

THE ABC'S
OF
CANNED FOODS

National Canners Association

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FOREWORD

If all the food cans Americans open in a year were laid end to end, they would stretch a distance equivalent to three round trips to the moon. Add all the glass jars, and the distance becomes even more astronomical. No one will deny that this mileage is impressive. But it is even more impressive that the population of a relatively small part of our own planet consumes the entire contents of all these glass and tin-plated containers.

An industry of such size - and importance - as the canning industry obviously merits public interest. Yet how many canned foods consumers know anything about the canning process or its background? Could you give the answer if you were asked how many years the canning industry has been in existence, or who started it on its way to name and fame? Would you know how many people the industry employs or how many different foods it packs?

We do not propose to make a quiz program category of canning, but we believe an X-ray eye should be focused on it to reveal its hidden structure. We want you to know how it's done, why it's done, who it's done for and who does it.

We want to tell you, too, about some of the foods the canning industry packs in large quantities. They are listed alphabetically in a section of their own. Look for the product under its initial letter; you can then look deeply into its past and learn its inmost secrets. You can also learn all the facts about its canning, from crop to container.

This book includes material which may interest and even surprise you, and you may want to pass some of it along to your audience. We hope so.

National Canners Association
Consumer & Trade Relations Committee

workers every year at peak of harvest. This last figure takes on more significance when compared with some earlier findings on the subject. In 1870, it was thought that the Civil War had put canning on the map, yet only 6,000 people were engaged in preserving food.

By 1890, automatic machinery had taken the cannery processes by storm, and employment in the field rose to 50,000 - more than eightfold increase in twenty years. It took almost forty years more for this figure to double itself: in 1929, a boom year, cannery employment had reached 100,000. And then the next twenty-odd years saw another spectacular rise to the present total employment figure of 500,000. Add to this increase the corresponding increase in productivity per worker due to new and better machinery. If the result doesn't surprise you, you're a hard reader to surprise.

In other words, canning is a definite force to be reckoned with. Not only does it employ so many people numerically, but it stabilizes the entire food economy. Because canneries use crops in such huge quantities, they plan the planting so that harvesting will be done at intervals and keep the maximum number of people working for the maximum periods of time. There is no limit to how much tuna or salmon may be taken in hand and canned in season; the same holds for corn or peas in months of plenty. For this reason, nothing goes to waste, everyone eats better and more people work.

In terms of output, the rise of the canning industry is as unprecedented as in terms of employment. The year 1870 saw about 30 million cans of food reach the market.

Output goes up The year 1929 saw 10 billion cans of food do exactly the same - more than 300 times as many as 60 years previous. And the figure has almost doubled again since 1929, the annual output having now passed the 19 billion mark. In the same period, 1870 to the present, our population has quadrupled, which means that there are 150 times more cans of food consumed per person than there were 80 years ago. In the last 10 years alone, per capita consumption has risen about 50 per cent - it now amounts to 135 pounds annually per capita.

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During this meteoric rise in production and consumption of canned foods, prices have remained remarkably stable. A comparison between 1952 and 1919, the first year for which the government kept records of canned vegetable prices, reveals the following state of affairs:

Price stays down Between 1919 and 1952, the price of round steak nearly tripled, the price of coffee doubled, the price of potatoes nearly doubled, and the price of bread rose 60 per cent. But, as of May, 1954, the price of canned corn, one of the leading canned products saleswise, has remained exactly the same in representative stores, and the price of canned peas has risen only 15 per cent - from 19 to 22 cents for a No. 2 can. It is clear that the shopper who wants a good buy cannot do better than choose stable staples such as these. And the bargain is even better than the price comparison indicates.

Between 1919 and 1954, a great many qualitative improvements in food canning took place as scientific researchers put their collective fingers on the several problems which canners face. Starting from seed, better breeds have been developed, tests have been devised to show exactly when and how to raise and harvest various crops. High-speed machinery has enabled canners to process food so quickly that it retains as much nutritive value as its fresh counterpart. Furthermore, constant taste-testing and investigation results in processing designed to make the most of flavor. The shopper pays little more than she paid 35 years ago and she's getting better food for the money.

One might legitimately ask, how is all this possible? The answer lies in mass production. When the first canning machinery loomed over the horizon, cannery workers became so panicky that they not only struck but in some instances actually drove the unfortunate inventors out of the canneries. In the long run, of course, machinery took over as it inevitably must. The result undoubtedly amazed the workers who had feared unemployment but found that the efficient time-saving machinery brought canned foods to many more consumers and employment to many more workers than before. Machinery also reduced the prices of canned foods sharply by the drastic saving effected in labor costs per unit. The can of peas which retailed for 22 cents in 1952, cost

the venturesome purchaser \$3. in 1850! And she ran the risk of having it spoil, or possibly even explode in her face after she had kept it around the house awhile.

In the agricultural world, canning occupies a most prominent place. Eighty per cent of the corn and tomatoes raised in this country, and 75 per cent of the green peas and beets, are harvested for canning. Half the asparagus

*Canning
helps
farmers*

crop reaches the consumer in cans. Seventy per cent of our national acreage used for planting eleven leading vegetables is accounted for by vegetables to be canned. Moving into the realm of orchards, canneries continue to hold their own: about half of all the peaches, pears and apricots go from tree to can, as do half the grapefruit in section or juice form, and 30 per cent of the oranges.

Forsaking the land for the sea, the fish canning enterprises employ thousands of men and yield an annual value amounting to nearly 375 million dollars. It is well known that the salmon fisheries are the backbone of Alaskan industry; in fact, they produce more wealth than the Alaskan gold mines!

The canned meat situation is equally worthy of notice. Total annual dollar sales of canned meats rival those of basic foods such as cereals and flour. Eighty-five out of every 100 American families, a survey reveals, use canned meats at some time during the year.

Finally, the canning industry extends its reach well beyond the actual foods it deals with. The men and women who make the cans, jars and labels, the people who supply the seasonings - salt and sugar in particular - those who make the cartons, shipping containers and the canning machinery, all reap the rewards of America's appreciation of canned foods. It need hardly be added that the ranks of grocers, from broker to retailer, also take their places among the direct beneficiaries of canning. Canned staples are easier to transport, display and store than any other category of foods, and they yield the grocer a high net profit. And the rest of us have the canning industry to thank too - for the varied year-round fare it sends to every American table.



Seventy-five years back, a little dipper went a long way.

LIFE PRESERVERS (Canning and Health)

It is no exaggeration to say that preserved foods have frequently preserved lives. During several wars, Civil and uncivil, from Napoleonic times on, they have supplied vital victuals to fighting men. In peacetime, they have been a boon to all travelers, especially infants and explorers. The tributes of infants to canned foods are alas unrecorded, but nineteenth-century explorers were certainly among the first steady customers for canned foods, and the first to pay them homage. Canned foods have provisioned most major explorers breaking new ground during the past 150 years. Peary used them at the North Pole; Byrd in the Antarctic. As far back as 1819 they fed Captain Edward Parry on his expeditions to discover the Northwest Passage. As a food authority at the turn of the century said, the pathway to progress is lined with the debris of used food cans.

During the eighteenth century, a kind of dehydrated soup meat known as "portable soup" had been regularly taken on long sea voyages much to the chagrin of all those who sampled it. The first canned meats therefore received a royal welcome aboard ship. Captain Basil Hall summed it up in 1835: "Meat thus preserved eats nothing - nor drinks - it is not apt to die - does not tumble overboard or

taken to keep fruit juices and other such foods away from air at all possible times while they are being processed.

Another crucial factor in preserving nutritive qualities is time. By literally rushing fruits and vegetables from field or orchard to the cannery and speeding up the canning procedure to its briefest period, the products emerge intact as far as life-preserving characteristics are concerned. Cannerymen take pains, too, to keep cooking water down to a minimum when products are blanched, as minerals and vitamins may be dissipated in too much liquid.

The canner does everything in his power to bring the best possible foods to the consumer, and it is for the consumer to finish the job. Many people incline to dispose of any liquid contained in a can. They should change their habits, because they are wasting good nourishment. To get the most value from canned foods, the liquid should be quickly reduced by boiling, the food then added to the liquid and kept over a moderate flame until just hot. The reduced liquid may be served with the food.

Canning, like any other new invention, has borne its share of prejudice. Because the first preserved salmon came in cans painted red, it was many years before consumers would admit that a can of salmon of any other color would contain as good a product. This prejudice, though laughable, was relatively harmless; other superstitions have been more difficult to overcome.

Late in the nineteenth century, scientists discovered certain decomposed proteins and named them ptomaines.

Though no evidence exists to prove that anyone has ever been poisoned by said ptomaines, the theory of ptomaine poisoning sprang into being and it was long supposed that canned foods were responsible for this disagreeable, if mythical, complaint. Any stray attack of indigestion conveniently became ptomaine poisoning while the assembled family looked daggers at the assembled canned foods in the house.

At one point in the game, workers in the industry actually helped to spread these groundless rumors. Alarmed by the advent of can-making machinery, they issued propaganda to the effect that only hand-made cans held pure food, the machine-made variety mysteriously imparting poison

COMMON CONTAINER SIZES

The labels of cans or jars of identical size may show a net weight for one product that differs slightly from the net weight on the label of another product, due to the difference in the density of the food. An example would be pork and beans (1 lb.), blueberries (14 oz.), in the same size can.

Container			Products
Industry Term	Consumer Description		
	Approx. Net Weight (check label)	Approx. Cups	
8 oz.	8 oz.	1	Fruits, vegetables, *specialties
Picnic	10½ oz.	1¼	Condensed soups, small quantities of fruits, vegetables, meat and fish products, *specialties
12 oz. (vacuum)	12 oz.	1½	Used largely for vacuum packed corn
No. 300	1 pound (14 oz. for blueberries, 1 pound for most other products)	1¾	Pork and beans, baked beans, meat products, cranberry sauce, blueberries, *specialties
No. 303	16-17 oz.	2	Fruits, vegetables, meat products, ready-to-serve soups, *specialties
No. 2	1 lb. 4 oz., or 20 oz., or 18 fl. oz.	2½	Juices, ready-to-serve soups, *specialties, and a few fruits and vegetables
No. 2½	1 lb. 13 oz., or 29 oz.	3½	Fruits, some vegetables, (pumpkin, sauerkraut, spinach and other greens, tomatoes)
No. 3 Cyl.	3 lb. 3 oz. or 46 fl. oz.	5¾	Fruit and vegetable juices, whole chicken, pork and beans, condensed soup and some vegetables for institutional use
No. 10	6½ lbs. to 6¾ lbs.	12-13	Fruits, vegetables for restaurant and institutional use

Strained and Homogenized foods for infants, and chopped Junior foods, come in small jars and cans suitable for the smaller servings used. The weight is given on the label.

Meats, Poultry, Fish and Seafood are almost entirely advertised and sold under weight terminology.

*SPECIALTIES: Usually a food combination such as macaroni, spaghetti, Spanish style rice, Mexican type foods, Chinese foods, tomato aspic, etc.