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Miscellaneous Publication No. 870 UNITED STATES DEPARTMENT OF AGRICULTURE

# foreword

CIVILIZATION reaches upward from the shoulders of agriculture. It began when one man consistently could grow more food and fiber than he needed himself. Thus, he helped to feed and clothe another who could become a craftsman or perform other services.

Ours was an agrarian nation when George Washington said: "... with reference either to individual or national welfare agriculture is of primary importance."

Ours was an industrial nation when Theodore Roosevelt declared:

"The man who actually tills the soil is the man who is the foundation of our whole structure . . ."

Today, when one American farm worker feeds 26 people, and civilization is reaching for the planets, President Kennedy has said:

"The interrelation between prosperity on the farm and economic health of the city has never been more apparent."

In no other country, and at no other time in our history, has agriculture provided so well for so many people as it does in the United States today. Agriculture is as vital as ever to the economy, well-being, and strength of the United States.

American agriculture also helps to undergird the free world. The matchless productivity of American farmland and efficiency of the American farmer are powerful forces for peace.

The total investment in American agriculture is nearly \$200 billion—three-fifths of the market value of all corporation stocks on the New York Stock Exchange, or three-fourths of the value of current assets of all corporations in the United States. Some of the \$200 billion investment in agriculture is owned by urban people who have inherited or bought farm property.

Agriculture is our biggest industry. It employs 7.1 million workers.

Agriculture creates millions of nonfarm jobs. It takes about 6 million people to supply farmers and another 10 million to store, transport, process, and merchandise the products of American agriculture.



# the food we eat

THE SUPERMARKET. the corner grocery, the restaurant. and our own kitchens usually are hundreds—sometimes thousands—of miles from the sources of our great variety of abundant, wholesome food.

Many foods reach our kitchens in new and appealing forms—as "ready mixes." as concentrated and dehydrated products. and as "heat-and-serve" dishes.

We have grown from a nation in which 1 of every 4 workers had to produce food, to a nation in which 1 farmer is efficiently producing food for 26. Thus the technological explosion in agriculture has freed most of us from the labor of earning our daily bread by tilling the soil.

To get food from the 1 producer to the 26 consumers (including the farmer), we have created a vast. efficient system of marketing. storing, transporting, processing, wholesaling, and retailing.

Ours is a very high level of living. Our children are taller. healthier than we were at the same age. They have a longer life expectancy. One important reason is that modern farm production and marketing give us a basic foundation for good health—nutritious. wholesome food in adequate amounts for a balanced diet.

But these advances have placed most of us so far from the land from the farm and the ranch—that we often take good eating for granted.

Let's examine the facts about this modern-day miracle of abundant good food when and where we want it.

## We're eating better

WE'RE EATING more beef and pork, more poultry, and more dairy products than we did 25 years ago.

In 1960. as compared with the average for 1935-39, each of us had—

161 pounds of meat instead of 127:

35 pounds of poultry instead of 15.6; and

393 pounds of dairy products instead of 374.

In 1958-60, we got 67 percent of our protein from animal products. In 1909-13, we got 52 percent from animal products and 48 percent from cereal products, dry beans, peas, nuts, and other foods. Animal proteins are more costly foods. The reason is obvious: The animal is a "processor," converting grain and forage into meat, milk, or eggs. The most efficient converter of grain and other feed into flesh—the broiler chick—requires 2½ pounds of feed to produce 1 pound of gain.

Millions of people in some nations can't afford a diet high in animal proteins; they eat the cereals instead of feeding them to animals. Cereals constitute two-thirds of the diet of the peoples of Japan and India. Red meat and dairy products represent about 2 percent of the Japanese diet and about 4 percent of the Indian diet.

#### We buy more processed foods

WHEN WE buy prepared or partly prepared food, we pay for factory, labor, management, and other costs, in addition to prices the farmer received for his crops.
We are, of course, buying convenience—freedom

from kitchen chores. We also are buying food with less waste, that needs less trimming, sorting, or washing.

Three "ready-to-serve" meals costing \$6.70 for a family of four for 1 day could be prepared in the home kitchen for \$4.90, or \$1.80 less. But the "ready-to-serve" meals cost the homemaker only 1<sup>1</sup>/<sub>2</sub> hours of her time, compared with about 5<sup>1</sup>/<sub>2</sub> hours for the three home-cooked meals.

The food cost saving of \$1.80 in the three home-cooked meals represents an hourly wage of about 50¢ for the 4 extra hours of work in preparing them.

Those are the two extremes. Most families use a combination of foods—unprepared, partly prepared, and ready to heat and serve.

We now pay about \$7½ billion a year more than we did in 1940 for the convenience of having some of the work of food preparation transferred from the kitchen to the factory or restaurant, and for more transportation, packaging and processing.

#### We pay for packages and containers

OF EVERY \$20 we spend for groceries, we pay from \$1.50 to \$2 for the packaging that helps to keep the food in good condition and attracts our attention.

Packaging costs vary greatly. Sometimes the package may cost as much as the food itself. The trend is toward smaller packages to meet the food needs for one meal, and thus reduce waste.



### We have seasonal foods the year around



WE EXPECT and enjoy fresh vegetables and fruits all year.

Modern refrigeration and transportation ended our seasonal eating habits and provided balanced diets the year around.

The cost of shipping an average-size head of lettuce from California to Boston adds about 5 cents to its selling price. Growers received an average of slightly more than 6 cents a head for lettuce in 1960.

## Even so, we spend less of our incomes for food

MOST PEOPLE of the world spend half their disposable income for food; we spend about a fifth—20 percent in 1960. We have more income left for the products of industry, for housing, for medical care, education, and recreation.

If we had bought in 1960 the same kinds and quantities of food we ate in 1935–39, we would have spent only 14 percent of our 1960 income.

Our incomes have gone up more than the price of food. Greater buying power enables us to take advantage of the abundant food, including the animal products, provided by an efficient, modern agriculture.

#### Food's a bargain

FOOD COSTS have risen less since 1947–49 than most other consumer items in the cost-of-living index.

For all items other than food, the increase to mid-1961 was 31 percent. The cost of transportation increased 46.6 percent; housing, 32.2 percent; rent, 43.4 percent; medical care. 60.4 percent.

But for all food (including that served in restaurants), the increase was 20.7 percent.

The "market basket" of *farm-grown* food costs only 12 percent more than it did in 1947–49. But the farmer receives uone of the increase. In fact, he gets 12 percent less for this food. Marketing costs have risen 36 percent, more than offsetting the decrease in what the farmer gets.

### We work fewer hours for it



ONE HOUR'S work in a factory buys more food today than it did 20 or 30 years ago. Pay for one hour's factory labor would buy:

Round steak:

2.2 pounds in 1960; 1.8 pounds in 1939; 1.2 in 1929;

Bacon:

3.5 pounds in 1960; 2 pounds in 1939; 1.3 in 1929;

Milk:

17.6 pints in 1960; 10.4 pints in 1939; 7.8 in 1929; or

Oranges:

3.1 dozen in 1960; 2.2 dozen in 1939; 1.3 in 1929.

## There's more than food in the grocery basket

WHEN WE BUY groceries in today's supermarket, we usually buy household supplies, cigarettes, toilet articles, and other nonfood items. We may even buy clothing. A study by home economists at Purdue University showed that nonfoods made up an average of almost 20 percent of consumer's purchases in markets in Lafayette and Indianapolis, Ind.



### The farmer receives 39 cents of our food dollar

THE FARMER'S SHARE of our food dollar in 1960 was 39 cents. It was 40 cents in 1940, and 53 cents in the war year 1945.

As a general rule, the farmer's share of our food dollar declines as the amount of food processing increases.

The wheat grower's share of our dollar spent for white flour is 33 cents. When the flour is mixed with other ingredients and baked as white bread, the farmer's share for his wheat drops to 11 cents.

The corn grower receives 18 cents of the dollar spent for cornmeal, and 9 cents of the dollar for cornflakes.

When we buy fresh green beans, the farmer receives 43 cents of our dollar. When we buy frozen green beans, he gets 19 cents.

The farmer's share of our dollar spent for animal products includes: Choice grade beef, 60 cents; choice grade lamb, 51 cents; retail pork cuts, 52 cents; fluid milk. 43 cents: ready-to-cook frying chickens, 55 cents: eggs. 67 cents.

Oranges are one of the exceptions to the general rule of the farmer's share dropping with increased processing. The grove owner receives 36 cents of the dollar we spend for fresh oranges, and 40 cents when we buy frozen orange juice concentrate.

## And only 2.8 cents for a loaf of bread

THE WHEAT used in baking a 20-cent loaf of bread costs 2.3 cents.

Other farm products used in the bread add 0.5 cent to its cost. In 1960, when the retail price of a 1-pound loaf of white bread averaged 20.3 cents:

The farmer received 2.3 cents for his wheat and 0.5 cent for the milk, shortening, and other farm products in the bread; the miller received 0.7 cent: the baker-wholesaler 12 cents; and the retailer 3.4 cents. The other 1.4 cents went for transportation. storage. handling. and other processing.

## He has less income than most of us

THE AVERAGE income per capita of the farm population in 1960 was \$986—\$657 from farming plus \$329 from nonfarm sources.

The per capita income of the nonfarm population was \$2,282.

Agricultural workers received less than 82 cents an hour in 1960. Income for 1 hour of factory work averaged \$2.29. Hourly earnings of food marketing employees (those in food processing, wholesale trade. and retail food stores) averaged \$2.14.



## Even though he's more efficient

ONE HOUR of farm labor produces 4 times as much food and other crops as it did in 1919–21.

Crop production is 65 percent higher per acre. Output per breeding animal is 88 percent greater.

Productivity of the American farm worker is now growing three times as fast as the productivity of workers in industry. In the 1950's, output per man-hour in nonagricultural industry rose about 2 percent a year. In agriculture it rose 6<sup>1</sup>/<sub>2</sub> percent a year.

That's the farmer's record of efficiency, but he hasn't profited from it.

He has been caught in a price-cost squeeze.

Since 1947–49, prices the farmer receives for his crops and livestock have dropped 12 percent, while prices he pays have risen 20 percent.

Thus, while the farmer continued his production efficiency at an unmatched and unprecedented rate, his net income has gone down.

Comparing the averages for 1947-49 with those for 1957-60:

New Jersey egg producers raised their net production per farm 54 percent, while net farm income went down 68 percent.

Eastern Wisconsin dairy farmers raised production per farm 42 percent, but they earned 2 percent less.

Wheat, small grains, and livestock producers in the Northern Plains stepped up production per farm 16 percent. Yet their net income slipped 28 percent.

Hog and beef fattening producers in the Corn Belt raised production per farm 36 percent, while their net income dropped 28 percent.

### Where efficiency does pay-marketing

MARKETING efficiency, however, pays off.

The number of workers marketing food is 12 percent greater than in 1947–49. Their hourly earnings are up 77 percent. They are more efficient, too. The labor cost per pound and per can, or other unit, has risen only 37 percent.

This increased efficiency in marketing has slowed the rise in farm food costs. But the biggest reason for the fact that food has gone up less than most other consumer items is the farmer's efficiency, and the lower prices he receives.

An example is the broiler industry—highly efficient both on farm and in marketing.

Research developed a faster growing broiler and a better diet for it. This new type of bird, fed the improved diet, produces a 3-pound broiler in 9 weeks, as compared with a 1.6-pound broiler in 9 weeks 30 years ago.

Farmers improved production methods. Many specialized the year around in growing broilers. Processors used assembly-line methods. Cut-up chicken of a uniform high quality became a largevolume seller in supermarkets rather than a specialty item.

Between 1950 and 1960, when prices of most food products increased, the retail price of frying chickens dropped an average of 15.8 cents a pound. The farmer contributed 89 percent of this decline in retail price. He received 14.1 cents less for his broilers in 1960 than he did in 1950.

## Food is defense—and peace



AMERICAN farmers fed us and our allies during two world wars. They did it without drawing on the manpower needed by the armed forces or by the industries producing war material.

The ability of our farmers to produce food in abundance works for world peace. American food and American food production know-how are shared with the emerging nations of the world. Our wheat. for example, provides 5 *billion* additional loaves of bread a year for the people of India.

Surplus food from our farms. in addition to providing a food reserve. also helps to build up the national stockpile of strategic materials. Sixteen different surplus agricultural commodities have been exchanged for a large group of strategic materials—more than \$1 billion worth since 1954.

The National Food Plan. developed by the U.S. Department of Agriculture, is a vital part of the National Plan for Civil Defense and Defense Mobilization.

## Our efficiency is proof that our system works

IN RUSSIA. one agricultural worker produces for four or five people. More than 40 percent of the total labor force of the Soviet Union works in agriculture and forestry.

If our farmers were no more efficient than those of the Soviet Union. 20 to 25 million Americans who now work in manufacturing. construction, mining, the trades. transportation. and other nonfarm business would have to produce our food. clothing. and forest products.



In turn. our industrial workers have helped to increase agricultural efficiency with modern machinery, agricultural chemicals. and other supplies used for farm production.

### Marketing is a mammoth job

GETTING FOOD from farm to market is a mammoth job.

Fresh fruits and vegetables shipped each year into New York City would fill a train reaching from Texas to New York.

More fresh fruits and vegetables were shipped into New York City in 1960 from California (34,000 carlots) and from Florida (25.000 carlots) than from New York State (21.000 carlots). A carlot is used as a unit of measurement, whether produce arrives by train, truck, boat, or plane.

#### It offers us a variety of foods

It's BEEN SAID that a modern supermarket stocks food from each of the 50 States, and from Puerto Rico and the Virgin Islands.

How many States can you find represented in your own supermarket? To get an answer, you may have to check as many as 5,000 different food items—the number some supermarkets handle.

#### . . . wherever we live



In turn, we provide an important market for growers in other regions.

Some foods used daily throughout the country can be grown in only a few States—citrus fruit, for example. Others can be produced in all regions, although farmers, like industry, tend to specialize in

production that is to their best advantage. This regional specialization depends not only on climate, topography, and soil, but also on prices and transportation costs.

There's another important reason for this interdependence in food supply. A few States are so densely populated that they do not have enough land to grow enough food for their people.

The Northeastern region <sup>1</sup> is an example.

Farms in the 9 Northeastern States contain only six-tenths of an acre of crop and pasture land for each of the 44.7 million people living there, as compared with the national per capita average of 5.2 acres. People of the Northeast—

- Eat 27 percent of the Nation's meat, vegetables, melons, fruits, and nuts, but produce only 3 percent of the country's meat animals, 15 percent of the vegetables and melons, and 10 percent of the fruits and nuts.
- Consume 28 percent of the Nation's poultry, eggs, and dairy products, while producing 20 percent of the national supply of poultry and eggs and 21 percent of the dairy products.

Western, with 11<sup>1</sup>/<sub>3</sub> acres of crop and pasture land in farms per person plus considerable public land for grazing: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.



<sup>&</sup>lt;sup>1</sup> The regions:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

North Central, with 6½ acres of crop and pastureland in farms per person: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

Southern, with 4<sup>1</sup>/<sub>2</sub> acres of crop and pasture land in farms per person: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

That's why farmers of the 12 North Central States <sup>1</sup> consider the Northeast a vital market. The North Central States:

Produce 63 percent of the Nation's meat animals and consume only 33 percent.

Produce 35 percent of poultry and eggs and consume 30 percent. Produce 44 percent of the dairy products but consume 34 percent.

But the people in the North Central States look to other regions for much of their vegetables, melons, fruits and nuts.

The 16 Southern States <sup>1</sup> produce more poultry and eggs, and more fruits and nuts than their people consume. But they depend on other States for a part of their meat and dairy products. Production of vegetables and melons just about balances consumption.

Only the 11 Western States <sup>1</sup> can be considered almost self-sufficient. Their production of meat animals, poultry and eggs, and dairy products is equal to or slightly above consumption, but they use much livestock feed grown elsewhere.

The Western States consume 12 percent of the Nation's fruits and nuts while producing 55 percent; and 11 percent of vegetables and melons while growing 36 percent.

#### Our food is safe and wholesome



WE CAN BUY food with confidence, knowing that it is the safest, cleanest, and most wholesome food in the world.

Food safety begins with farmers and ranchers, who use the latest knowledge acquired by research to protect crops and livestock from pests and diseases that could impair food.

Food safety continues from the farm through marketing into our grocery.

Our meat and poultry inspection systems are the envy and models of the world.

For more than a half century, the U.S. Department of Agriculture has been responsible for the wholesomeness, safety, and proper identification of red meats in interstate and foreign commerce.

Each animal is inspected under veterinary medical supervision.

Nearly 22 *billion* pounds of red meat were inspected and certified as wholesome in 1960. This included 11.5 *billion* pounds of beef, 9.1 *billion* pounds of pork, 675 million pounds of lamb and mutton, and 621 million pounds of veal.

But inspectors condemn and destroy nearly a million pounds of meat and meat products each working day because of disease, spoilage, or contamination.

Evidences of contagious disease are referred to Federal and State veterinarians to aid in disease prevention on farms and ranches. More than 5 *billion* pounds of poultry (ready-to-cook weight) were certified as wholesome by USDA inspectors in 1960.

Many foods are graded.

Grading enables us to know the quality, as well as the wholesomeness, of the food we buy. Some products are graded for size. You've seen the "Grade A Large" label or stamp on cartons of eggs.

More than 7.5 *billion* pounds of meat and about 3 *billion* pounds of poultry were graded in 1960.

Eighty-five percent of all fresh fruits and vegetables marketed are sold under Federal grades; 90 percent of frozen fruits and vegetables; 23 percent of canned fruits and vegetables.

Graded products also include: 22 percent of shell eggs, 81 percent of dried eggs, 43 percent of butter, 51 percent of the dry milk. 70 percent of the rice, 60 percent of the peas, and 45 percent of the beans.

Thousands of processing plants that prepare our food have USDA inspectors present to supervise every operation to see that the product is wholesome and unadulterated. This is known as "continuous" inspection.

#### It's farm fresh and nutritive



VACUUM COOLING and hydrocooling probably can't be found in the dictionary, but they mean better food at the fresh fruit and vegetable counters in the supermarket—

Crisp lettuce, celery, cabbage, and spinach.

Sweet corn that's truly sweet, and garden-fresh green peas.

Tree-ripened peaches.

These and many other vegetables and fruits reach us with more of the farm freshness because of modern marketing, handling, and transportation methods. Vacuum cooling of lettuce is an example.

For more than 30 years, a carload of California-grown lettuce shipped to eastern markets consisted of about 20,000 pounds of lettuce and 40,000 pounds of ice. The cost of ice and its transportation was included in the price we paid for lettuce.

Then, in 1948, came vacuum cooling. Crated lettuce was placed in a steel tank equipped with a steam vacuum pump and a condenser. Water on the lettuce evaporated at a temperature of about 32° when a partial vacuum was created. A half carload of lettuce could be cooled in 20 or 30 minutes to 35° from field temperatures of 65° to 70°. The cooled lettuce could be shipped with icebunker refrigeration and air-circulating fans as far as icepacked lettuce.

More than 90 percent of the shipments of lettuce from Western States now are vacuum cooled. The lower costs of packing, refrigeration, and freight more than offset the cost of vacuum cooling. The method now is used to cool many other vegetables, including sweet corn.

Sweet corn loses sweetness so fast at  $70^{\circ}$  to  $80^{\circ}$  that in a few hours it no longer tastes like fresh sweet corn. Research showed that it will have acceptable quality for several days if it is cooled to  $40^{\circ}$ . At  $32^{\circ}$ , it will hold quality even longer.

Hydrocooling (immersing the product in ice water) is widely used for peaches. Peaches can be shipped to distant markets now with less decay on the trip.

The conditions that keep fruits and vegetables fresh and attractive usually help them retain their nutritive value. Spinach may lose as much as half of its vitamin C, as well as its desirable appearance, in 3 days at ordinary room temperature. At 34° to 37°, it loses considerably less vitamin C.

Research is finding—and food processors and handlers are using—new knowledge on the temperatures needed to retain high quality in frozen foods. To keep frozen concentrated orange juice at top quality, it must be stored at or below zero. A single day at 25° to 30° damages the quality of frozen peaches more than storage for a year at zero.

Millions of dollars are shaved from our food bill through improved handling and marketing which also help to get wholesome, nutritious food to us. Hydrocooling and the use of multiwalled bags reduced the shipping costs of Texas carrots by \$1 million a year. When research showed that California grapes shipped out of storage needed less refrigeration than they were getting, the saving amounted to \$780,000 a year. Tomatoes also were getting too much refrigeration. Reduced refrigeration and improved shipping containers for tomatoes are saving \$1 million annually.

There's more of farm freshness in our processed fruits, too.

Remember the pleasant aroma of jellies and preserves being prepared? You smelled this aroma because some of the volatile flavors were being boiled away.

USDA has perfected a new process that preserves the delicate fruit flavors and aromas. In this process, the fruit juices are never boiled—only heated for a few seconds.

## It's the kind of food we want



REMEMBER WHEN-

We wanted a small turkey to fit an apartment oven, or to feed a small family? And all we could find was a hen weighing 10 to 15 pounds. or a tom weighing 16 to 30 pounds?

It took researchers about 10 years to perfect a small, meaty turkey. The hens weigh 5 to 9 pounds. the toms 9 to 15 pounds.

We now buy 12 million small turkeys a year. Large families, hotels, restaurants, and other institutional users still want the large turkeys. They buy about 65 million of them a year.

In 1960, we ate 6 pounds of turkey per person—nearly 3 times as much as we ate in 1935–39.

Many varieties of vegetables and fruits going to market today were unknown a few years ago. Newer and better varieties are on the way, to give us the flavor, color, texture, and other qualities we want.

Our demand for "fresh qualities" in frozen fruits and vegetables and in fruit juices is being met by researchers, farmers, and those who market and process food.

We like a richly colored grape juice. A new grape provides an intensely red juice for blending with less colorful grape juice.

The "tangerine season" normally begins after Christmas, when present varieties ripen with marketable sweetness. In a few years, we will be able to buy tangerines in October and November. Three newly developed tangerine hybrids mature fruit in autumn.

If we prefer the flavor of freestone peaches to cling peaches, we can buy canned freestone peaches now. For years, the freestones lacked the good canning qualities of the clings. Then, freestone varieties were developed for canning.

We want frozen strawberries with the same good red color and flavor of the fresh fruit. Several varieties introduced in the past 10 years—one as recently as 1959—give us these qualities. Today, about half of the strawberry crop is frozen, and we have fruit of near-fresh quality the year around.

New varieties have qualities other than "good eating." They yield well, resist diseases, and are good "shippers."

#### New foods are on the way



WOULD WE LIKE-

- "Dry" fruit juices that can be stored on the pantry shelf?
- "Dehydrofrozen" fruits and vegetables with weight and bulk reduced to save 2 to 5 cents a pound on refrigeration, shipping, and storage?
- Dehydrated sweetpotatoes, similar to dehydrated mashed potatoes?
- Dry *whole* milk that combines instantly with cold water and has the full flavor of fresh milk?

We can expect some of these near-miracles from research soon; others may take years to perfect. Foods in other forms also are on the way. Frozen concentrated orange juice is a classic example of a food in a new form that helped both producer and consumer.

Research on frozen citrus concentrates began in 1943. Commercial production was started in 1945-46. We liked the product so well that about 78 million gallons of frozen concentrated orange juice were produced in the 1959-60 season—a new and multi-million-dollar market for grove owners.

The process also gave us many other frozen juice concentrates tangerine. grapefruit. lemon. lime. pineapple. grape, apple, and tomato.

We consumers determine the kinds and qualities of foods developed by farmers and the food industry for the Nation's grocery shelves. We do this when we buy or refuse to buy the products offered.

Frozen peas are an example. From 1946 through 1949, frozen peas were not widely accepted by consumers. We didn't like the "off-flavor" they had. USDA researchers in 1949 discovered how to prevent the "off-flavor."

Today we are buying twice as many frozen peas as we did in 1949.

#### Abundant, wholesome food for the future



If our population reaches 230 million by 1975 (as is predicted). farmers and ranchers must produce—

16.3 billion pounds more red meat.

47 billion pounds more milk.

20.7 million tons more fruits and vegetables.

20 billion more eggs.

These increases will be necessary if we continue improving our diets at the same rate as in recent years.

To produce needed additional quantities of these and other foods. another 200 million acres of cropland would be required if yields in 1975 were the same as 1956.

But we don't have 200 million more acres of cropland—and we won't need them.

Rising productivity and efficiency on farms and ranches will make it possible to feed 230 million people in 1975 from about the same total acreage used now. Further, today's farmers increasingly are applying the soil and water conservation measures needed to protect land for maximum safe use in 1975—and far beyond that date.

## FOOD, the Yearbook of Agriculture 1959

Some of the information you've just read came from FOOD, The Yearbook of Agriculture 1959. This 736-page book is brimful of food facts—nutrients, needs, quality, preparation (including recipes), costs, trends, and other aspects of food. FOOD may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for \$2.25.

#### Other Sources of Information

Many other publications and periodic reports of the U.S. Department of Agriculture provided information contained in this background report. When more recent material was available, it was included in this brochure.

The sources included:

Food for the Future Through Research, AIB No. 220.\* Food Costs, MP 856.\*

Developments in Marketing Spreads for Agricultural Products in 1959. (Single copies may be obtained from Agricultural Marketing Service, U.S. Department of Agriculture, Washington 25, D.C.)

Agricultural Statistics 1960. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price \$1.75, paper cover.)

Various periodic situation reports of the Department, such as The National Food Situation, The Marketing and Transportation Situation, The Demand and Price Situation, and The Farm Income Situation.

#### **Background on Our Nation's Agriculture**

Many additional facts about American agriculture are included in the pocket-size Leaflet 491, *Background on Our Nation's Agriculture*.\* It reports briefly on clothing and shelter as well as food, and presents the role of the American farmer as a customer of business and industry, as a creator of employment, and as a supplier of raw materials for industry.

\* Single copies may be obtained by request to the Office of Information, U.S. Department of Agriculture, Washington 25, D.C.





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