

Extension Bulletin No. 131

March, 1933

**AGRICULTURAL SITUATION
AND OUTLOOK FOR
MICHIGAN
1933**

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**MICHIGAN STATE COLLEGE
Of Agriculture and Applied Science**

EXTENSION DIVISION

R. J. Baldwin, Director

Printed and distributed in furtherance of the purposes of the cooperative agricultural extension work provided for in the Act of Congress May 8, 1914, Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture, cooperating.

This report was prepared by a joint committee of the Michigan State College Departments of Economics and Farm Management, and the Michigan State Agricultural Statistician, including R. V. Gunn, H. A. Berg, V. H. Church, and O. Ulrey, in cooperation with Prof. G. A. Brown, Prof. C. G. Card, Prof. H. C. Rather, Prof. V. R. Gardner, and Prof. E. L. Anthony, heads of the five production departments, Dr. H. S. Patton, Head of the Economics Department, and Prof. E. B. Hill, head of the Farm Management Department. Liberal use was made of the 1933 Agricultural Outlook report for the United States prepared by the Bureau of Agricultural Economics of the United States Department of Agriculture and also of the annual summary of the 1932 Crop Report for Michigan.

AGRICULTURAL SITUATION AND OUTLOOK FOR 1933

1. *Domestic demand for farm products for 1933 not apt to be materially different than in 1932.*
 - a. Industrial production in June, 1929, was 125 per cent of the 1923-25 average, 58 per cent in July, 1932. Rose to 66 per cent during last quarter in 1932.
 - b. Building activity in June, 1929, was 126 per cent of the 1923-25 average. Fell to 26 per cent in March, 1932. Very little gain since.
 - c. Any substantial improvement awaits recovery of industries producing durable goods. (Bldg., R. R. equipment, automobiles).
 - d. National income 91 billion dollars in 1929, 55 billion in 1932, 40 per cent decline. However, incomes of wage earners in factories, railroads, construction declined 65 per cent. Present unemployed workers in industry 11½ million.
 - e. Over 5,000 bank suspensions, involving deposits of more than 3 billion dollars, have occurred during the past 3 years (1930-32) which severely curtails domestic purchasing power. This may be further effected by inability of certain banks to reopen following the recent national bank moratorium.
 - f. Readjustments are now in progress. Debts are gradually and tardily being scaled down. Wages and salaries are being reduced. Rents are being forced down.

2. *Foreign demand for agricultural products offers but little prospect for improvement.*
 - a. Foreign demand for our agricultural products has fallen to new lows:
 - (1) Value of agricultural exports for last 6 months of 1932, only $\frac{2}{3}$ of same period a year earlier.
 - (2) For year ending June, 1932, value of agricultural exports was 25 per cent less than previous fiscal year, and 60 per cent less than for 1928-29.

 - b. Volume of agricultural exports held up better than value:
 - (1) Volume agricultural exports larger in 1931-32 than preceding two seasons. Only 16 per cent under 1928-29.
 - (2) Only slight decline first six months of 1932-33 season, compared to corresponding period, 1931-32.

- (3) Excluding cotton, however, 1931-32 export volume was 10 per cent under preceding season, and 35 per cent under 1928-29. First half of 1932-33 was 25 per cent less than corresponding season.
- c. Annual debt obligations of foreign countries to United States, on account of war loans and commercial loans, limit capacity of such countries to purchase United States farm products and lead them to produce such requirements at home when possible or to buy from other countries to which they are not indebted.

Index numbers of United States wholesale prices of all commodities, 1800-1932.

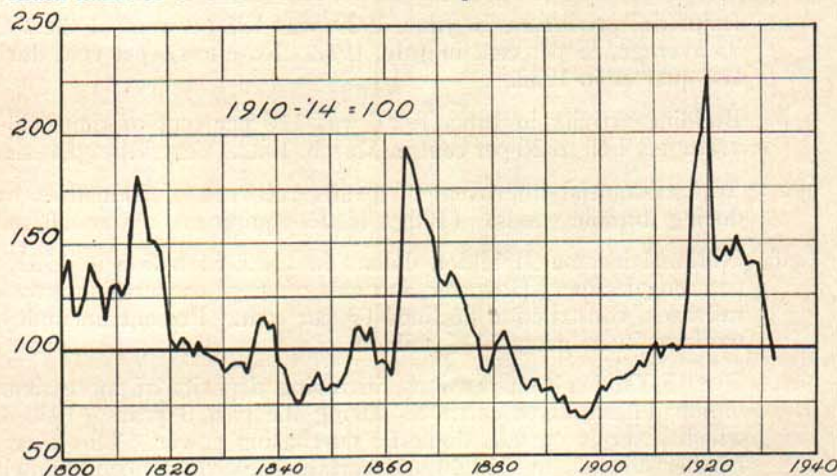


Chart No. 1.—During the War of 1812, the Civil War, and the World War, prices rose rapidly. The decline in prices following the World War appears to be taking the same general trend as that which followed the two previous wars. Prices in the United States have never remained stable for any long period of time.

- d. The premium on the dollar in terms of most foreign currencies adversely affects United States export trade.
- e. The recent trade agreements between the United Kingdom and the various British Dominions, in accordance with the Ottawa Conference of September last, are already having the effect of limiting American agricultural exports to the world's principal food importing nation. Most food products from the Dominions are now given free admission to the British market, while those from non-Empire countries are dutiable at various rates. Although meats remain on the British free list, the imports from different countries are being subjected to a system of quotas in which preference is accorded to the Dominions.
- f. Efforts of our National government at Washington and the proposed world economic and monetary conference in London next June may bring about a reduction in present barriers.

- g. Excepting cotton, foreign agricultural production continues at high level. In deficit agricultural countries of Europe acreage and production continue to mount due to high import duties and other trade restrictions. Wheat 20 per cent higher and hogs 30 per cent higher than in 1920.

3. *Agricultural credit aided by Federal Agencies.*

- a. The Federal Land Bank, the Intermediate Credit Bank, the Federal Farm Board, the Regional Agricultural Credit Corporation, and the United States Department of Agriculture are sources of agricultural credit to which farmers have access.
- b. Under the new administration at Washington these agencies are undergoing some reorganization, but it is expected that their chief functions will continue and probably be expanded.
- c. A more complete outline of these federal sources of agricultural credit and procedure farmers must follow to obtain loans will be included in a special publication which it is intended to issue at an early date.

4. *Farm incomes in 1932 less than half that of 1929.*

- a. Total farm income for entire U. S. was about 12 billion dollars in 1929, 7 billion in 1931, and 5 billion in 1932.
- b. Total cash income on Michigan farms for 1932 approximately 130 million dollars compared to 250 million dollars in 1929.

Index numbers of Michigan farm prices, prices paid by Michigan farmers, Michigan farm taxes, and Michigan farm wages, 1914-1932.

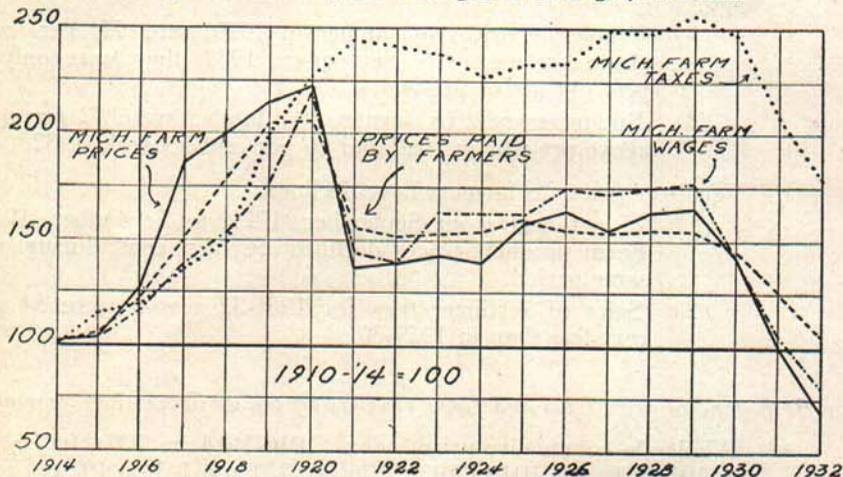


Chart No. 2.—During the World War, farm prices rose more rapidly than the farm costs. Farm prices fell the most in 1920 and 1921, and again since 1929.

- c. Gross value of Michigan crops for 1932 was approximately 90 million dollars but about 55 per cent are fed on farms where produced.
 - d. This leaves about 40 million dollars cash income from crops, and 90 million dollars cash income from livestock, or a total cash income of less than \$800 per farm.
5. *Farm expenditures for labor, equipment and fertilizer are still declining.*
- a. Farm labor abundant and wages low:
 - (1) Less demand for labor and more labor available.
 - (2) Wage rates lowest in many years. Average for U. S. January 1, \$14.77 per month with board, and \$23.62 per month without board.
 - b. Farm machinery prices have declined slightly:
 - (1) 14 per cent decline in wholesale machinery prices from September, 1929, to September, 1932. Auto and tractor prices declined 11 per cent.
 - (2) Prices of trucks, tractors, gas engines and autos now below pre-war but farm machinery still somewhat above.
 - (3) These wholesale price declines not evident in retail prices paid by farmers. Retail prices for farm machinery have dropped from an index of 162 to 147 for the 3-year period, 1929 to 1932.
 - (4) Sales from farm machinery (except trucks) \$459,000,000 in 1929. 1930 sales 85 per cent and 1931 sales 42 per cent of 1929 sales. 1932 sales materially below 1931.
 - c. Building material prices about 22 per cent lower than three years ago.
 - (1) Wholesale prices of lumber in 1929 were 75 per cent above pre-war. By September, 1932, they were only 5 per cent above pre-war.
 - (2) But prices paid by farmers for lumber were 62 per cent above pre-war in 1929 and 26 per cent above in 1932.
 - d. Fertilizer prices to farmers have declined:
 - (1) 25 per cent from September, 1929, to September, 1932. Farm products prices declined 58 per cent during the same period.
 - (2) Sales of fertilizer tags for 1931-32 season were 54 per cent less than in 1929-30.
6. *Both general price level and farm purchasing power lower than year ago.*
- a. Wholesale commodity price index (1910-1914 = 100) fell to 95 in 1932. It was 104 in 1931, 126 in 1930 and 141 in 1929.
 - b. The U. S. farm price level fell to 57 for 1932. This was 80 in 1931, 117 in 1930 and 137 in 1929.

- c. The Michigan farm price level fell to 69 for 1932. This was 100 in 1931, 142 in 1930 and 165 in 1929. Purchasing power of farm prices was 106 in 1929 and 62 in 1932.
- d. Future prices of farm products primarily dependent on two factors:
 - (1) The course of the general price level.
 - (2) The business situation which affects the demand for farm products.

Indexes of wholesale food prices (meats and dairy products) and payrolls, 1920-1932.

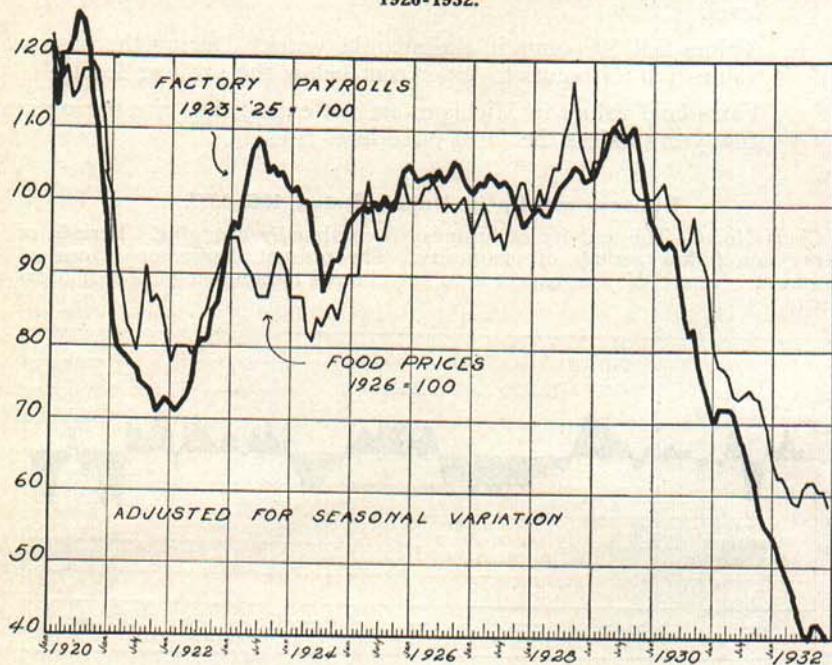


Chart No. 3.—Wholesale prices of food products are closely related to the purchasing power of consumers as represented by payrolls of factory workers. As the purchasing power of a group declines, either the quantities purchased or the prices paid must be reduced. Much of this adjustment in food products generally takes place in prices.

7. Indices of Business Activity and Prices.

a. Index of Business Activity. (1923-25 = 100.)

	Jan., 1930	Jan., 1931	Jan., 1932	Nov., 1932
Industrial Production.....	104	82	72	65
Building Contracts.....	88	65	31	28
Factory Employment.....	96	78	68	61
Factory Payrolls.....	94	68	52	42
Exports.....	104	64	39	32

b. Index of Prices and Purchasing Power. (1910-14 = 100.)

	Jan., 1930	Jan., 1931	Jan., 1932	Nov., 1932
U. S. Wholesale Prices.....	136	112	98	93
Michigan Farm Prices.....	161	116	75	67
Prices Paid by Farmers.....	153	137	118	106
Purchasing Power of Michigan Farm Prices.	105	85	64	63

8. *Land values and taxes continue to decline.*

- In 1920 Michigan land values reached 54 per cent above pre-war level.
- Values fell 39 points in the next 11 years. During the past year values fell 24 points to 9 per cent below the pre-war level.
- Farm land values in Michigan are not expected to rise during next few years unless the farm price level rises.

Business activity in United States, 1863-1897.

Chart No. 4.—The activity of business is continually changing. Periods of depression follow periods of prosperity. The present depression is one of the most severe. We can expect it to be followed by another period of prosperity.

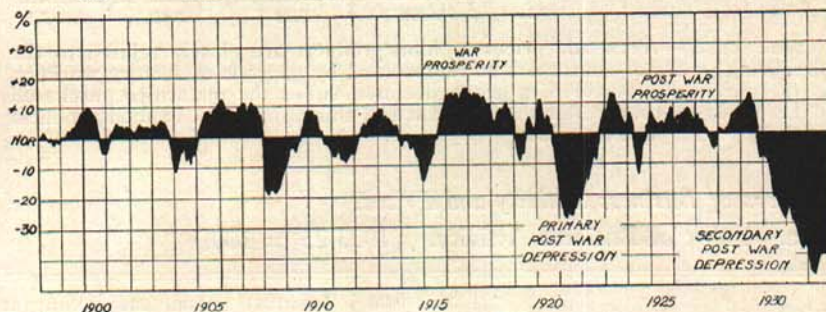
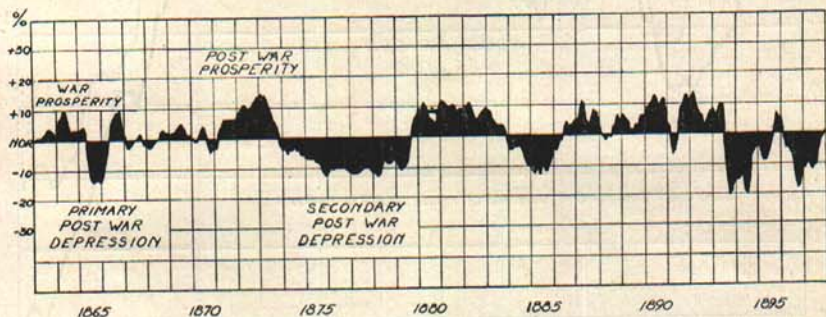
**Business activity in United States, 1898-1932.**

Chart No. 4 Continued.—Changes in business activity have been very similar following the Civil and the World Wars. The secondary depression in each period began about 10 years following the close of the war. Business has been farther below normal during the present depression than during any previous depression.

- d. Assuming 1914 as 100, Michigan farm taxes rose to 198 by 1919. In the next 10 years they rose to 256. For 1932 they dropped to 180.
 - e. This is a 30 per cent drop in past 3 years for Michigan. Farm taxes for the entire U. S. declined about 20 per cent during this period.
 - f. Under the newly adopted \$15.00 tax limitation amendment farm taxes in Michigan will show a further decrease for 1933.
9. *Farm legislation proposed is of three types.*
- a. That proposed to bring about general inflation as decreasing the quantity of gold in a dollar or the issuing of more paper money.
 - b. That planned to bring about a rise in farm prices relative to other prices as the Domestic Allotment Plan, the Debenture Plan, etc.
 - c. That to make deflation easier such as federal credit to refinance farm mortgages, delaying foreclosures, limiting bank withdrawals, etc.

DAIRY PRODUCTS

1. *Moderate increase in milk production expected in 1933.*
 - a. Number of cows increased 4 per cent during 1932. Ten per cent increase in previous 4 years. Now over 25 million cows and heifers (2 years or over) in the United States.
 - b. Fully enough yearling heifers for replacements. Normally 16 per cent of cows are replaced. In 1932 only 13 per cent.
 - c. Unusually small proportion of cows culled out in 1932 due to cheap grain, ample supply of labor and low price of cows.
 - d. Supply of feed grain for U. S. largest since 1920. Oat and barley production in Michigan was down but alfalfa hay production largest on record.
 - e. Production per cow 4 per cent lower in 1932 than in 1931. Not likely to be higher in 1933.
 - f. Oleomargarine production 10 per cent less in 1932 than in 1931.
2. *Domestic and foreign demand not encouraging.*
 - a. Any improvement in domestic demand depends upon improvement in urban purchasing power.
 - b. City consumption of milk and manufactured dairy products further declined in 1932.
 - c. Larger proportion of milk produced in 1932 was utilized on farms than in 1931.

- d. Both exports and imports of dairy products declined further in 1932. However, imports exceeded exports. First time since 1927.

3. *Prices of Dairy Products low but still offer good market for feed.*

- a. General decline in dairy products prices during past three years due largely to decline in general price level rather than by any marked change in output of dairy products.
- b. Although farm prices of dairy products are low they declined less in 1932 than farm prices generally, and materially less than feed grain prices.
- c. Farm prices of all products averaged 29 per cent lower in 1932 than in 1931. Dairy products 25 per cent less and feed grains 37 per cent less.
- d. From 1929 through 1932, prices of manufactured dairy products declined more than prices of milk used for city consumption. During 1932, retail prices of milk averaged 12 per cent lower, butter 23 per cent lower and cheese 18 per cent lower than in 1931.

4. *Michigan situation and recommendations.*

- a. Dairy products supply over 30 per cent of gross farm income in Michigan.
- b. Michigan dairy cows consume 80 per cent of the corn silage and 75 per cent of the barley grown in the state, and 40 per cent of the oats, 16 per cent of the wheat, 25 per cent of the corn grain and 33 per cent of the hay.
- c. Low farm price for milk has caused some dairymen to start retail city deliveries. In some localities milk wars and price cutting have resulted.
- d. Consumption of dairy products decreased about $3\frac{1}{2}$ per cent in the U. S. during 1932. Greater decrease than this for Michigan which is strongly industrial and has heavy unemployment.
- e. Dairy products must and can be produced at lower costs. More economical rations based on home-grown feeds, eradication of disease and elimination of cull cows are ways of doing this.
- f. Some reorganization and adjustments will be made. City whole-milk supply comes from smaller area than formerly. Distant dairymen are forced to readjustments in market outlets.

5. *General outlook and adjustments.*

- a. Output of American dairy industry approximately in balance with domestic consumption. Expansion beyond this will result in disastrously low prices.

- b. Comparative favorableness from feeds marketed through cows is the most vital factor to be closely watched by organized dairy interests in their effort to hold proper balance between supply and demand.

POULTRY AND EGGS

1. *Doubtful if poultry and egg production in 1933 exceeds that of 1932.*
 - a. Number of layers in farm flocks January 1, 1933, 3 per cent more than year ago, although 3 per cent less than previous 5-year average.
 - b. Due to good egg prices last fall and early winter when prices of other farm products were unusually low some increase in number of chickens hatched in 1933 is expected.
 - c. Feed prices are low and favorable to poultry profits.
 - d. Scarcity of money may cause many to cease operations.
2. *Practically no carry-over of storage stock of eggs into 1933 season.*
 - a. 159,000 cases of shell eggs in storage January 1, 1933, smallest since 1915.
 - b. Stocks of combined shell and frozen eggs equivalent to 1,740,000 cases January 1, 1933, 3,738,000 cases January 1, 1932 and 3,098,000 cases for the 5-year average.
 - c. Eggs stored in 1932 were sold at a profit. Some increase in stocks stored this year is expected.
3. *Receipts of eggs at principal markets in 1932 15 per cent less than in 1931.*
 - a. 13 million cases received at 4 leading markets (N. Y., Boston, Philadelphia, and Chicago) in 1932, 15 millions for 1931 and for the 1927-31, 5-year average.
 - b. Receipts in 1932 were below 1931 for first 9 months but larger in October and November.
 - c. Although receipts declined 15 per cent consumption decreased only 11 per cent. Large carry over of storage stocks from 1931 was the reason.
4. *Egg prices during 1932 lowest in 33 years, but were higher relatively than other farm products.*
 - a. U. S. farm price dropped to 10½ cents per dozen in spring months but rose to 28 cents in December.
 - b. Both the low spring price and the high December price due mainly to exceptionally small supply placed in storage last spring.

- c. To what extent increased demand for hatching and storage eggs will offset moderate increase in production is difficult to determine.
 - d. Fresh eggs marketed next fall and winter likely to meet more competition from larger storage stocks than last year.
5. *Receipts, storage and consumption of poultry during 1932 slightly lower than in 1931.*
- a. Receipts of dressed poultry in the 4 markets were 355 million pounds in 1932 compared to 386 million pounds in 1931 and 364 million pounds for the 1927-31 5-year average.
 - b. Poultry cold storage stocks were 97 million pounds January 1, 1932, 106 million one year ago, and 107 million for the 5-year average.
 - c. Consumption in these four markets during 1932 was 3 per cent less than in 1931. At the same time prices were also less.
6. *Suggestions.*
- a. Any increase in production for 1933 is not recommended.
 - b. Those who have not had poultry experience should hesitate to enter the business at this time.
 - c. Experienced poultrymen and farmers should brood the number of chicks they can take good care of.
 - d. General farmers who raise their own grain should be able to produce eggs and poultry meat at a profit.
 - e. Either very small flocks, sufficient to supply eggs and meat for the farm table, should be kept, or
 - f. The flocks should be large enough so that the returns will warrant the extra care that a poultry flock kept for revenue demands.

TURKEYS

1. *Production of turkeys in 1933 likely to be somewhat less than in 1932.*
 - a. Size of farm flocks in 1933 may be less responsive to 1932 price declines than large commercial flocks.
 - b. 1932 level of turkey prices lowest in 20 years. Average U. S. farm price of turkeys in Mid-December, 11 cents per pound.
 - c. Increase in number of turkeys and reduced consumer purchasing power were contributing factors for these low prices.
 - d. Spread between turkey and chicken prices has been greatly reduced in recent years—10.2 cents per pound for years 1925-29 and 1.7 cents for 1932. (December prices.)

- e. Some price premium for the smaller birds has come about in past 2 or 3 years.

2. *Michigan situation and adjustments.*

- a. Turkey prices have declined but so has cost of production owing to cheaper feeds and more efficient methods of production.
- b. Some shift from turkey to chicken and egg production may be expected where enterprises are competitive.
- c. General farms with adequate pasture and home-grown grain should be able to produce turkeys profitably.
- d. Farm flocks should be large enough to permit artificial brooding and should have access to plenty of new range.
- e. With prices probably continuing low, commercial turkey raisers will need to be careful and efficient if they are to make satisfactory profit.

HORSES

1. *Supply of horses not in keeping with demand.*

- a. Horses on farms January 1, 1932, numbered 12,679,000 for U. S. compared with 19,767,000 in 1920. The numbers of horses in Michigan declined from 605,000 to 373,000 for the same period.
- b. 10,800 shipped into Michigan from December 1, 1931, to December 1, 1932, according to records in State Department of Agriculture. These cost Michigan farmers more than a million dollars.
- c. Number of colts on farms about 55 per cent of the number needed to maintain the present work horse population.
- d. In 1920, 13 per cent of horses on farms were less than 2 years of age. In 1930 only 7 per cent.

2. *Prices of horses holding up well.*

- a. Average farm price of horses for U. S. \$77.00 December, 1929, and \$56.00 December, 1932, a 27 per cent decline. Prices of all farm products declined 61 per cent in this period.
- b. Prices of horses in Michigan \$110.00 per head in 1929 and \$97.00 in 1932, a 12 per cent decline in the three years. Prices of all Michigan farm products declined 42 per cent for this period.
- c. Prices for horses for both U. S. and Michigan on January 1, 1933 same as a year ago, while the general farm price trends dropped 21 and 19 per cent respectively.

3. *Some expansion is justified.*

- a. Decline in number of work horses likely to continue unless raising of colts is resumed on an extensive scale.
- b. 481 licensed draft stallions in Michigan in 1932 compared to 447 in 1931, but they are not equally distributed.
- c. There seems to be opportunity for profitable stallion ownership in many communities in Michigan and for the keeping of good brood mares on many individual farms.
- d. Over 3 million dollars paid out by Michigan farmers for horses shipped into state during past three years.

HOGS

1. *Slaughter for present marketing year (ending September 30, 1933) expected to be somewhat smaller than a year ago.*

- a. Combined spring and fall pig crops in 1932 were 78.7 million head as compared to 81.2 million head for 1931.
- b. An increase in average weight over last year is expected. Large supplies of corn and other feeds are on hand and a favorable corn-hog price ratio exists.
- c. Estimated number of sows to farrow in spring of 1933 about 2 per cent larger than last year according to December pig survey.
- d. Size of 1933 spring pig crop also depends upon number of pigs saved per litter.
- e. Storage stocks of pork on Jan. 1, 12 per cent smaller than a year ago. Lard stocks 21 per cent smaller. This reduction equivalent to one-half million head of hogs.

2. *Domestic demand for hogs for 1933 not expected to improve.*

- a. Per capita consumption of all meats and lards federally inspected was 99 pounds in 1932, which is about the same as in 1931.
- b. Hog products consumption was slightly larger, that of other meats smaller, but decline in retail prices of hog products was greater than for beef or lamb.
- c. Retail prices of meat in 1932 were 21 per cent lower than in 1931, cereal foods 11 per cent lower, dairy products 16 per cent lower.
- d. Increased farm and retail slaughter also a factor which adversely affects consumer demand.

3. *Foreign demand for American hog products may be strengthened somewhat.*
 - a. Hog numbers in foreign producing countries have been declining since summer of 1931. Slaughter supplies for 1933 expected to be considerably smaller than in 1932.
 - b. Downward trend in exports of United States hog products continued during 1931-32 marketing season. Pork exports 1931-32 marketing season were 30 per cent less than one year ago and 60 per cent less than two years ago. Lard exports declined only 1 per cent.
 - c. Normally 12 to 18 per cent of U. S. pork production is exported, which constitutes 80 to 90 per cent of all meat exports and from 10 to 12 per cent of all agricultural exports.
 - d. International trade restrictions also tend to reduce foreign demand. Ham, bacon, and lard exports to Great Britain are on an allotment basis.
4. *Prices hit new lows in 1932. Improvement in 1933 depends upon general economic conditions.*
 - a. Hog prices reached lowest level in 50 years in December, 1932. Average price in Chicago last week in December was \$2.95 per cwt.
 - b. Whether reduction in 1933 supply will result in higher prices will depend upon improvement in the general economic situation affecting consumer demand.
5. *Suggestions.*
 - a. In many localities where skim milk is available, or where there is surplus of feeding grains, hogs still offer most favorable market for these materials.
 - b. Hog feeders will do well to finish and market at lighter weights, 160 to 200 pounds. Premium on light weights reached 85 cents per cwt. during summer of 1932.
 - c. Lightest marketing months for corn belt area are April and August, or September, which accounts for seasonal price upswing at this time.
 - d. Light weights and earlier marketing are ways in which Michigan producers can partially overcome higher feeding costs as compared to main corn belt area.

BEEF CATTLE

1. *Cattle supplies are still increasing.*
 - a. Total number now 14 per cent larger than in 1928. Fifth consecutive yearly increase since low point in 1928.

- b. Expansion during last two years resulted largely from holding back of cows. Total number beef and dairy cows largest on record. Calf crop for 1933 expected to be largest ever raised.
 - c. Increase in cattle numbers not yet reflected in market and slaughter supplies. Probable that slaughter supplies for both cattle and calves for 1933 will be larger than for 1932.
 - d. Supplies of cattle and beef from foreign countries for export to United States during 1933 expected to be larger than during 1932.
 - e. Cattle imports into United States in 1932 totaled 104,000 head—91,000 from Mexico and 13,000 from Canada.
 - f. Twenty-two million pounds of canned beef came into United States from South American countries in 1932. There was twice this amount in 1930.
2. *No significant improvement in demand for beef expected until consumer buying power increases.*
- a. Per capita consumption of all meats and lards federally inspected was 99 pounds in 1932, which is about the same as in 1931.
 - b. Decrease greater in beef and lamb than in hogs, but the decline in retail prices of beef and lamb was less than for pork.
3. *Increase in feeder demand during 1933 expected.*
- a. Supply available for feeding is larger, and there is an abundant supply of low priced feed in all principal cattle feeding areas.
 - b. Funds for financing feeding operations are now available through the Regional Agricultural Credit Corporation.
4. *Prices are at very low levels.*
- a. At the close of 1932 prices for slaughter cattle reached lowest point in 25 years.
 - b. Gross return to producers for cattle and calves slaughtered in 1932, 148 million dollars, or 27 per cent less than for 1931.
 - c. Decline during the year has been much greater on choice than on common steers. Spread between these two extremes was \$6.33 in December, 1931 and only \$2.92 in December, 1932.
 - d. Reduction in prices from December, 1929 to December, 1932, not greatly different for livestock than for other agricultural products—Hogs, 68 per cent; beef cattle, 60 per cent; lambs, 63 per cent; sheep, 69 per cent; dairy products, 51 per cent; fruit and vegetables, 64 per cent; wheat, 71 per cent; corn, 75 per cent; cotton, 66 per cent; and poultry, 52 per cent.

5. *Long-time production outlook.*

- a. Beef cattle numbers are still increasing and will probably continue to increase for the next two or three years unless there is a marked increase in numbers slaughtered which appears unlikely at present.
- b. Present production of meat animals seems fairly well balanced as to proportion of the three species (cattle, hogs and sheep), as to average feed produced, and as to consumer demand.

6. *Suggestions.*

- a. Michigan has advantage of proximity to eastern markets which eliminates some expense for freight.
- b. An efficient breeding herd will produce a calf crop from unmarketable roughage and pasture. As a result a portion of transportation costs and the chance for a speculative loss, such as is often incurred where feeders are purchased, are eliminated.
- c. Low prices of good farm grains do not warrant purchase of low grade by-products and substitute feeds.
- d. High grade protein rich feeds may be profitable in many fattening calf rations.
- e. Feeders bought as calves and light, thin yearlings will gain more efficiently and sell to better advantage than heavier cattle.

SHEEP AND WOOL

1. *Moderate decrease in sheep numbers expected during next few years.*

- a. Number of lambs and sheep on feed January 1, 1933, probably 15 per cent less than a year ago due to heavy death losses and an 8 per cent reduced lamb crop in 1932.
- b. Lamb crop for 1933 may be slightly larger than in 1932 due to small percentage of lambs saved last year.
- c. Prospect of extensive forced liquidation appears to have been reduced for the time being.

2. *Improvement in demand awaits increased employment and consumer buying power.*

- a. Although slaughter was reduced slightly in 1932 declining consumer demand caused prices to fall.
- b. Trend of sheep and lamb prices has been sharply downward since 1929.
- c. Lamb prices in Chicago in May, 1932, lowest in 30 years—about $\frac{1}{3}$ of the prices of three years earlier. Advances in Chicago lamb prices from October to December somewhat encouraging.

- d. Prices of feeder lambs fairly steady last half of 1932. Spread between feeder and slaughter lambs less than year ago. About \$1.00 margin December, 1932, compared to \$1.50 margin on December, 1931.
3. *Wool production high in both United States and foreign countries, and business depression has affected wool-textile industries adversely.*
 - a. Total production wool (shorn and pulled) in the United States for 1932 approximately 400 million pounds.
 - b. Only 15 million pounds imported in 1932 compared to 98 million pounds in 1929. 1932 imports smallest in 50 years.
 - c. Over next few years probable that production and consumption in United States will be fairly well balanced.
 - d. Since early summer wool consumption in U. S. has increased. Consumption still well above average for 1932.
 - e. Although wool prices in U. S. continued downward first half of 1932, improvement in domestic demand has strengthened prices since.
 - f. In June, 1928, United States farm prices of wool were 38.7 cents per pound. In July, 1932, they were 7 cents. By December they had reached 9.2 cents.
5. *Long-time production outlook.*
 - a. Returns from wool and lambs in 1932 in many cases hardly sufficient to pay operating costs, leaving nothing for taxes and interest.
 - b. Present policy of government loaning agencies (Intermediate Credit Bank, and Regional Agricultural Credit Corporation) has improved the financial situation and will probably prevent any general immediate liquidation of western sheep industry.
 - c. Any recovery in prices will come from improved purchasing power and not from reduced supplies.
6. *Michigan situation and recommendations.*
 - a. Feeder lambs bought in Chicago for 5 cents sold in Detroit at 6 cents, pay interest, marketing costs, 63 cents per cwt. for grain and \$6.81 per ton for hay.
 - b. Lambs, bought at 5 cents, gaining 30 pounds per head, and sold for 4.65 cents would return nothing for the feed.
 - c. In view of low prices for competing meats, prices paid for feeder lambs should be on a conservative basis.
 - d. Forced liquidation would prove more unfavorable to regions far from market than to Michigan.

- e. Michigan farmers who have a surplus of pasture and roughage should find present low price of ewes attractive.
- f. Michigan producers should sell only well finished lambs. Sharp discrimination between finished and unfinished lambs.
- g. Advisable for Michigan producers to force lambs for early summer market before western lambs are available.

WHEAT

1. *Wheat stocks, from both a national and a world standpoint, are still at a burdensome level.*
 - a. The occurrence of a short world crop, such as that of 1924-25, would be decidedly helpful in reducing these stocks.
 - b. In the absence of any such short crop, the high level of stocks may be expected to decrease at a very slow rate.
 - c. This downward trend will depend upon increased consumption and any decreases made in world acreage.
 - d. Increase in consumption of wheat will be hastened by any improvement in business conditions.
2. *Export demand for United States wheat in next few years is expected to face strong foreign competition.*
 - a. Surplus wheat producing foreign countries are favored over the United States by lower labor and transportation costs, depreciated currency, and maintenance of strong trade barriers.
 - b. Deficit foreign wheat countries have tended to expand their acreage.
3. *United States winter wheat crop for harvest in 1933 promises to be only a little more than one-half that harvested in 1931 and probably 15 per cent less than that harvested in 1932.*
 - a. The market outlook depends to some degree upon the acreage sown to spring wheat.
 - b. If spring wheat acreage remains same as that of last year, and only an average yield is obtained, the total United States wheat crop in 1933 may be expected to be 10 per cent less than in 1932 and nearly 30 per cent less than in 1931.
4. *Michigan white winter wheat still brings something of a premium over soft red winter wheat.*
 - a. Many local millers however prefer the soft red wheat to white and are discouraging further expansion in white wheat acreage at the expense of the red.

- b. While wheat prices are low, the returns from Michigan wheat have been no worse than from other small grains, corn and beans.
 - c. The 1933 wheat acreage in Michigan is below the average of the past ten years, although an increase over 1932.
5. *Bald Rock is a new beardless soft red winter wheat.*
- a. It was developed by the Michigan Experiment Station and is characterized by very acceptable milling quality, winter hardiness, an unusually stiff straw and good yield under a wide range of conditions.
 - b. It was introduced in 1931 and seed will be available in commercial quantities for 1933 plantings.
 - c. Red Rock, a bearded soft red winter wheat, and American Banner, a beardless white winter wheat are other well adapted varieties which help insure lower bushel growing costs because of high productivity.

FEED CROPS (CORN, OATS, BARLEY AND HAY)

1. *1932 corn and hay crops in Michigan were large, but the barley and oats crops were small.*
 - a. The grain equivalent of the corn crop was 48 million bushels. After deducting acreage hogged off and cut for silage approximately 28 million bushels harvested. Average yield 33 bushels per acre. Largest crop since 1925.
 - b. On account of low yields and reduced acreage the oats crop was only 34 million bushels—22 per cent less than 1931 crop. At least $\frac{7}{8}$ of oat crop usually fed on farms where grown.
 - c. About $6\frac{1}{2}$ million bushels barley produced in 1932. Due to heat and drought in June, yield per acre only 80 per cent of past 10-year average.

2. *As cash crops, returns are too low to be profitable.*
 - a. December 1 farm prices were 28 cents per bushel for corn and barley, and $17\frac{1}{2}$ cents for oats. On this basis the cash value of these crops in Michigan for 1932 was only \$9.64 per acre for corn, \$5.60 for barley and \$4.59 for oats.
 - b. Under these conditions there is no satisfactory return from corn, oats, and barley except as feed crops for live stock.
 - c. Under more normal conditions barley for malting and pearling can be grown profitably as a cash crop, as it sells at a premium over feeding barley.

3. *1932 hay crop for Michigan was above average; proportion devoted to alfalfa steadily increasing.*
 - a. Although acreage cut for hay was 12 per cent below normal the total Michigan hay crop for 1932 was 12 per cent above average.
 - b. Alfalfa acreage is now one-third of the total, and produces 45 per cent of the hay.
 - c. About 740,000 acres of alfalfa cut in 1932. This is ten times the acreage cut in 1919.
 - d. Hay prices extremely low. \$5.50 per ton on December 1, 1932 compared to \$12.50 for the 10-year average.
 - e. The value of an average acre of alfalfa hay in Michigan in 1932 was \$12.03. For an acre of tame hay other than alfalfa it was \$4.93.

FIELD BEANS

1. *The United States production in 1932 was 22 per cent less than the average of preceding three years.*
 - a. There was a marked reduction in acreage in practically all important bean producing states.
 - b. High average yields per acre in some of the pea bean states, particularly in Michigan, offset to a great extent the reduced acreage and resulted in an abnormally heavy production of pea beans.
 - c. In the Rocky Mountain states, low yields and a marked reduction in acreage resulted in the lowest production of Great Northerns since 1926 and the lowest of Pintos since 1922.
2. *Carry-over from previous crop was unusually heavy.*
 - a. On September 1, 1932, approximately 2,000,000 bags of the 1931 crop remained in producing states.
 - b. Adding to this carry-over the 1932 crop of over 10,000,000 bags, a total supply of about 12,000,000 bags was available for the current marketing year.
3. *Supply is not in excess of normal requirements.*
 - a. The average annual disappearance during the past three years has been about 13,000,000 bags.
 - b. Present low prices and relative high food value of beans are favorable for maintaining this recent rate of consumption.
 - c. Rail shipments during the first four months of the current marketing season have been below average for the United States but above average for Michigan.

4. *Imports and exports, September-November, 1932, were the lowest for those months in any of the last ten years.*
 - a. From September, 1931 to August, 1932, there were net exports of 72,000 bags.
 - b. In the corresponding 1930-31 marketing season there were net imports of 508,000 bags.
 - c. Decline in imports to a point below the volume of exports was due to low prices in 1931 and 1932.
 - d. Imports will not be an important factor until domestic prices exceed the tariff of 3 cents per pound.

5. *Michigan crop was 938,000 bags larger in 1932 than in 1931, notwithstanding a 22 per cent decrease in acreage. **
 - a. As Michigan produces the major portion of the Nation's pea bean crop, the increase in U. S. production of that variety was about equal to the increase in Michigan.
 - b. This greatly increased supply and accompanying lower prices is now giving Michigan pea beans an advantage in eastern markets over western Great Northerns with their necessary higher freight costs.

6. *Light and dark red kidney production was 42 per cent less than in 1931.*
 - a. The Michigan crop in 1932 of light red kidneys was about 4 per cent less and of dark red kidneys, 12 per cent greater than in 1931, from a considerably smaller acreage of both kinds.
 - b. While there was a relatively heavy carry-over on September 1, 1932, a slight advance in prices of both light and dark red kidneys during the late summer of 1932 has been maintained.

7. *An average yield in 1933 with no change in acreage from 1932 would give a United States production of approximately 9,000,000 bags.*
 - a. This would be 1,000,000 bags less than the 1932 crop and 4,000,000 bags less than the average annual disappearance during the last three years.
 - b. Such a crop, with a September 1, 1933, carry-over no larger than last year's would create a more favorable statistical position.
 - c. The 1932 crop of pea beans being proportionately larger than of other varieties, an expansion of the acreage of that variety would probably have a more detrimental effect on the market than if made in some of the other varieties.

POTATOES

1. *Intentions to plant in 1933 were reported on January 1 to be a decrease of 2.9 per cent in total United States acreage as compared with 1932.*
 - a. Michigan reported a prospective decrease of 1 per cent.
 - b. The 18 surplus late states reported a decrease of 4 per cent and the 12 deficient late states an increase of 3.2 per cent.
 - c. The 7 intermediate states reported a decrease of 3.9 per cent and the 11 early states a decrease of 2.4 per cent.
2. *Southern commercial growers reported a prospective decrease of 11 per cent in the acreage grown for shipment to northern markets.*
 - a. About one-third of the early southern crop is usually shipped to northern markets, the other two-thirds being required for home and local use.
 - b. Late spring marketings of the 1932 northern crop will be benefited by any reduction in competition from the early southern crop.
 - c. Michigan growers who are holding potatoes for spring sale should study the forthcoming monthly official crop reports covering this early southern crop.
3. *Carlot shipments for the current marketing season up to January 21 from the 18 late surplus states amounted to 66,000 cars as compared with 89,000 cars to the same date from the previous crop.*
 - a. Because of the increase in volume of truck shipments from year to year, the extent of which is unknown, rail shipments do not afford a definite clue to the relative volume of stock remaining in the hands of dealers and growers at any definite date.
 - b. Commercial growers are faced with increased competition from potatoes raised in home and local gardens.
 - c. Potato stocks in the hands of growers and dealers as reported to the U. S. D. A. for January 1, 1933, were 7,500,000 bushels less than on the previous January 1 for the surplus late states, and 1,500,000 bushels more for the deficient late states.
 - d. The current price level of all farm commodities is apparently a more important influence upon potato prices than production and demand factors at the present time.
4. *A reduction in freight rates on potato shipments from Michigan into 12 states located south of the Ohio river and east of the Mississippi river went into effect January 22, 1933.*
 - a. This reduction varies from about 15 to 30 cents per cwt. to different points within the territory named.

- b. Reductions in rates to several other points have also become effective within recent months. Reductions from Cadillac to Detroit amount to 8 cents; Cincinnati, 8 cents; Indianapolis, 8 cents; Chicago, $8\frac{1}{2}$ cents; and St. Louis, $9\frac{1}{2}$ cents.
 - c. These changes have brought the rates from Michigan into alignment with those from other important shipping states which opens up a wider field of markets for Michigan potatoes.
 - d. They will also lessen the pressure upon local markets where prices have been adversely affected in recent years by the price-cutting tactics of some truckers.
5. *Average yields in 1933 from the intended acreage would result in a United States crop about 5 per cent larger than was produced in 1932.*
- a. Such a crop would be approximately the same size as that grown in 1931.
 - b. The average yield per acre for the 5-year period, 1927-1931, was 114 bushels per acre. The crop of 1932 averaged only 106 bushels per acre.
 - c. Because of acreage decreases in some of the leading commercial areas having relatively high average yields and because less fertilizer than usual may be used in 1932, the average yield for the entire country may be lowered somewhat.
 - d. Maine growers reported on January 1 an intended acreage decrease of 12 per cent, and Idaho growers a decrease of 7 per cent.
6. *Although low prices are likely to prevail for 1933, Michigan growers are warranted in maintaining their normal plantings.*
- a. On the average no other crop in potato growing sections brings as large a total cash return per acre.
 - b. For many sections there seems to be no other cash crop that can be profitably substituted for potatoes.
 - c. Applications of commercial fertilizer may be reduced, but potatoes should follow alfalfa, sweet clover, or clover.
 - d. Only good seed from disease-free areas should be used. Supply is adequate this year and prices are low.
 - e. Growers who can produce a fancy grade of potatoes and market to a select trade can obtain a premium over U. S. No. 1 grade.
 - f. Although prices for certified seed have been discouraging in the past two seasons, some growers in the northern districts may find this a satisfactory venture.
 - g. For growers with suitable soil and located near good markets the production of early potatoes offers a favorable opportunity.

CLOVER AND ALFALFA SEED

1. *Alfalfa, sweet clover and alsike clover seed supplies are much lower than last year and may be nearly absorbed during the spring seeding season.*
 - a. Red clover seed supplies are only slightly below the 5-year average, hence are probably ample and less likely to be cleaned up as fully as those of the other seeds.
 - b. Available supplies of alsike clover seed are the smallest in several years.
2. *Red and alsike clover seed production in 1932 was estimated at 101,268,000 pounds compared with 68,304,000 pounds in 1931 and 89,442 in 1930.*
 - a. Imports of red clover seed were negligible in 1932; exports were also relatively light.
 - b. There was also a lack of imports, but some increase in exports of alsike clover seed during 1932.
 - c. A little increase in alsike production in 1932 over 1931 was more than offset by a sharp reduction in carry-over.
 - d. Small crops in Canada and Europe preclude any material increase in imports from those countries.
 - e. Red clover hay acreage in the North-Central states was small in 1932 because of the drought in 1930 and 1931.
 - f. Farmers in those states will probably sow as much red clover seed in 1933 as they can finance.
3. *Wholesale prices of red clover seed in January, 1933, were about 35 per cent lower than a year ago and about 65 per cent lower than for the 5-year period, 1927-1931.*
 - a. Alsike prices on the same date were about 25 per cent lower than the previous year and about 60 per cent lower than the 5-year average.
 - b. These low seed prices present a favorable opportunity for farmers to build up their clover hay acreage to normal proportions.
4. *Alfalfa seed supplies for the entire country are the lowest in four years.*
 - a. The 1932 crop was the smallest in ten years.
 - b. Only 32,300,000 pounds were produced in 1932 compared with 50,300,000 in 1931 and 70,000,000 in 1930.
 - c. Exports in 1932 were nearly double the 5-year average.
 - d. Light imports from Canada are expected because of its small 1932 crop.

5. *Some expansion in alfalfa hay acreage is probable in the north-central states.*
 - a. Reduced purchasing power will work against this expansion.
 - b. Prices of alfalfa seed remain about the same as a year ago.
 - c. Grimm seed prices are about 40 per cent lower than the 5-year average.
6. *Michigan alfalfa seed situation is very similar to that in the north-central group of states.*
 - a. Michigan production in 1932 was only 40 per cent as much as in 1931.
 - b. There are 70,000 pounds of Michigan certified seed this year as compared with 300,000 last year.
 - c. However, about 200,000 pounds of this were carried over.
 - d. The wholesale price of Michigan certified seed is about 20 per cent less than in 1932.
7. *Several Michigan counties reported good seed crop from second cuttings in 1932.*
 - a. The crop from first cuttings was mainly in northern counties of the Lower Peninsula and in eastern counties as far south as and including Saginaw county.
 - b. Michigan farmers can well afford to study the possibilities in alfalfa seed production, as it affords a valuable cash crop in years when the weather favors seed planting.

SUGAR BEETS

1. *Michigan sugar beet industry came back strongly in 1932 despite low sugar prices.*
 - a. Eleven mills operated in 1932 as against six in 1931.
 - b. 120,000 acres planted to sugar beets in 1932 compared to 64,000 acres average for the previous 4 years.
 - c. Yields were good in 1932, averaging nearly 10 tons per acre.
 - d. Present indications are that 12 and possibly 13 mills may operate in Michigan in 1933.
2. *Prices for sugar are low but returns to growers per acre of sugar beets were good for the 1932 crop.*
 - a. Contracts offered by a number of the factories operating last year provided for a 50-50 division of the net sales of sugar, pulp, and molasses.

- b. On the above contract basis indications are that gross returns to growers will average close to \$6.00 per ton for the 1932 crop.
 - c. On this basis, sugar beets proved to be the most profitable field crop growers in sugar beet areas produced in 1932.
3. *Sugar beet prospects.*
- a. From a world point-of-view consumption of sugar exceeded production this past year, resulting in some utilization of world surplus stocks.
 - b. If present sugar tariff schedules are maintained, Michigan sugar industry should continue as a beneficial factor for Michigan agriculture.

APPLES

1. There has been no shortage of apples in years of favorable growing conditions nor is there any immediate prospect of a shortage.
2. In Michigan some of the old farm orchards are being destroyed, but new plantings and replacements in 1933 will be nearly, if not fully, as great as in other years.
3. Present prospects are for a larger commercial apple crop for the U. S. in 1933 than in 1932, if weather conditions remain favorable in all sections.
4. Additional commercial plantings are justified only where unusually favorable conditions exist for the production of good quality fruit at low cost.
5. Michigan growers will undoubtedly find a ready market for well colored, good-sized fruit that is free from insect and disease injury.

PEACHES

1. For the country as a whole very few peach trees have been planted in the last few years.
2. Trend of production in North Central States will probably not change much in next few years. A decreasing tendency is noticed for Illinois.
3. Peach production for Michigan expected to be somewhat greater during the next five-year period than during the past five years.
4. There is no justification for any great increase in the acreage of peach trees in Michigan, but present acreage should be maintained.
5. A clean crop, large-sized fruit and high yields are necessary if profits are to result.

6. Varieties that can be marketed advantageously shortly after crops from Illinois and other southern states are consumed include: Rochester, South Haven, Hale Haven, Elberta, J. H. Hale, and Wilma.

CHERRIES

1. Number of cherry trees now in orchards are sufficient to maintain the upward trend in production, which has been in evidence since 1924, for at least another five years.
2. During period 1920-1930, total number of cherry trees in U. S. increased 17 per cent. More than $\frac{1}{3}$ of the total trees in orchards were not then of bearing age.
3. If the moderately heavy stocks on hand from the 1932 and previous packs are moved prior to the 1933 season it is possible that the 1933 season will be somewhat improved over the 1932 season.
4. Additional plantings of sour cherries are not warranted at this time except as replants in existing orchards and in localities where there exists a good local market for fresh fruit.

STRAWBERRIES

1. Preliminary estimates indicate that the 1933 commercial acreage for harvesting in 1933 will be somewhat larger than the acreage in 1932.
2. If weather and growing conditions are more nearly normal, an improvement in the quality of the crop may be expected which should result in a more favorable market situation.
3. Reports indicate that the plantings in the late states, which include Michigan, have increased slightly over 1932, but a considerable increase is noted for the second early and intermediate states.
4. In view of the competitive situation and present economic conditions, any material increase in acreage for harvesting in Michigan does not seem warranted at the present time.
5. However, Michigan growers should not hesitate to maintain the present strawberry acreage by planting varieties which will mature after the peak of the southern shipping season is over.

COMMERCIAL VEGETABLES IN GENERAL

1. Market outlook for vegetables during 1933 appears to be no more favorable than in the last two years.
2. There has been a marked decrease in consumer buying power and a tendency to increase home and local gardening.

3. There is a market for Fancy, No. 1 and No. 2 grades, but selling produce that will not come up to No. 2 grade to hucksters will eventually ruin the market for Michigan producers.
4. 1933 should be a good year to put part of vegetable acreage into clover, thus cutting down on acreage and fertilizer and labor expense.

ONIONS

1. 1932 late commercial crop largest ever grown: 20 million bushels, 60 per cent larger than 1931 crop.
2. Supply in storage January 1, 1933, largest on record: 6,814,000 bushels compared to 3,066,000 bushels one year ago.
3. Average seasonal price paid to grower in late states up to December 1, 1932, was only 22 cents per bushel compared to 80 cents in 1931, and 44 cents in 1930.
4. Now appears likely that 1933 acreage of late crop onions will be 15 to 20 per cent smaller than in 1932.
5. 1933 plantings of Bermuda and Creole onions in early states not being greatly reduced.
6. Everything considered, marketing prospects for 1933 season are not much better than those of last year.

TOMATOES

1. Tomato acreage increase and better yields than in 1931 sent production in the late states for 1932 to a new peak and prices to a new low.
2. Production was increased 36 per cent and prices fell about 40 per cent.
3. Quality of tomatoes sold was above average, and early prices were fairly good. The favorable early prices were probably due to the poor crop in the intermediate states.
4. If 1933 crop in intermediate states is average, early prices may not again be so favorable.
5. Smaller acreages and better quality would materially ease the tomato marketing situation in 1933.

CABBAGE

1. 1932 prices on late cabbage were very poor and storage carry over on January 1, 1933, is nearly 25 per cent larger than on January 1, 1932.
2. Due to low yields in 1932 in the second early states and the favorable prices received, an increase in acreage of nearly 20 per cent seems likely.

3. If, in addition to this increase in acreage in the second-early states, the late states plant the same acreage as last year, and an average yield is obtained, market prospects for coming season do not look favorable.
4. Special efforts should be made to produce high quality, small, hard heads this coming year.

MELONS

1. The late states had 19,000 acres of cantaloupe in 1932, 4 per cent more than in 1931, about equal to the average for preceding 5 years.
2. About 85 per cent of this acreage was in Colorado, New Jersey, and *Michigan*.
3. Yields were about 5 per cent above 1931, but 10 per cent below the previous 5-year average.
4. Average prices received by growers in 1932 were about 22 per cent below 1931 prices. Michigan prices were about 35 per cent lower.
5. Prices for 1933 will probably not be greatly higher than in 1932, but "No. 1" melons will find a market.
6. 1933 should be a good year to incorporate organic matter in part of the melon acreage by growing green manure crops.

ADJUSTMENTS AND LOCAL FARM RELIEF

The present distressed condition of agriculture is primarily due to the fall in the price level and the business depression. The important cures for the agricultural situation are consequently external to the individual farmer. Since the period of the distressed agricultural condition is uncertain farmers must find methods of adjusting their farm operations to minimize the influence of an unfavorable price and business situation. This publication considers primarily only those types of farm relief which can be done by individual action or local-group action to improve the individual and local farm condition.

1. *Secure more living from the farm.*
 - a. The increased use of fresh and home-cured meats, fresh and home-canned fruits and vegetables, home-baked bread and other home-produced foods, larger farm gardens, and the increased use of the wood-lot will reduce the cash outlay.
 - b. In 1931, records from 265 farms showed value of living obtained from farm ranged from \$64 to \$593 per farm.
 - c. Of these 265 families, 7 per cent used no home produced poultry or poultry products, 11 per cent no fruit, 4 per cent no potatoes, 33 per cent no pork, 55 per cent no beef, 85 per cent no mutton, 18 per cent no fuel, and 85 per cent no honey.

2. *Increase the volume of the farm business per acre.*

Many Michigan farms have too small a volume of business per acre for the available labor, buildings, and equipment. Much of the overhead expense on a farm remains the same regardless of the income or volume of business handled.

- a. Keep enough livestock to balance the crops program and to utilize the available labor and buildings.
- b. Keep more of the intensive types of livestock. Examples would be dairy cows and poultry.
- c. Increase production per animal by relatively cheap methods. This may be done by culling out livestock where replacements can be made with better animals and by reducing death losses at birth, and by following other good livestock production practices.
- d. Produce higher crop yields per acre. This may be accomplished by cropping only the best land and by following good crop practices.
- e. Produce a high percentage of crops having the highest feed, cash or fertilizer value.
- f. Take advantage of any opportunity to increase the farm income through sources outside of the farm business, such as labor off the farm, etc.

3. *Make increased use of home-grown feeds.*

- a. Produce more of the protein requirements for feeding livestock by growing legumes, chiefly alfalfa.
- b. Improve the pasture for dairy cows by the use of alfalfa, sweet clover, or sudan grass.
- c. Making more use of home-grown feed will avoid the marketing costs of purchased feed.

4. *Do not make radical changes in farm organization.*

- a. Base plans on prospective rather than present prices.
- b. Produce crops and livestock adapted to conditions.
- c. Consider costs and risks of making changes.
- d. Keep and study farm records and plan the farm business.
- e. Use the farm budget in making adjustments.

5. *Market Intelligently.*

- a. Plan production program with market outlets in view.
- b. Put special emphasis on producing high quality products.
- c. Grade products carefully to obtain price premium.

- d. Use cooperative organizations for buying and selling :
 - (1) Efficient cooperative marketing organizations reduce marketing costs.
 - (2) Commodity sales agencies make possible a more "orderly marketing" program.
 - (3) Cooperative organizations strengthen farmers' bargaining power.
 - (4) Cooperative principle of selling on graded basis improves quality and increases price.
 - e. Selling direct to consumers, to retail stores or from roadside stands offers an advantage to some farmers.
6. *Make use of Federal credit facilities.*
- a. Some reorganization of the following governmental agencies is contemplated by the new administration, but undoubtedly their chief functions will continue.
 - b. The Federal Land Bank at St. Paul with its affiliated local farm loan associations is a source of farm mortgage credit.
 - c. The Regional Agricultural Credit Corporation of Minneapolis is a source of production credit on livestock collateral.
 - d. The U. S. D. A., through local committees again offers small loans to farmers for the purchase of seed, feed for work stock, fertilizers and labor with crops as collateral.
7. *Adjust Farm Debts.*
- a. Make new arrangements to extend debt payments over a longer period of time with perhaps some reduction in interest.
 - b. Take advantage of mortgage debt refunding facilities through the Federal Land Bank.
 - c. Set up local "conciliatory commission" in accordance with recent federal revisions of bankruptcy laws to adjust debts between debtor and creditor.