MONTHLY REVIEW

Farm output up despite labor drop

The past 20 years have been years of dramatic change in American agriculture. During this period, farmers expanded their annual output of crops and livestock products over 50 percent. They have accomplished this increase in annual production using 50 percent less labor and 2 percent fewer crop acres than they did two decades ago. The annual increases in product output since 1940 have exceeded population increases. Surpluses have plagued the industry.

Why has agriculture experienced such a technological explosion during the last two decades? First, the vast expansion in the demand for food which followed the outbreak of war in Europe lit the fuse. Farmers moved to take advantage of a profit potential; incomes and income opportunities, rising at a rapid pace, made possible the employment of new technical production methods. The additional and upward revisions in price supports also added fuel to the productivity fire—further incentive to add capital and increase productivity.

The forced release of labor during the war and the attraction of nonagricultural jobs following the war left less labor in agriculture to accomplish the task. Thus, more capital was required to increase the pro-

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ductivity of the remaining workers.

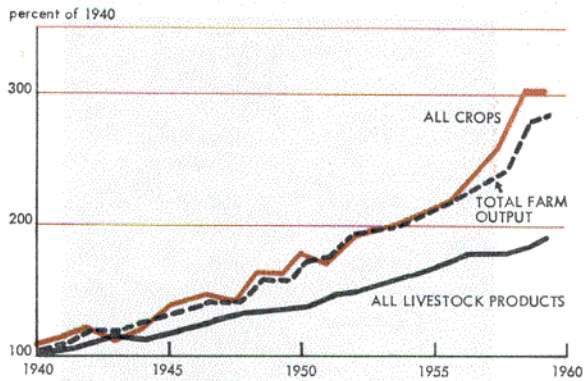
And last but not by any means least is the fact that farmers found, and are continuing to find, that even at prevailing cost-price ratios, they can increase their net incomes by expanding farm units to make fuller use of available labor. Labor is released from agriculture as the smaller, often less profitable farm units are absorbed in this expansion. Further, the output from these transferred acres increases under the better management of the larger units.

The decrease in labor employed in agriculture is probably the most significant change in the structure of agriculture to occur since 1940. During these two decades, 3.6 million workers were released to more productive work in other lines.

Labor productivity changes

More production with less labor could only be accomplished through increasing the productivity of the labor remaining in agriculture. And this has indeed been done; the output per man-hour in agriculture today is nearly three times what it was in 1940. Labor productivity has risen more rapidly in crop production than in livestock production for several reasons, probably the most significant of which is the fact that as farmers add larger tillage and harvest machines, they immediately see the need to add cropland to make use of their added productive capacity. In livestock production, the size of the operating unit may be more rigidly fixed for a longer period of time by reasons of fixed building facilities—the operator may not as readily visualize the excess labor capacity in his livestock operation, and thus the need to expand. The greatest gains in labor productivity come with expansion and reorganization of enterprises, and these changes have been most dramatic in crop production.

Chart 1—Farm production per man-hour, U.S. (1940=100%)



Crop and livestock yields advanced sharply

The advancement in farm labor productivity is a good measure of changes in efficiency in farm production; but it would be inaccurate to attribute anything like all the gains in efficiency to farm labor. Farm labor productivity reflects the net effect of improvements in mechanization and work organization along with improved productivity per acre in crop production and per unit of livestock production. During the 1940 to 1960 period, both the output per crop acre and the output per animal breeding unit advanced nearly 40 percent.

Favorable crop input-output cost-price ratios stimulated increased use of yield-improving practices, and output per acre advanced sharply. Fertilizer, improved crop varieties, increased use of irrigation and improved insect and plant disease control are a few of the other factors which have

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contributed to the crop productivity advance.

Output per animal breeding unit advanced in response to a wide variety of improvements in livestock husbandry. A few examples of the major sources of increased livestock productivity during the last 20 years are improved sanitation and disease control; feeding of improved rations, and feeding at heavier rates because of favorable feed-product price ratios; and closer culling and selection of breeding herds.

Capital investments increased

Capitalization of the industry was necessary to achieve the advance in productivity. And in that capitalization process, agriculture has become a new and expanding market for a host of production supplies.

While farm labor dropped in use by 50 percent during the last two decades, the use of power and machinery increased nearly two and a half times; fertilizer use tripled; the use of purchased feeds doubled; and, in addition, agriculture turned to buying a host of new products to step up output per acre, per animal, per man.

Changes in the relative importance of the major production inputs for 1940 and 1959 are shown in Chart 2; the percentage changes are based on constant dollar value of the inputs. Labor accounted for 56 percent of total production inputs in 1940, but dropped to 29 percent by 1959. During the same period, machinery and power use advanced from 10 to 22 percent of the total input mix. Real estate as a proportion of total inputs remained essentially unchanged.

The changes in production techniques have resulted in a continual trend toward larger, more highly capitalized farm units. Combining the effect of the increased size of farm units with the general increase in prices, a sixfold increase has resulted in the average investment per farm during the last 20 years. In terms of constant dollars, the advance in production assets used per farm since 1940 amounted to 80 percent.

The rise in farm asset values, particularly of farm real estate, has persisted in spite of the fact that there has not been a corresponding rise in farm incomes. This has led to a return on farm assets of less than 3 percent, the lowest rate realized for many years.

Real estate values have been bid upward in the face of declining incomes because farm operators have found farm expansions very profitable. In many cases the farmer finds that his machinery and labor are under-utilized. He is thus in a position to operate a larger unit with little added investment in machinery or with little labor in

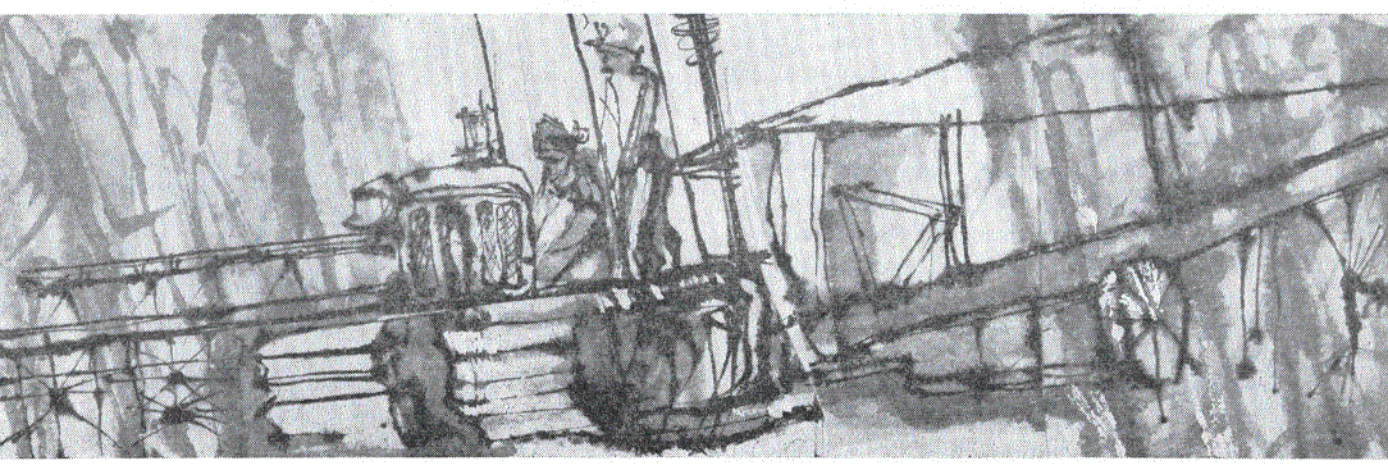
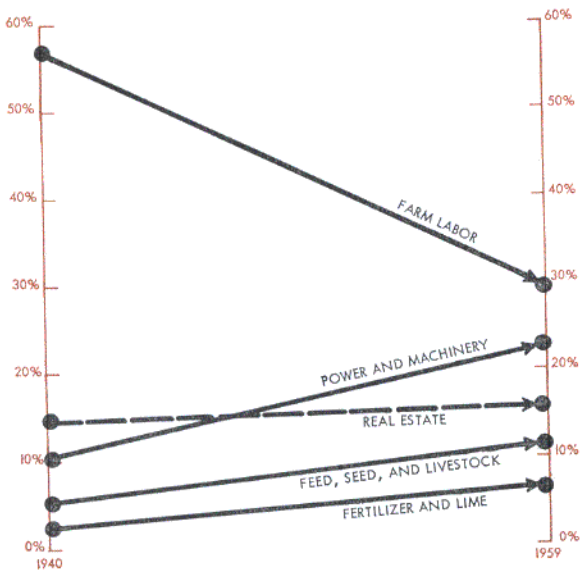


Chart 2—Major inputs in percentage terms



addition to his own available labor. The price which this farmer can pay for additional acreage is considerably above the price which an individual could pay for the same acreage as a single operating unit, because he has a base unit which is currently covering much of his costs and living expenses. These conditions have led to a land market which is based almost entirely on the value of land being added to existing farm units. The increasing importance of this portion of the land market is shown in Chart 3. Over 50 percent of the land transfers in the United States in 1960 went to farm enlargement, whereas in 1950 the proportion purchased for farm expansion was only a little over 20 percent. In the wheat areas, where mechanization has moved at a fantastic rate, 69 percent of the land transfers in 1960 were added to other farm units.

Changes in farm numbers and farm size

The expansion in the size of farm units is reflected in the changes noted in the Agricultural

TABLE 1—FARM NUMBERS AND AVERAGE SIZE OF FARMS

	1940	1950	1959[1]
		(thousands)	
Number of farms			
United States	6,097	5,379	3,936
Minnesota	197	179	148
Montana	42	35	30
North Dakota	74	65	55
South Dakota	72	66	56
Average number of acres per farm			
United States	174	215	302
Minnesota	165	184	211
Montana	1,111	1,689	2,214
North Dakota	513	630	755
South Dakota	545	674	805

[1] Farm numbers for 1959 were made comparable to the earlier periods by including the farms that would have been eliminated by the 1959 change in the Census definition of a farm.

Census reports of the last two decades. During the 20-year period, the average number of acres per farm in the United States has increased 74 percent to an average of 302 acres per farm in 1959. Since the land devoted to farming has remained relatively fixed, it follows that farm numbers have

Chart 3—Land purchases to enlarge farms

(as a percent of total land transfers)

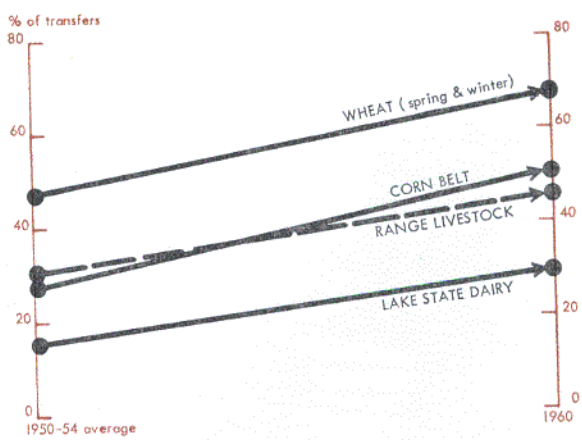
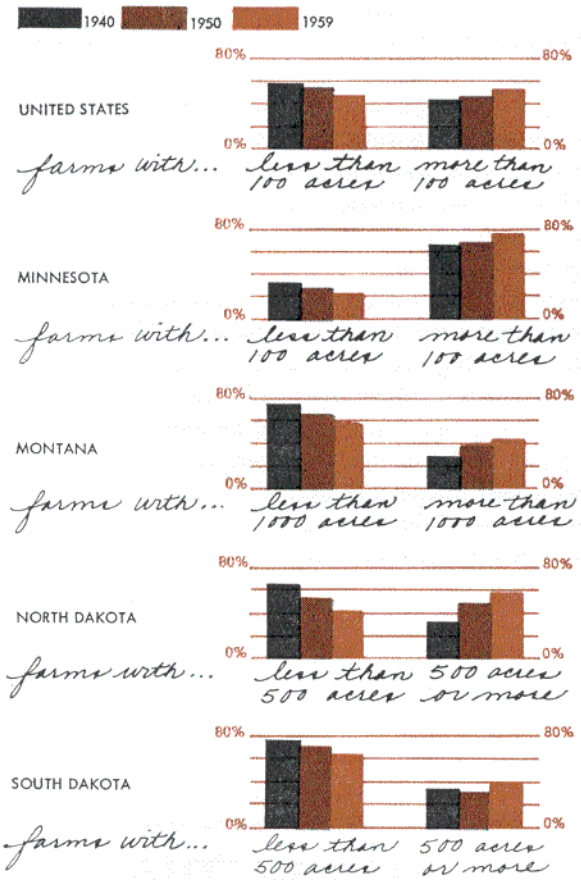


Chart 4—Percent of farms in smaller size class compared with larger size class, 3 selected years



been greatly diminished during the period; the total number of farms in the United States decreased by more than two million.

Farm numbers in the four full district states fell from 385,000 to 289,000 or 25 percent, since 1940; each of the states experienced roughly the same percentage decline in farm numbers. The changes in farm size in the district states were paced by Montana, where the average acreage per farm almost doubled during the past 20 years. Per farm acreages advanced nearly 50 percent in the Dakotas and over 25 percent in Minnesota since 1940.

The changes in farm size can better be seen by classifying farms by numbers of acres. Although the proportion of farms with less than 100 acres has steadily fallen, almost half of the farms in the United States are still in that classification. As shown in Chart 4, there has been a constant shift of farms into larger acreage classifications in the district as well as the nation. Since 1940, the proportion of farms in the 1,000 acre and larger group increased by 66 percent in Montana, 85 percent in North Dakota, and 147 percent in South Dakota. In Minnesota the proportion of farms in the 1,000 acres and over group accounts for a very minor portion of the total.

The average size of the farm business in terms of dollar sales has been expanding along with the increases noted in the acreage per unit. This increased sales volume per farm unit occurred despite a 7 percent drop in the general level of farm product prices during the 10 year period. Farms

TABLE 2—COMMERCIAL FARMS BY FARM PRODUCTS SALES VOLUME

	1950	1954	1959
Number of commercial farms[1]			
United States	3,706,000	3,328,000	2,566,000
Ninth district	311,000	294,000	245,000
		percent of farms	
Sales of $10,000 or more			
United States	13.1	17.5	32.8
Ninth district	16.7	19.4	32.3
Sales of $5,000 to $9,999			
United States	19.4	21.3	27.0
Ninth district	33.1	32.0	35.1
Sales of less than $5,000			
United States	67.5	61.2	40.2
Ninth district	50.2	48.6	32.6

[1]In general, in 1959 all farms with a value of sales of $2,500* or more were classified as commercial. Other farms with sales of $50 to $2,500 were included as commercial if the operator was under 65 years of age, if he did not work off the farm 100 days or more, and if nonfarm income was less than the value of farm products sold.

*In 1950 and 1954 this minimum was $1,200.

with total farm sales of less than $5,000 decreased from 68 percent to 40 percent of total commercial farms in the United States between 1950 and 1959. Numbers of farms in the United States with farm product sales of $10,000 or more increased as a proportion of total commercial farm numbers by 150 percent during the period since 1950. District farms in the large sales category accounted for 32 percent of all commercial farms in 1959, compared with 17 percent 10 years earlier.

Summary

During the past two decades, farm output and the productivity of the nation's farmers have expanded more rapidly than ever before for such an extended period of time. The pressure of war and increased demands for food in the early stages of the period initiated the productivity expansion. Other changes that gave added impetus to the increase in productivity were: a rapidly diminishing farm labor force combined with a shift to labor-saving techniques; and new technologies in animal and plant sciences that expanded output per crop acre and per animal unit.

These developments have caused the farm input mix to change considerably. Labor has been replaced with larger amounts of capital. Farmers are making greater use of commercial feeds, hybrid seed grain and commercial fertilizer; farmers are purchasing a larger portion of their production needs.

Today labor and capital in agriculture continue to be less than fully employed on many farms; returns to resource investment on a large number of farms are amazingly low. In spite of current price-cost ratios, expansion of existing farm units is remarkably profitable. In the Ninth district, as well as in the entire country, there is evidence of a further need for farm expansion. This is particularly true considering the large number of farms with small acreages and incomes. There can be little doubt that there will be more absorption of the small units by the larger. Thus, the changes witnessed during the past 20 years may be only a preview of the productive capacity that agriculture will be able to achieve in the future.

—Arvid C. Knudtson

District markets draw glass plants

Prompted by a ready market, estimated at nearly $15 million a year in Minnesota alone, and by growing freight costs from older factories over 400 miles distant, a glass container industry has taken root in the Twin Cities area.

One locally-owned plant is already in production. Two others, typical of the large company "satellite plants" which have characterized the industry in post-war years, are under construction. Together the three will have a daily capacity of over 700 tons of glass jars and bottles, and when operating at capacity plan to employ over 500 persons.

Glass container factories in this country first grew up near the original markets on the east coast. The American colonies' first factory, in fact, was a glass plant at Jamestown, Virginia; a consignment of its products sailed with the first export cargo from the colonies in 1609.

Early plants were also established in Illinois

and Indiana, and these remained closest to district markets until the recent local growth spurt. These plants were located close to supplies of fuel, labor, and raw materials, chiefly silica sand. The industry remained relatively concentrated until 10 or 15 years ago. Then the rising cost of labor and transportation, the spread of markets and the increasing use of gas pipelines began to negate the advantages of the early sites. Big national firms started building branches in metropolitan areas with large markets and nearby supplies of high-quality sand.

Area has materials, markets

Proximity to sand is a big attraction for glass plants since silica comprises 60 to 80 percent of their finished product; one of the new factories will consume about 200 tons of sand daily when operating at capacity. And southeastern Minnesota meets this qualification admirably. Sections of its two sandstone formations contain some of the purest quartz-sand in the nation. The supply they provide is, for all practical purposes, inexhaustible. Most of the sand used by the plants will probably come from deposits with a 99.6 percent silica content, located south of the Twin Cities near Ottawa, Minnesota.

The new firms will need two major raw materials in addition to sand. Lime will probably be imported from Ohio, and alkalis from Michigan, Ohio and Wyoming.

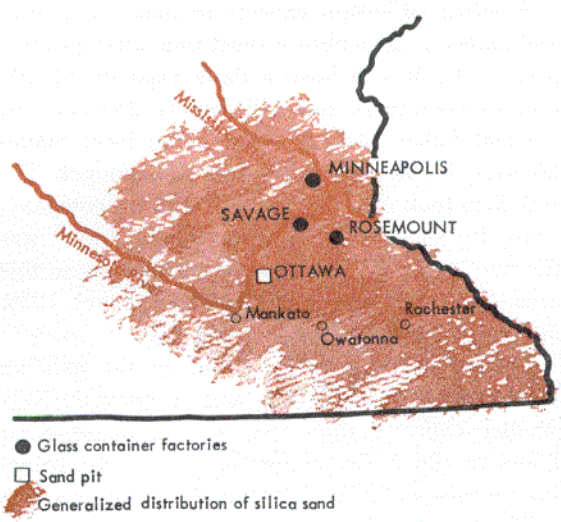
The area around the new plants also meets the market qualifications. A 1955 study by Northern States Power Company defined the total market for locally-produced containers (parts of Upper Michigan and Wisconsin, northern Iowa, Nebraska and Wyoming, eastern Montana and all of the Dakotas and Minnesota) at $25 million. The largest single chunk of this—$8,600,000—comes from the Minneapolis-St. Paul area.

Locally-produced glass will package such varied products as home permanents and peanut butter. In the local market, producers of cosmetics and toiletries are the biggest buyers. In 1955 they used 867,500 gross of glass containers worth over $3 million. Producers of all beverages bought 512,500 gross for $2.5 million, followed by food packers with 399,000 gross worth $1.7 million. Medicinal and health supplies were next, then other chemicals.

In the state as a whole, food packers are boosted to second place, having used nearly a million gross of containers with a value of $4.2 million in 1955. Cosmetics and toiletries were still in first place with an estimated 1.4 million gross of containers worth $5 million. A substantial volume of beverages is also bottled outside the Twin Cities, helping bring the total state market to an estimated $15 million. The market for each of the plants will vary, of course, with the type of glass it produces.

The new factories

Of the Twin Cities firms, the two satellite plants will have the larger output, at least initially. Brockway Glass Company, a Pennsylvania-based firm rated fourth among national producers of glass containers, and American-Wheaton Glass Corpora-



Monthly personal income estimates available for district states

Estimates of monthly personal income, until now available only for Minnesota, have been extended to include Montana, North Dakota, and South Dakota. Like the Minnesota figures, the current estimates will appear regularly in the Business section of the Bank's "Economic Indicators," which can be obtained upon request from the Research Department, Federal Reserve Bank of Minneapolis.

tion, a joint venture of American Can and New Jersey-based Wheaton Glass Company, both broke ground for their new plants last summer. American-Wheaton's 350,000-square-foot plant, which is being built on a 37-acre site near Shakopee for about $5 million, is scheduled to go into operation this spring. Brockway's $5,750,000 plant, with 242,000 square feet and a 105-acre site north of Rosemount, is expected to start production of flint (clear) containers by May 1. It will eventually have a daily capacity of 200 to 250 tons of jars and bottles, and will employ 200; this will be after the eventual addition of a second furnace for amber containers.

American-Wheaton expects to make both flint and amber glass within a short time after production starts. It will have a daily capacity of 300 tons of containers and will employ 250 persons.

Great Lakes Glass Company, the local manufacturer, began production late last summer. The new firm took over the assets of a failed company, Glass Products, Inc., of Minneapolis, which was the first to try the glass container business in this area. The early attempt began in January 1959, and closed within the year.

Great Lakes began operation in the existing plant with 60 employees and a comparatively smaller capacity than the satellite factories. It hopes to add a second furnace eventually, bringing capacity to 200 to 250 tons of containers a day.

The pioneer of area glassmakers, and the only other district company to produce it, turned out flat glass rather than containers. St. Paul's Ford Motor plant produced flat glass from 1926 to 1959, interrupted only by the Depression and the war. At one time Ford made 60,000 square feet a day, accounting for some 35 percent of all glass used in Ford products. Unlike the new companies, which buy sand and transport it up to 70 miles, Ford took its sand from its own property, just beneath the plant floor. Some 30 tons of silica sand were extracted in an eight-hour day. Glass made from the sand was cut in St. Paul, then shipped to Michigan where it was laminated into safety glass. The plant has not made glass since late 1959.

Status and growth of the industry

There are now 105 glass container factories, owned by 47 manufacturers, in the United States. Pennsylvania, New Jersey and West Virginia have the heaviest concentration of them, as well as the greatest number of large-sized ones. Relatively few eastern-produced glass containers have reached the Ninth district in recent years, however. Most have come from northern Illinois and Indiana, which have the closest glass container plants to the east of the district; a smaller amount has come from Oklahoma, which with Missouri has the closest plant to the south. The only glass container plants to the west are in California and Washington.

The volume of imported containers was still relatively small ($500,000 value) in 1959, but had increased 54 percent over 1958 and 288 percent over 1953. Since the St. Lawrence Seaway

extends directly into the Ninth district market, the possibility of foreign competition cannot be precluded. Current exports of U. S. glass container manufacturers are now about 2 to 3 percent of total industry shipments.

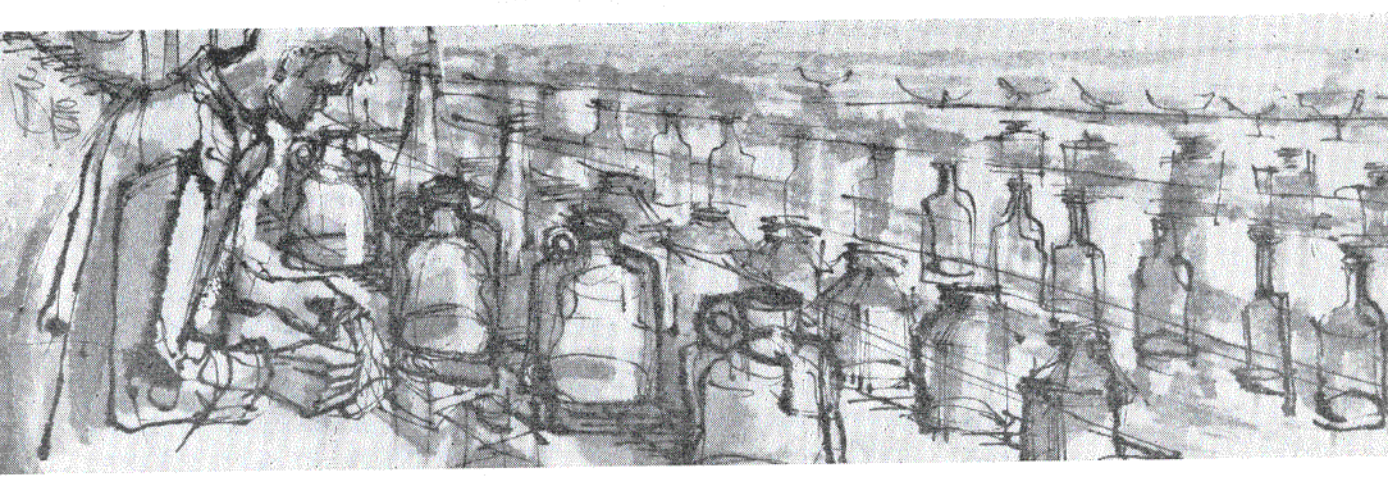
The potential market for Twin Cities plants is expected to include a fairly broad geographic area, from Upper Michigan and Wisconsin to Montana, because few of the glass container factories already operating are as convenient to the area. Because transportation costs add significantly to the final price, nearness to markets is an important advantage.

Since the advent of the first automatic glass forming machine around the turn of the century, the glass container industry has used mass production to serve mass markets. Now automatic machines with 10,000 parts can produce containers at the rate of 250 a minute. About 18 billion new glass containers—110 per person—are now produced annually in the United States. Including returned and reused bottles, some 75.5 billion glass containers, or 428 per person, went to market in 1959.

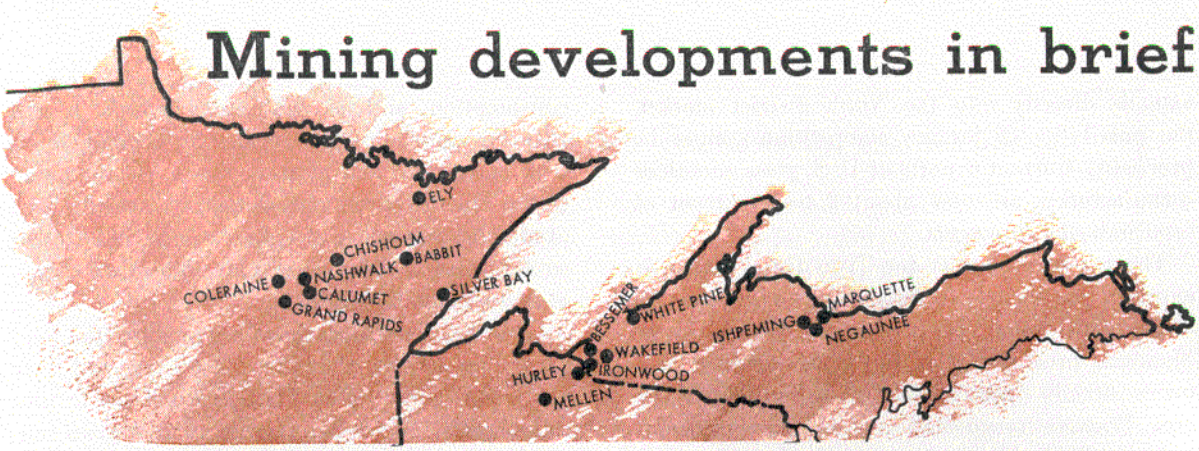
The future growth of the glass container industry will depend in part on the continued increase in the kinds and amounts of goods packaged for consumption, and on population growth. It will also depend on how glass fares in its competition with metal cans and plastics, which vie for many of the same products. It has held its own through producing containers of lighter weight and greater strength and by increasing the emphasis on cheaper non-returnable bottles.

Glass containers now have 8 percent of the total packaging market, after first place paper and fiber and second place metal. Plastics, wood and textiles follow glass. The dollar volume of new glass containers reached $902 million in 1959, and the total number produced reached 152.5 million gross—over three times the figure for 20 years before.

This growth has been less spectacular in recent years than that of the packaging industry as a whole, partly because glass has been in the container business for a longer time than many materials such as plastics, and several of the fibers and alloys. In spite of the advantage of such newcomers, however, glass' versatility and special qualities—transparency, strength, chemical inertness, the high precision with which it can be controlled and the great variety of colors, sizes and shapes to which it can be turned—should assure it a stable position in the container markets of the future.



Mining developments in brief



The Ninth district's range country has responded to the current recessionary period with shutdowns and cutbacks in some mining operations while, at the same time, it has experienced the opening and expansion of other mining facilities as part of a longer-term investment trend. The following paragraphs, which sample some of the recent developments in the Minnesota, Wisconsin and Upper Michigan mining areas, indicate the nature of both these movements.

Lower quality ores, which no longer meet the needs of modern blast furnaces, difficulties in mining operations, the increasing availability of higher quality beneficiated ores, and the present large stockpiles of ore are factors which have led to suspensions and shutdowns, especially in older mines. At **Ishpeming,** on Michigan's Marquette iron range, operations will cease permanently this summer at Inland Steel's Morris mine, and have been suspended at Cleveland Cliffs' Mather A mine. Closing of the 52-year-old Morris mine, which supplied about 5 percent of Inland Steel's iron ore needs, will affect 190 employees. Suspension of operations at the 3,500-foot deep Mather A mine together with reductions at other Cleveland Cliffs mines in **Ishpeming** and **Negaunee** have decreased the company's work force by 480.

Pickands Mather released 500 workers at the end of January, when operations were reduced at five mines in **Wakefield, Bessemer,** and **Ironwood,** Michigan, and **Hurley,** Wisconsin. In March the company suspended operations at the Gogebic range Cary mine near **Hurley** for three to four months. Operations were suspended indefinitely at the Gogebic range Peterson mine at **Bessemer** and the Menominee range Buck mine at **Iron River,** Michigan. Two independent mines near **Ironwood,** employers of 900, announced no reductions, however.

On the Vermillion range, one of the two underground mines at **Ely,** Minnesota, closed indefinitely last month. The mine, which opened in 1892 and has shipped a total of 21 million tons of ore, employed 290 men. **Ely's** Pioneer mine, another old-timer, still employs about 450.

At **Ely,** a new washing plant is being built by Oliver Mining to improve the marketability of ore from the Pioneer mine. The new facility is expected to be completed this year. It will be the first year-round operation of its kind in northern Minnesota. At **Chisholm,** on the Mesabi, Oliver Mining began stripping overburden to form an entirely new open pit mine.

Minnesota's largest plant for concentrating low-grade iron ores other than taconite, U. S. Steel's Oliver Mining division Trout Lake plant on the Mesabi range near **Coleraine,** will not open this year. The pilot semi-taconite portion will continue to be operated, however, and some of the workers will be absorbed by other company operations in the Coleraine area. The plant's first unit was opened in 1907, making it the oldest in the state to beneficiate ores. Compared to taconite operations, which upgrade ores with about 30 percent iron content to over 60 percent, Trout Lake upgraded from 40 or 45 percent to 53.9 percent.

In 1959, the state legislature changed the tax law affecting semi-taconite by replacing the ad valorem tax with a production tax. Two pilot semi-taconite plants have since been constructed. A similar change in tax laws affecting taconite preceded the early growth spurt in taconite processing. (Semi-taconite, unlike the taconite now being used, is non-magnetic. It is also softer and less cohesive, and cannot be made useful by as simple methods of beneficiation.)

One of the semi-taconite pilot plants, built by M. A. Hanna Company on the Mesabi range near **Nashwauk** began testing the production of high grade ore concentrate from low grade non-magnetic ore in February. The $2 million plant has a capacity to produce 200 tons of concentrate daily from 400 tons of crude ore.

Reserve Mining began a $120 million expansion program last year on taconite facilities at **Silver Bay** and **Babbitt.** Still under construction, the project is scheduled for completion in 1963, by which time it will have increased the company's taconite producing capacity by 50 percent, and its work force to about 3,000.

A concentrator designed to treat previously unusable stockpiled material from Jones & Laughlin Steel's Hill Annex mine on the Mesabi near **Calumet,** Minnesota, will begin operations about June 1. The new concentrator, whose operations center on the use of a huge drum to reduce iron ore to sizes at which waste materials can be separated, will have a capacity of 500,000 tons of concentrates a year.

In Wisconsin, Oliver Mining has conducted extensive studies of taconite near **Mellen,** and on the basis of them decided to take about 400 tons of low-grade iron ore from four different sites in the area, for concentration at the company's research center in Duluth. The pits are in Wisconsin's Penokee range, north of an area which has been extensively test drilled by other firms.

In Michigan, construction began last year on a non-magnetic low-grade iron ore project at the Republic mine, near **Ishpeming;** a new pellet plant of the same type was completed at the nearby Humboldt mine in 1960. Both mines are owned by Cleveland Cliffs, which also announced in February that it and an affiliate will open the state's first low-grade magnetic mine near **Negaunee.** Crude ore, containing 30 percent iron, will be beneficiated into a concentrate of 65 per cent iron when the plant is completed in 1963. It will have an annual capacity of 1,000,000 tons.

Upper Michigan's copper mining has also experienced contractions and expansions. The Champion copper mine southwest of **Houghton,** which employed 150, was closed indefinitely, but operations at **White Pine** have been expanded. White Pine Copper Company started sinking a shaft on a newly discovered copper orebody in the vicinity of the present producing mine in January.

Current conditions . . .

The district's economic indicators continued to evidence contradictory movements with fewer people working and larger unemployment than in early 1960 but with most other measures of business showing modest improvement. It can be said, however, that district employment has not declined as much percentagewise from a year ago as has employment in the nation. Neither have the unemployment figures increased as much. It is a fact, too, that other important measures of district activity, including total personal income, cash farm income, bank debits and demand deposits, have continued in recent months to outpace comparable figures for the country as a whole. Of interest, too, is the increase in the volume of permits reported in the district's building permit series, both in number and value—this after more than a year of decline.

If, from an overall viewpoint, the economy of the Ninth district in recent months has done as well or better than the United States as a whole, the credit must be given primarily to the performance of agriculture—the district's most important single industry. The record here is impressive. In January last year, the district's cash farm income was estimated at $283 million. This January the figure was $334 million, an 18 percent increase. Admittedly, the year 1959 was a poor crop year and incomes, as a result, were depressed. 1960 was a near record crop year and incomes expanded. This fact makes the current percentage increase look particularly strong. Nevertheless, farm incomes at near record levels plus modest increases in most other segments of the district's personal income, have tended to cushion the effects of recession on the area's economy. In February, for example, preliminary estimates indicate total personal income in Minnesota was 5.3 percent above February of 1960. For the United States, the increase was only 2.6 percent.

An overall view of the district's economic picture can and often does mask serious economic disturbances and problems in some of the district's subregions. This is true currently. Lumbering in western Montana has been in the doldrums for many months. Zinc and copper mining in Montana and iron ore mining activities in the northeastern parts of the district have been sharply curtailed due to the recession and lack of demand for these ores. Unemployment in these areas has been and is a problem. The recent visit of Arthur J. Goldberg, Secretary of Labor, to the depressed areas of northeastern Minnesota to study unemployment conditions is indicative of the serious attention being given to problems which exist in these areas.

Leveling off of the nation's industrial production index in February after a decline of seven months may indicate that the bottom of the reces-

sion is here or at least very near. A business recovery, when it occurs, may be expected to increase the demand for the products of the district's forests and mines with resultant employment improvement. Other evidence that the recession may be bottoming out includes a slowing in the rate of inventory liquidation, particularly at the manufacturing level, some increase in retail sales, higher government spending for goods and services, and increasing indications of optimistic expectations. Of twelve selected "leading indicators" among economic series for the month of January, about half leveled off or continued down while the other half showed a modest upturn.

The following selected topics describe particular aspects of the district's current economic scene:

FARMLAND VALUES SHOW LITTLE CHANGE

Farm real estate values showed little change throughout the nation during the four months from July 1960 to November 1960, the most recent period for which the U. S. Department of Agriculture has released estimates. Values changed 1 percent or less in more than half of the states during the period. Decreases of 2 to 5 percent were noted in nine states, principally in the central portion of the country; the 5 percent drop was noted in Iowa. Over-all, the national index of farmland values remained at 172 (1947-49=100) in November 1960, unchanged from July, and only one index point or .6 percent above the November 1959 level.

In most states of the Ninth district, farmland values increased slightly from July 1960 to November 1960. Four states, Wisconsin, Minnesota, North Dakota and South Dakota, indicated a 1 percent increase. The only exception was Montana, where values fell 2 percent during the same period. During the year from November 1959 to November 1960, Minnesota farmland values fell 3 percent. Increases of 3 percent were indicated in North Dakota; of 2 percent in Montana; and of 2 percent in South Dakota. No change in value was reported in Wisconsin during the year.

The preliminary figures from the Census of Agriculture indicate that farmland values in the United States have increased 42 percent between 1954 and 1959. Montana had the greatest increase —52 percent—of any of the states in the district. Increases in other district states were as follows: Minnesota, 47 percent; North Dakota, 46 percent; South Dakota, 34 percent; and Wisconsin, 31 percent.

The USDA recently released a survey of opinions of farm real estate dealers and nondealer reporters regarding probable future land price trends; this survey, made last October, was one of a continuing series. It indicated less than 10 percent of the reporters expected any advance in land values in the following six months. A year earlier, in October 1959, a fifth of the reporters indicated they expected land values to rise. The shift in opinions was most pronounced in the eastern corn belt, where nearly half the reporters last fall thought prices would decline; a year earlier only 13 percent of the reporters in that area indicated an expectation of a land price decline.

The reporters, both real estate dealers and nondealers, indicated a weaker market situation in the fall of 1960 than was experienced a year earlier. They reported generally lower rates of farmland transfers in most regions, less demand for land and increased resistance by prospective buyers to asking prices, and an increased number of farms listed for sale.

Interest rates on new farm mortgage loans remained almost uniformly at 6 percent for all major classes of lenders in 1960, according to the USDA reports. Six of the twelve Federal Land Banks reduced their rates to 5½ percent effective January 1961, in response to a reduction in rates paid on bonds sold by the Federal Land Banks in the central money markets.

Although the supply of mortgage funds eased during 1960, the dollar volume of new loans dropped below 1959 levels; life insurance companies experienced a 9 percent drop in dollar volume during the first nine months of 1960 compared with 1959. The Federal Land Banks noted a 17 percent decrease during the same period.

NET PER FARM INCOME UP

According to preliminary U. S. Department of Agriculture estimates, net realized income per farm in 1960 advanced from 1959 levels by 12 percent in Minnesota, 3 percent in North Dakota and 10 percent in South Dakota. Montana experienced a drop of 12 percent between 1959 and 1960.

Net realized income is conceptually the essential equivalent of "spendable income" for the nonfarm population; that is, net realized income represents the residual of money and nonmoney incomes remaining after production expenses (including depreciation) have been deducted. Net realized income does not take account of changes in the values of inventories held on farms.

NET REALIZED INCOME PER FARM

	1955-1959	1958	1959	1960	% change 1959 to 1960
Minnesota	$2,884	$3,415	$2,655	$2,980	+12
North Dakota	3,493	4,224	3,371	3,476	+ 3
South Dakota	3,360	4,661	3,833	4,211	+10
Montana	5,277	6,241	4,854	4,250	—12

The 12 percent advance noted between 1959 and 1960 in Minnesota was attributed to a modest rise in total cash receipts. Cash receipts from hogs, dairy, poultry, corn, soybeans and flaxseed advanced, while receipts from cattle, wheat, oats and barley declined. Production expenses in 1960 were estimated to be up only slightly over 1959 in Minnesota.

North Dakota experienced a slight rise in cash receipts from 1959 to 1960, according to the USDA estimates. The gains were noted in hogs, eggs, wheat, potatoes and oats, while receipts from cattle, dairy products, barley and flaxseed declined. A slight rise in production expenses was also noted in North Dakota.

The total registered in South Dakota in 1960 was a little above 1959 because increases in receipts from hogs, eggs, wool, wheat and oats more than offset declines in receipts from cattle, dairy products, corn and flaxseed. South Dakota likewise experienced a slight advance in production expenses.

The estimated 12 percent drop in per farm net realized income in Montana was explained by substantial declines in receipts from cattle and wheat, and slight declines in receipts from dairy products and barley. The net result was a 6 percent drop in Montana's cash receipts in 1960 compared with 1959. Although production expenses declined, the reduction was small compared with the drop in cash receipts, with the result that net realized income per farm fell 12 percent.

GAIN IN DISTRICT DEPOSITS

Reflecting larger than usual deposit gains in the last half of 1960 and a smaller than usual decline so far in 1961, the total deposits of district member banks were 8 percent larger at the end of February than they were a year earlier. At the city banks, total deposits were up 12 percent with demand and time up 13 and 10 percent respectively. At the country banks, demand, time and total deposits were all up by 5 percent. Total district deposit gains of 12 percent at city banks and 5 percent at country banks compared with national gains of 8.5 percent for city banks and 5 percent for country banks. In the week ended March 1, district member bank demand deposits averaged the same as four weeks earlier, while in the comparable 1960 period a decline of 3 percent was registered.

Total loans of district member banks grew by

the same rate that total deposits grew in the year ended March 1—8 percent. Hence, the ratio of loans to deposits for district member banks on March 1 was the same as a year earlier—51.7 percent. But among the banks, loan growth was faster than deposit growth at country banks and slower at city banks. At 57.5 percent the city bank loan-deposit ratio on March 1 compared with 60.8 percent a year earlier, while the country bank ratio of 48.8 percent compared with 47.7 percent a year earlier.

In the first two months of 1960, loans at the city banks rose $2 million in contrast to a decline of $12 million last year in January and February. Country bank loans rose $9 million in the period this year against a $4 million increase a year earlier.

Daily average borrowings at the Federal Reserve Bank of Minneapolis in February were lower than in many years at $1,659,000. In the first half of March the average dropped to $1,030,000, primarily reflecting the repayment of borrowing by country banks. No district reserve city bank was in debt to the Federal Reserve between mid-February and mid-March.

PICKUP NOTED IN RETAIL SALES

After a marked reduction in sales during January and early February, an improvement occurred during the latter half of February and first half of March. The turndown in economic activity since about May 1960, which resulted in a slower rate of growth in disposable personal income and an uncertainty over the economic outlook, depressed sales; so did the inclement weather after the first of the year. In the nation, seasonally adjusted retail sales in January declined to the lowest point in thirteen months, according to the U. S. Department of Commerce report.

Disposable personal income in the nation has risen only 1 percent since the second quarter of 1960 and real per capita income has declined during the current recessionary period. On the other hand, in Minnesota, total personal income, on a seasonally adjusted annual rate, has continued to rise during the current recession. All except the northeastern part of the state, which is dependent on iron ore mining, participated in this increase. In most regions of the Ninth district, a rise in consumer purchasing power has been reflected in retail sales.

Consumer intentions to buy large ticket items may now be influenced less by the unfavorable economic outlook than last year. The quarterly survey of consumer buying intentions, conducted for the Board of Governors of the Federal Reserve System by the Bureau of the Census, shows that consumer expectations regarding future income prospects remained about the same last January as in the two surveys conducted in the latter half of 1960. Plans to buy both new and used automobiles within the next six months were at about the same level as a year earlier, while in the surveys conducted in July and October 1960, such plans were below year-ago levels. However, the proportion of consumers reporting plans to buy houses and major household applications was still lower than a year ago.

Department store sales by Federal Reserve district reveal the effect of the severe winter weather. In January, seasonally adjusted sales in the Great Lakes and eastern sections of the United States were off as much as 5 percent from December. Sales in several other districts were off only about 1 percent. In the Ninth district, January sales were off about 3 percent, indicating that weather did depress sales in this region but not as much as in others.

Automobile dealers reported lower sales in the areas hit by blizzards than did those in other regions. In the Ninth district, registration figures available for some states indicate that January sales were near the year-ago volume. Montana registrations were up 5 percent. In North Dakota they were about equal to those of a year ago.

While in the nation January retail sales, seasonally adjusted, were 2 percent below last December

and January 1960, February sales were up 1 percent from January. Department store sales and new automobile sales continued to improve through the first half of March. The weekly index of department store sales, adjusted for the season and the early Easter date, rose by 1 percent in the week ending March 4, and was up 15 percent from the first week in February. In the week ending March 11, it rose by another 4 percent. Sales of new domestic automobiles in the first third of March were up 19 percent on a daily average basis from a month earlier. However, there generally is a rise in sales at this time of year.

In the Ninth district, March blizzards depressed both department store and automobile sales. In the week ending March 4, weekly department store sales in Minneapolis, St. Paul, Duluth and Superior were up only 6 percent from the low volume of a year ago, while for the nation they were up 26 percent. In the week ending March 11, sales in the four district cities were down 1 percent, and in the nation up 9 percent. In the Twin Cities metropolitan area, automobile registrations in the first 11 business days in March were off 35 percent from the same period of a year ago.

Sales lost during the first six weeks of this year were not permanently lost. The period of inclement weather resulted in an accumulation of deferred purchases which have been made as the weather improved.