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Tuesday, August 5, 1941

QUESTION BOX

Safe method for canning sweet corn  
How preserve corn by salting  
Heat and light affect vitamins in vegetables  
canned in glass

ANSWERS FROM

scientists at  
various State agri-  
cultural experiment  
stations.

--ooOoo--

This week's batch of letters brings several questions about canning food at home. Answers to these questions come from scientists at various State experiment stations.

To begin with, here are a couple of questions about putting up sweet corn. A housewife writes: "Last year I tried canning corn in the oven and every single jar spoiled. What is the safest way to put up sweet corn?"

The answer is: The only safe method of canning corn or any other non-acid food is under steam pressure. Canning scientists of the U. S. Department of Agriculture and also State experiment stations agree that to try to can corn in the oven, or in a boiling-water bath, or in a plain steamer, is dangerous and wasteful. This year especially you don't want to take a chance on spoiling good food or on sickness as a result of the wrong canning method. Corn needs heat above the boiling point to keep safely. And the only way to get that safe high heat is in a steam pressure canner. If you haven't a steam pressure canner-- and can't borrow or rent one, better not try to can corn. Better put it up by salting, or drying, or fermenting.

You may be interested in an experiment they made at the Montana Station a few years ago. Scientists there put up 140 cans of corn and processed them the correct time under the correct pressure. Not one jar spoiled.

They also put up corn in the oven, in a steamer, and in a boiling-water



bath. What happened? Almost every jar canned in the steamer spoiled. Almost every jar canned in the oven spoiled. A large number of the jars processed in the water-bath spoiled, too.

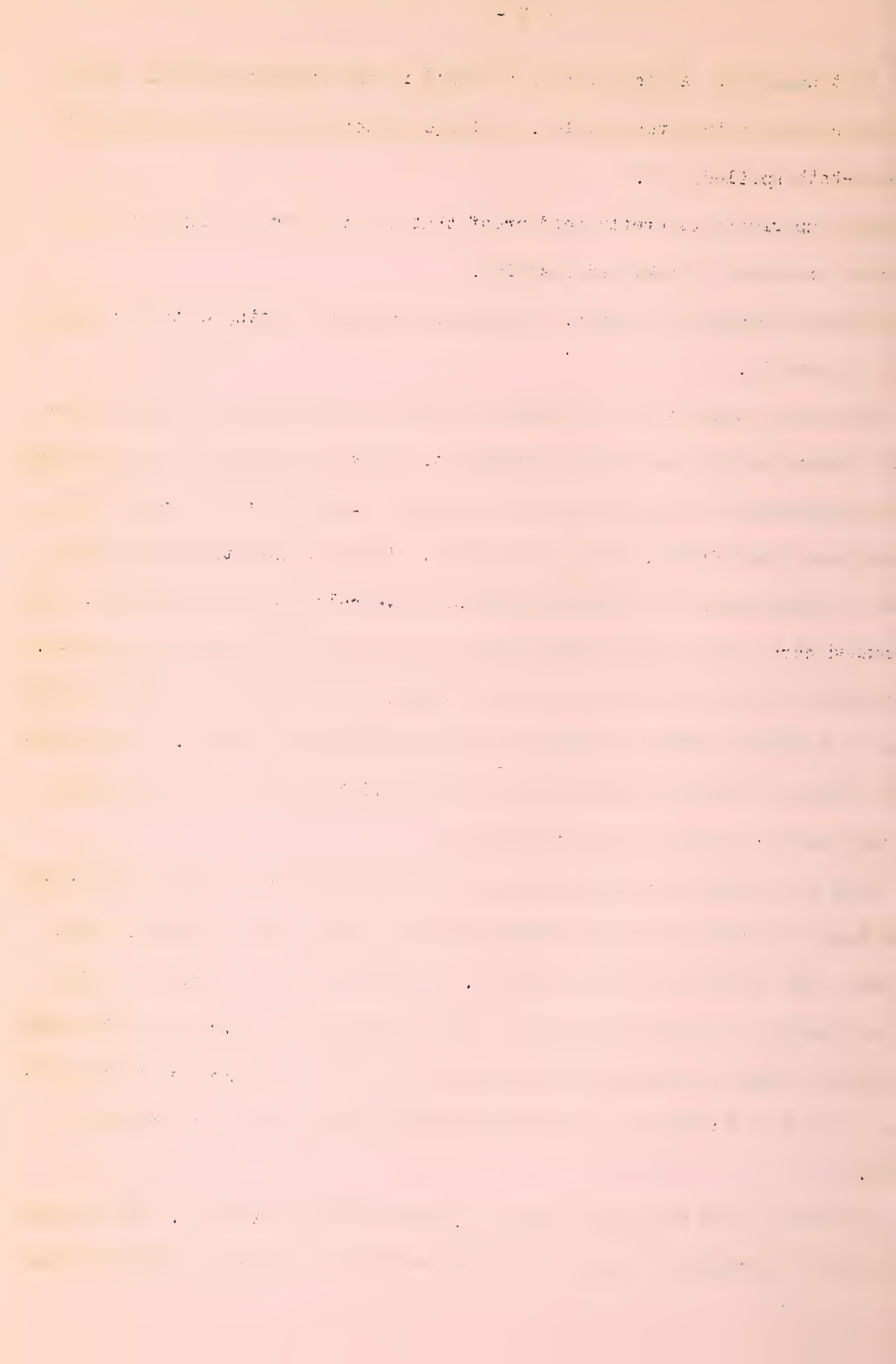
This experiment is pretty good proof that canning corn by any method except steam pressure is risky and wasteful.

Now for the second question. A housewife asks if salting corn is a safe way to preserve it.

The answer comes from the Montana scientists who tried out salting, drying and fermenting corn as well as canning it. They say salting is an excellent way to preserve sweet corn if you do it properly. They say salted corn keeps well and has a fine flavor, color and texture. In fact, when they tested for flavor and appearance, the Montana scientists gave salted corn first place. They gave canned corn second place, dried corn third place, and fermented corn last. They reported that canned corn is good in flavor, but the heat of canning usually browns it a little, probably because it turns the sugar to caramel. As for fermented corn, the scientists found that it kept well but had a sour taste much like sauer kraut--not much like fresh corn.

Here is a recipe for salted corn, as recommended by the Montana scientists. Plunge ears of husked corn into boiling water and cook 8 to 10 minutes. Cool the corn. Cut it from the cob. Weigh it. Then pack it in a stone jar using alternate layers of corn and dry salt. Use 1 part salt to 7 parts corn by weight. Over the corn place a heavy weighted cover so the brine will come up to the surface. After 2 or 3 weeks, put the salted corn in clean glass jars and seal tightly.

You know one of the chief values of yellow corn is vitamin A. So you may be interested to know that when the Montana scientists tested the Golden Bantam



corn they had preserved by these various methods, they found salted corn and dried corn kept vitamin A best; canned corn lost about half of its original vitamin A.

Now here's a question about where to keep your vegetables after you have canned them. A housewife says: "Canning directions always say to store canned food in a dark cool place. Do canned vegetables lose vitamins faster stored in a warm place than in a cool place?"

A recent study at the Massachusetts Station indicates that both light and heat affect the vitamins in vegetables canned in glass jars. Heat also affected the flavor of the vegetables. Massachusetts scientists tried out peas, spinach and tomato juice canned in glass jars. They kept some of these canned vegetables a year in a cold place where the temperature registered 36 degrees Fahrenheit. They kept the others a year at ordinary room temperature--around 70 degrees. The canned vegetables stored in a cold place lost very little vitamin C--only 5 percent-- and were much superior in flavor to those kept in a warm place. Those stored at room temperature lost 21 percent of their vitamin C and lost most of that during the first few months of storage. However, 21 percent is not such a great loss. So even the vegetables kept in a warm place were valuable for vitamin C at the end of the year.

Light had an effect on the vitamin A in the vegetables. Those stored in bright light lost more vitamin A than those stored in a subdued light. Jars of amber colored glass helped save vitamin A, too.

Well, that's all the questions and answers for today. More on Thursday.

