable wood was sold from a few farms in 1922. Cane mill toll for grinding sugar cane for neighbors was an important item of receipts on a few farms.

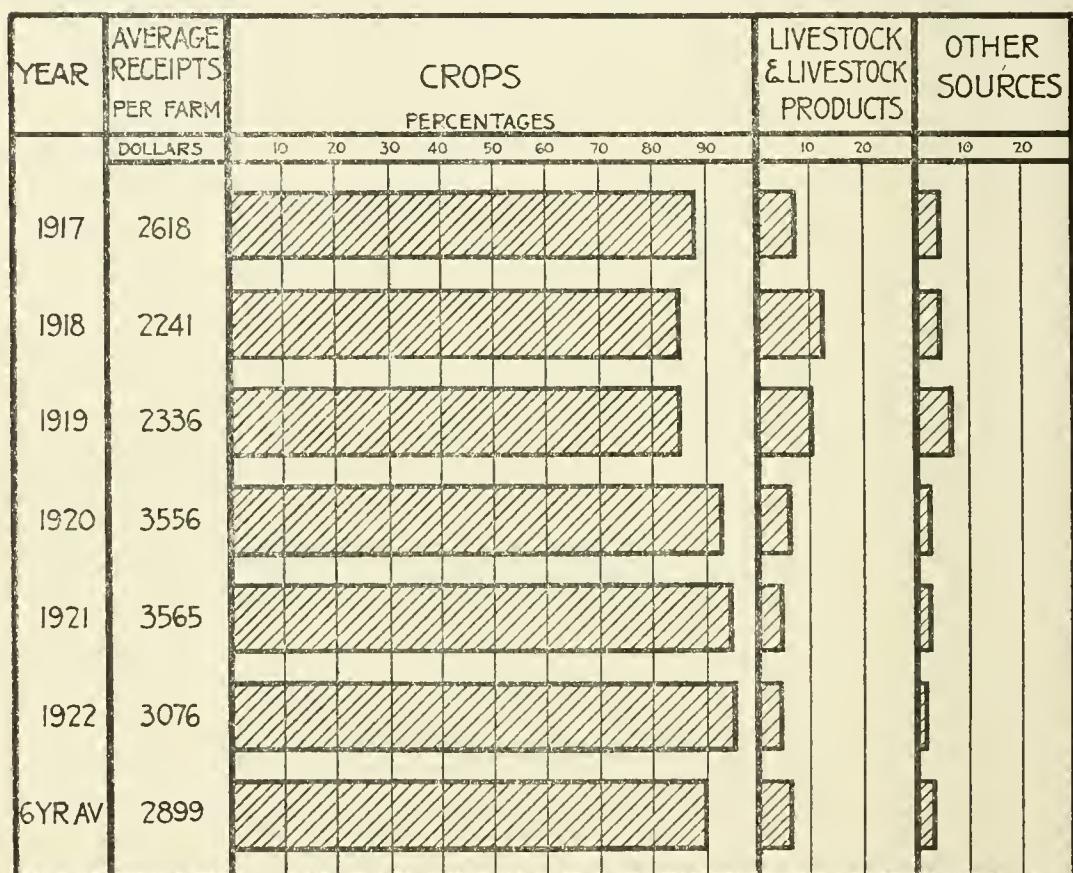


Fig. 5. Proportion of farm receipts from crops, livestock and other sources.—In no year did the receipts from crops constitute less than 84 per cent of the total farm receipts. In 1918 the livestock receipts were most important, bringing in 12 per cent of the total receipts; however, for the period of the study they constituted only 6 per cent of the total receipts.

### FARM EXPENSES

The expenses on the 100 farms studied were 47 per cent of the receipts in 1917; 66 per cent in 1918; 61 per cent in 1919; 56 per cent in 1920; 59 per cent in 1921, and 72 per cent in 1922. The expenses increased each year except in 1919 when they dropped, which was due mainly to a decreased acreage in strawberries. (Table 14).

Labor constituted the most important item of expense. Under the wage system, men worked for a stipulated price, and sometimes boarded with the farmer. In other cases

they lived nearby, and worked wherever they found employment. Some laborers lived in tenant houses and worked when the farmer on whose land they lived needed their services, and elsewhere at other times.

Under the cropper system, land was furnished to the cropper, who instead of receiving a specified sum for his labor, received a share of the crop. In the most common arrangement the cropper paid half of the expense for seed, containers, and fertilizer, performed all labor in producing and harvesting the crop, and received one-half of the gross sales. No established rule was in vogue in the district for all crops. The cropper took the responsibility for all labor and shared the crop risks. His interest in the crop was an incentive for giving close attention to his crop, and for utilizing his family labor efficiently, in cultivating, picking and packing.

Table 14—*Distribution of farm expenses, 1917-1922, 100 farms, Hillsboro County, Florida.*

Items of expense	1917 Dols.	1918 Dols.	1919 Dols.	1920 Dols.	1921 Dols.	1922 Dols.	Average 1917-1922 Dols.
<b>Labor:</b>							
Hired labor	237	178	168	233	247	215	213
Contract labor	149	147	77	153	200	181	151
Cropper labor	9	38	50	169	302	350	153
Family labor	141	181	166	148	152	177	161
<b>Fertilizer</b>	243	324	339	432	380	396	352
<b>Containers</b>	110	162	104	200	155	113	141
<b>Seed</b>	83	113	103	122	80	111	102
<b>Feed:</b>							
Grain	61	62	95	129	112	134	99
Hay	2	8	3	6	4	2	4
Auto farm use	7	27	63	85	97	122	67
<b>Repairs:</b>							
Machinery	11	11	11	11	11	11	11
Dwelling	9	13	17	16	16	17	15
Other buildings	11	8	4	5	5	5	6
Fences	6	7	7	8	8	8	7
Irrigation system	1	--	*	--	--	*	*
<b>Depreciation:</b>							
Machinery	21	22	29	30	38	38	30
Dwelling	33	33	36	37	38	40	36
Other buildings	16	18	18	20	20	23	19
Irrigation system	4	5	5	6	6	8	6
<b>Taxes</b>	23	26	31	41	44	49	36
Decrease feed	--	--	4	27	--	98	21
Decrease stock	18	23	39	70	119	80	58
<b>Miscellaneous:</b>							
Fuel and oil	9	7	2	2	9	9	6
Horseshoeing	6	6	5	4	4	2	5
Spray material	1	2	2	6	9	8	5
Telephone	--	--	4	6	6	7	4
Insurance	2	2	4	2	5	5	3
Machine work	3	5	3	1	3	1	3
Veterinary	2	3	3	3	2	1	2
Other items	2	1	2	8	6	14	5
<b>Total</b>	1220	1432	1394	1980	2078	2225	1721

\*Less than one dollar.

Contract labor is work done by the piece. Citrus fruits are picked and hauled by the box; strawberries are picked

and packed by the quart; and potatoes, string beans, tomatoes and cucumbers are often harvested by this class of labor.

Family labor is work done by members of the family other than the operator. This class of labor is commonly used when available in truck areas, especially during the busy season of cultivating and harvesting crops.

The amount of contract labor hired varied with the acreage of crops which was harvested mainly by this type of labor, and with the proportion of these crops raised by croppers. This is strikingly brought out in comparing the number of months of different classes of labor on these farms in 1917 and 1922. (Table 15). The acreage of both strawberries and string beans was considerably larger in 1922, and yet the months of contract labor in both these years was less. The increased acreage of these crops produced by cropper families resulted in less contract labor being hired as such, the cropper families harvesting their own crops.

The number of months of cropper labor increased yearly from 1917 to 1922, due mainly to the high price and scarcity of wage labor. The irregular earnings per month of cropper labor were due to the yearly variations in yields and prices received for crops produced. The higher prices of strawberries during the latter years of the study made good wages for the croppers and encouraged this type of labor.

Table 15—*Number of months and wages per month (except operator), 1917-1922, 100 farms, Hillsboro County, Florida.*

Kind of labor	1917		1918		1919		1920		1921		1922		Av. 1917 to 1922
	Mos.	Val. per mo.											
	No.	Dol.											
Contract	334	45	271	54	104	74	240	64	302	66	281	64	59
Regular	743	32	464	38	337	44	402	58	528	47	591	36	41
Cropper -1	25	36	79	48	130	39	218	77	382	79	639	55	62
Family -2	444	32	499	36	430	39	366	41	315	48	436	41	39
Total	1,546		1,313		1,041		1,226		1,527		1,947		

-1 The wages per month of the cropper labor was determined by dividing the net value of the cropper's share of the crops by the number of months of labor devoted to these crops.

-2 Estimated by farmer.

In 1917 only 3 of the 100 farmers produced crops by the cropper system and in 1922, 34 had croppers. Over the six-year period the most common crop produced by cropper families was strawberries. Three-fourths of the croppers grew strawberries with one or two other truck crops.

Fertilizer is one of the important items of expense, constituting about 20 per cent of the total expenses. This item

varied with the cost per ton, though there was a tendency to use slightly more per acre during the last three years than during the first three. The lowest cost per ton was \$32.50 in 1917, increasing to \$59 per ton in 1920, and then decreasing to \$43 per ton in 1922. Somewhat higher grades were applied to strawberries and citrus fruits than to vegetables.

The cost of containers per acre varied considerably. This is partly due to changes in cost per unit, but largely on account of yield. The range in average cost per acre of this item during the four years, 1919 to 1922, was as follows:

Sweet corn	from	\$ 3.72	to	\$ 8.53
Squash	from	8.81	to	29.12
Egg plant	from	23.50	to	31.48
Sugar cane	from	27.29	to	32.15
Potatoes	from	8.60	to	14.46
Tomatoes	from	9.73	to	24.49
String beans	from	9.09	to	19.72
Cucumbers	from	8.54	to	26.52
Peppers	from	20.62	to	43.40
Okra	from	20.00	to	26.32
Strawberries	from	13.35	to	29.39

The average cost of containers was \$141 per farm for the six-year period.

The highest expense for seed was in 1920 and the lowest in 1921. The average amount spent per farm over the six-year period was \$102, lacking only \$1 per farm of equaling cost of hay and grain purchased. The range in average cost of seed per acre was as follows for the four years, 1919 to 1922:

Sweet corn seed	from	\$ .98	to	\$ 1.39
Squash seed	from	1.78	to	3.56
Egg plant	from	3.08	to	11.00
Sugar cane	from	3.64	to	28.64
Potatoes	from	16.28	to	21.48
Sweet potatoes	from	2.27	to	12.00
Tomatoes	from	2.33	to	3.72
Cabbage	from	3.97	to	5.49
String beans	from	8.10	to	13.11
Cucumbers	from	4.52	to	4.88
Peppers	from	6.39	to	9.36
Okra	from	3.25	to	7.09

The cost of seed varied with the price per unit, the number of acres planted and the amount of replanting necessitated by adverse weather conditions.

The use of the automobile for the farm has become an important item of expense. In this analysis the automobile is not listed in the farm equipment inventory, but an annual charge is determined including depreciation, repairs, fuel, and interest. The proportion of this charge that the mileage covered for farm business is of the total automobile mileage, is included as a farm expense. In 1917, 24 per cent of the farmers had automobiles, and in 1922, 85 per cent had them.

The average annual expenditures for repairs of machinery and buildings increased only slightly over the six-year period. The depreciation charges, however, increased about one-third during the period. The repair charges on an average were about one-third as much as the depreciation charges. The six-year average depreciation charge for machinery per farm was \$30, and the actual expenditure for new machinery was \$46, including some entirely new types of machinery, such as tractors, trucks, and sprayers.

The expenditures for taxes constituted a small part of the total farm expenses. The taxes, however, more than doubled from 1917 to 1922.

In this highly developed truck section, with citrus groves included, the cost of spray material would be expected to be

Table 16—*Distribution of capital, 1917-1922, 100 farms, Hillsboro County, Florida.*

	1917	1918	1919	1920	1921	1922	Average 1917-1922
	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	Per cent
Capital per farm .....	6,253	6,681	7,655	8,306	8,622	9,659	7,862
Land .....	4,198	4,370	5,068	5,557	5,809	6,717	5,286
Dwelling .....	718	728	849	983	1,021	1,109	901
Other buildings .....	199	238	211	305	347	356	276
Total real estate .....	5,115	5,336	6,128	6,845	7,177	8,182	6,463
Livestock .....	462	536	651	651	644	538	580
Machinery .....	182	188	237	261	258	291	236
Irrigation equipment .....	46	78	83	107	109	129	92
Feed and supplies .....	204	249	247	121	110	165	183
Cash .....	244	294	309	321	324	354	308
Total working capital .....	1,138	1,345	1,527	1,461	1,445	1,477	1,399
Value of real estate per acre	98	100	115	126	137	158	121
Improvements:							
New groves .....	9	*	29	32	30	4	17
Buildings .....	22	63	124	37	79	57	64
Fences, clearing, etc. ....	22	29	16	17	38	17	23

\*Less than 50 cents.

an item of considerable expense, but the average cost was only \$5 per farm. The cost of this item, however, was over four times as much in the last three years of the study as it was the first three years, which indicates that the farmers are realizing the need of more spraying in order to put a better product on the market.

## FARM CAPITAL

The capital per farm increased yearly during the period studied, which is accounted for mainly in the increase in the general price level. The value of real estate per acre increased from \$98 in 1917 to \$159 in 1922. The cash expended for improvements, shown in Table 16, does not represent the total value of improvements, as considerable of the labor expended on these improvements was performed by the regular labor on the farm and charged against current expenses. The expenditures for new groves, for instance, was largely the purchase price of the trees. Total improvements, however, even with this labor item included, represented a small part of the increase in value of real estate over the six-year period.

Farming in this area is a business of relatively small capital. In 1922 about two-thirds of the farms represented an outlay of less than \$10,000 of capital per farm. (Table 17).

From 20 to 30 per cent of the farmers borrowed money for operating expenses. These loans ran from one to six months and averaged from \$300 to \$350 per farm. The number of mortgages was slightly less in 1922 than in 1917, but the value of the mortgage burden was higher.

Table 17—*Variation in capital per farm, 1917-1922, 100 farms. Hillsboro County, Florida.*

	1917	1918	1919	1920	1921	1922
	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
Average capital per farm .....	6,253	6,681	7,655	8,306	8,598	9,659
Farms representing a capital of:	No.	No.	No.	No.	No.	No.
Less than \$ 2,500	11	7	5	5	6	2
\$ 2,500 to 4,999	37	40	29	27	26	23
5,000 to 7,499	27	28	33	28	26	25
7,500 to 9,999	12	11	15	18	18	14
10,000 to 12,499	7	7	6	8	9	13
12,500 to 14,999	1	3	5	7	6	11
15,000 to 17,499	3	2	3	4	4	5
20,000 and over	2	2	4	3	5	7

## LABOR INCOME

The labor income varied considerably from year to year due mainly to the variation in receipts. (Table 19). The year of highest average labor income was in 1920, but the purchasing power of the 1917 labor income was 20 per cent higher than that of 1920. The labor income was somewhat higher in 1917 than in 1921, but the purchasing power was 7 per cent higher in 1921 than in 1917. (Table 18.). The six-year

Table 18—*Relative purchasing power of Labor Income, 1917-1922, calculated from general price level of U. S. Bureau of Labor Statistics, with 1917 as 100 per cent.*

Year	Labor Income Dollars	Purchasing Power
1917	876	100
1918	229	24
1919	293	28
1920	901	80
1921	784	107
1922	75	11

period of this study was during a time of considerable fluctuation in the purchasing power of the dollar, which should be taken into account in comparing the incomes in dollars for the different years. The capital and the value of the operator's labor increased during this period, making larger receipts necessary for the same per cent of return on the capital in the latter years of the study. (Tables 2 and 19).

Table 19—*Labor Income and value of family living, 1917-1922, 100 farms, Hillsboro County, Florida.*

Period	Farms studied	Farm Receipts	Farm income	Labor income	Return on capital	Family living
	Number	Dollars	Dollars	Dollars	Per cent	Dollars
1917	100	2,618	1,376	876	14.5	—
1918	100	2,241	763	229	3.5	—
1919	100	2,336	905	293	3.1	499
1920	100	3,556	1,565	901	10.0	520
1921	100	3,565	1,473	784	9.0	451
1922	100	3,076	848	75	2.3	420
Average 1917-1922	100	2,899	1,155	526	6.8	—
	10 best	7,836	3,356	1,962	11.7	—
	10 poorest	927	48	-490	-7.8	—

There was a wide range in earnings from the different farms, as will be noted in the variation in farm incomes shown in Table 20. Of the 100 farms, 63 made a farm income in each of the six years, and only one failed to make expenses in each of the six years. Twenty-four farms failed to make expenses one year of the six, and eight farmers had expenses exceeding receipts during two of the six years.

Table 20—*Variation in farm income, 1917-1922, 100 farms, Hillsboro County, Florida.*

Farms having farm income of:—	1917	1918	1919	1920	1921	1922
	No.	No.	No.	No.	No.	No.
-1,001 to -1,500 .....	-	-	1	-	-	2
-501 to -1,000 .....	-	2	1	1	2	7
0 to -500 .....	5	8	10	3	9	16
1 to 500 .....	24	28	24	17	16	21
501 to 1,000 .....	23	33	28	17	21	21
1,001 to 1,500 .....	11	17	18	21	18	13
1,501 to 2,000 .....	18	7	2	12	9	8
2,001 to 2,500 .....	5	2	10	12	8	3
2,501 to 3,000 .....	3	2	3	3	6	2
3,001 to 3,500 .....	3	1	1	4	3	2
3,501 to 4,000 .....	2	-	1	3	3	2
4,001 to 4,500 .....	-	-	-	6	-	-
4,501 to 5,000 .....	2	-	-	-	2	-
Over 5,000 .....	4	-	1	1	3	3

**FAMILY LIVING**

A considerable amount of the food consumed by the family was produced on the farm. This is especially true in this

Table 21—*Items furnished by the farm for family use, 1919-1922, 100 farms, Hillsboro County, Florida.*

Item	Unit	1919	1920	1921	1922	Average 1919-1922
Adult or equivalent	No.	4.3	4.2	4.3	4.4	4.3
		Quantities				
Corn .....	Bu.	1	*	*	*	*
Sugar cane syrup .....	Gals.	27	25	23	21	24
Potatoes .....	Bu.	19	17	17	13	16
Butter .....	Lbs.	74	60	62	60	64
Milk .....	Gals.	223	254	294	277	262
Beef .....	Lbs.	3	*	*	3	1
Eggs .....	Doz.	75	67	81	93	79
Poultry .....	No.	26	23	25	27	25
Pork .....	Lbs.	531	487	428	319	441
Wood .....	Cords	4.1	4.4	4.8	4.0	4.2
		Values				
Corn .....	Dollars	1	*	*	*	*
Sugar cane syrup .....	do	30	31	12	12	21
Potatoes .....	do	29	34	21	16	25
Garden .....	do	49	52	49	40	48
Butter .....	do	41	36	31	30	35
Milk .....	do	44	64	73	56	69
Beef .....	do	1	*	—	1	*
Eggs .....	do	30	33	33	28	21
Poultry .....	do	21	21	20	22	21
Pork .....	do	106	88	47	42	71
Total food .....	do	352	359	286	247	311
Wood .....	do	19	20	17	16	18
Use of house .....	do	128	141	148	157	144
Value of all items	Dollars	499	520	451	420	473
Per family .....	do	116	124	105	96	110

\*Less than one.

district where vegetables may be grown practically the year round. Milk, butter, eggs, poultry, pork, and beef were used on the farmer's table from what he could have sold. Wood was used for fuel almost exclusively and was cut, in most instances, from the home farm. The residence is generally located on the farm and is used partly in connection with the farm business.

Table 22—*Variation in the value of family living from the farm, 1919-1922, 100 farms, Hillsboro County, Florida.*

Farms contributing a family living of—	1919	1920	1921	1922
	No.	No.	No.	No.
\$250 and under	6	5	12	12
251 to \$ 500	48	46	54	64
501 to 750	35	38	26	16
751 to 1000	8	6	6	8
Over 1000	3	5	2	-

The average quantity and value of food and fuel items and house rent per farm family furnished directly by the farm is shown in Table 21. The value of the house rent is determined by adding to the annual repairs, depreciation, 8 per cent interest on the value of the house, and a proportional part of the farm taxes and fire insurance.

There was considerable variation in the value of the family living furnished by the farm on different farms (Table 22), the wide fluctuations being due mainly to the variations in size of family and value of the dwelling.

## FACTORS AFFECTING FARM PROFITS

On the 100 farms studied, 83 were operated by the same farmers throughout the six-year period. The six-year average data were determined for each of these farms individually, and these data are analyzed to bring out some of the important factors which affect profits over a series of years.

### Size of Business

A number of farm business analysis studies in different parts of the country have shown that a business larger than the average of the community usually returns the farmer more than one smaller than the average. It is of course possible to have heavy losses on very large farms in poor years. The acreage of truck crops raised is a good measure of the size of business in this area, and Table 23 was constructed on this basis. The profits did not increase in direct proportion with the increase of acreage in crops, but they did increase with each size group, indicating that the operator secured larger returns for his wages on the larger farms than on the smaller farms, after allowing 8 per cent interest on all his capital. The farm income or net receipts per acre on the group of smallest farms was \$142, while that of the group of largest farms was only \$93; but due to the efficiency of larger scale of operation, the latter groups of farms returned better profits. The capital on the small farms was \$1,070 per acre of crops, and on the large farms it was only \$614 per acre. The small farms also required four and one-half months of labor per acre of crops, while the large farms required only 1.6 months per acre of crops.

### Prices Received for Products

In order to determine the relationship between the prices received for the products sold and farm profits, a price index was computed for each farm. The index for the individual farms was computed by dividing the value of the actual sales by what the sales would have realized had the crops been sold at the average prices received by these farmers. Table 24 indicates a close correlation between price index and farm profits. Prices reflect quality, time of selling, bargaining ability of the farmer, and farm organization. A farmer who puts in a relatively large acreage of a crop in a year when the prices of that crop are low, is likely to have a low price index, as the prices of the other crops are not likely to bring him up to the average. A comparison of Tables 5 and 7 show that, for the farms as a whole, low prices for a crop are more common in years when relatively large acreages are planted than in years of low acreages.

Table 23—*Relation between size of business and farm profits, 83 farms, six-year average, 1917-1922, Hillsboro County, Florida.*

Acres of truck crops		Mos. of labor	Capital	Farm Income	Labor Income	Family Living	Farms
Group	Average						
Less than 5	4	18	4278	567	267	356	9
6 - 10	8	22	6227	852	412	411	33
11 - 15	13	28	9958	1279	533	513	24
16 - 20	18	35	10944	1433	600	532	9
Over 20	34	55	20875	3162	1562	578	8

### Cropping Systems

It is difficult to state just what combination of crops and what proportion of the available acreage devoted to each crop would prove the most profitable. A study of the data has demonstrated that, over a period of years, a diversity of crops assures profitable returns on labor and money expended more often than the growing of only one or two crops. Weather and markets are too uncertain to specialize too highly. Labor and equipment can be used more efficiently throughout the year when several crops are raised.

Table 24—*Relation of price index to farm profits, 83 farms, six-year average, 1917-1922, Hillsboro County, Florida.*

Price index		Farm	Labor	Percentage	Farms
Group	Average	income	income	return on capital	represented
Per cent	Per cent	Dollars	Dollars	Per cent	Number
Less than 95	87	546	15	.1	13
95 - 114	100	1,209	584	6.5	64
115 and over	130	2,933	1,517	14.5	6

An analysis of the cropping systems of the farms studied during the six years indicates that with the yields obtained and the prices received during the periods of the survey, the best results were obtained in this section when about 25 per cent of the truck acreage was in strawberries, 25 per cent in string beans, 20 per cent in white potatoes, 5 per cent in tomatoes, and the balance in other truck, or this acreage added to the above mentioned crops. On farms in this section which are considerably larger than the average, the proportion of the acreage devoted to strawberries should probably be less than 25 per cent, owing to the heavy labor requirements of this crop. On the smaller farms the acreage in strawberries was often relatively greater, particularly when sufficient family labor was available to care for the

crop at picking time. Thus the size of the farm, the type of soil, amount of labor available, and adaptability of the farmer to a crop are all factors which should be considered in connection with the general cropping system suggested.

A small orange grove, well cared for, should be part of the farm plan. In 1922, 86 per cent of the farms studied had groves, and 13 per cent of the crop receipts were from oranges. With the exception of spraying, all the operations are performed with the regular farm equipment. A small grove can be developed at little extra outlay other than the amount paid for trees, and a small quantity of fertilizer, and during the period of this survey at least, has added considerably to the value of the farm.

### Crop Yields

Farmers recognize that in any system of successful farming, good crop yields are essential. In Table 25 the farms were sorted into groups according to their 6-year average crop index. \*

There is a close relation between the crop index and farm profits. The 29 farms, for instance, with the best yields

Table 25—*Relation of crop yields to farm profits, 83 farms, 6-year average, 1917-1922, Hillsboro County, Florida.*

Crop index Group	Price index	Farm income	Labor income	Percentage return on capital	Farms repre- sented
Per cent Less than 90	Per cent 97	Dollars 552	Dollars 28	Per cent 1.1	Number 27
90 - 109	96	1252	563	7.0	27
110 and over	101	2123	1254	10.9	29

returned their owners 11 per cent on their capital after allowing them fair wages, while the 27 farms with lowest crop yields, netted only one per cent on the capital invested. Good crop yields show good management. Crops are sometimes grown on soils unsuited for the crop. Good seed, proper

\*—The crop index was determined by dividing the actual acres in crops on any farm into the acres required to make the same production with average yields of the community. Example of a farm:

Crop	Actual acres	Actual produc- tion	Average yield per acre all farms	Acres required for pro luction at average yields
Beans .....	9.0	133	62	2.1
Tomatoes .....	4.0	240	44	5.5
Squash .....	2.0	262	36	7.3
Peppers .....	2.2	617	70	8.8
Strawberries .....	6.0	8.871	2,120	4.2
Oranges .....	8.0	900	92	9.3
Totals .....	31.2			37.7

37.7 divided by 31.2 equals 121, the crop index.

use of fertilizer, good cultivation and care of growing crops are all important factors affecting yields.

Table 26 indicates that when both yield and prices are above the average, the labor incomes are more than double that of the average; but when both yields and prices are below the average, the labor incomes are only about one-seventh of the average.

Table 26—*Relation of crop index and price index to farm profits, 83 farms, 6-year average, 1917-1922, Hillsboro County, Florida.*

Crop index	Price index	Farm income	Labor income
Below 100	Below 100	Dols 612	Dols 73
	Above 100	669	138
Above 100	Below 100	1,142	512
	Above 100	2,016	1,136

## SUMMARY

1. This study extends over a six-year period and thus gives an insight into the variations in plantings, yields, prices, and profits.
2. Climatic conditions, including damage from cold, rain and drought are important factors influencing yield, quality, time of maturity and prices.
3. The average labor income for the six-year period was \$526 per year, while the family income averaged \$1316. Table 2, page 11.
4. Average labor incomes increased with size of farm, crop index and price index.
5. The average yearly earning on capital was 6.8 per cent. Table 2, page 11.
6. Ninety-seven per cent of the farmers owned all or most of the land they operated, and only 5 per cent of the total land operated was rented. Table 3, page 13.
7. Distribution of labor is important in the selections of crops to be grown. Figure 3, page 24.
8. Soils vary widely and care is necessary in their selection. Page 8.

9. There is a tendency to plant larger acreages of a crop following a year of high prices than in a year following low prices, and the increased acreage is frequently followed by lower prices. Table 6, page 19, and table 7, page 21.

10. There was a tendency to use slightly more fertilizer per acre the last three years than was used the first three years of the study; although the amount of fertilizer used per acre by individual farmers for the same crop varied considerably. Table 10, page 25.

11. There was an increase in total capital each year of the study. The value of land increased from \$98 per acre in 1917 to \$158 per acre in 1922. Table 16, page 34.

12. Sources of receipts for the six-year period, averaging more than \$100 per year were as follows: strawberries \$913, oranges \$355, string beans \$255, Irish potatoes \$248, tomatoes \$191, cabbage \$165, and cucumbers \$140; approximating 79 per cent of the total receipts.

13. All of the crops showed wide variations in yield, prices, and receipts over the six-year period. Table 6, page 19, table 7 page 21, and table 8 page 22.

14. The number of months of cropper labor increased yearly from 1917 to 1922. Table 15, page 32.

15. In 1917, 24 per cent of the farmers had automobiles, and in 1922, 85 per cent had them.

16. The average value of family living furnished by the farm was \$473. The item showed large variations due to the size of the family and value of the dwelling. Table 21, page 37.

17. Better livestock is recommended for the area, and an increase in the size of farm flocks of poultry.

18. A diversity of crops assures profitable returns on labor and money expended, more often than the growing of only one or two crops.

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