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U. S. DEPARTMENT OF AGRICULTURE

QUESTION BOX How preserve rhubarb juice : What makes beans tough? Liver patties for six?

## Tuesday, April 14, 1942

ANSWERS FROM Food scientists at various State agricultural experiment Stations

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NON-COMMERCIAL BROADCASTS

Thick and fast is the way the questions have been coming in lately, and that: putting it mildly.

The first question comes from a housewife who has more rhubarb ready in the garden than she knows what to do with. She writes: "We have all the rhubarb sauce, pie and shortcake we can eat. I've canned all the sauce we'll need for the whole year. And I've given a lot of rhubarb to the neighbors. But I still have quantities of young tender stalks that I don't like to see go to waste. Can you suggest any way to use or save them?

Here's an answer from food scientists at the New York State Experiment Station. They say: Why not put up rhubarb sauce for fruit drinks during the summer or, for that matter, for the whole year? These scientists made a special study of rhubarb juice. They say it has a pleasantly tart flavor and blends well with sweeter milder juices like apple, or cherry, or berry juice. Rhubarb juice makes a good base for fruit punches. And preserving it is a simple process.

Use rhubarb that is still young, thender and juicy. Older stalks are too tough, fibrous and difficult to press. If you want juice with an attractive pink color, use the more highly colored varieties like the Ruby or the Strawberry.

Mash the rhubarb thoroughly. Cut off the white butts and any bits of leaf. Then shred or crush the stalks slightly before you heat them. Shredding or crushing lets the heat get at the stalks quickly, and starts the juice flowing. The scientists found that an easy way to crush rhubarb is to run it through an ordinary clothe

wringer with the rolls set well apart so very little juice comes out.

Now heat the crushed rhubarb until the stalks are tender but not mushy. About a minute and a half of heating is usually right for young tender stalks. Strain the heated rhubarb through a jelly-bag or through a cloth strainer.

-2-

You can swerten the rhubarb juice before you put it up or not, as you please. Sugar helps to hold color, of course, but the juice will keep all right without it. If you add sugar, add about a pound of sugar to a gallon of juice.

Now heat the juice to the simmering point in the upper part of a double bailer for 30 minutes. (Never boil the juice. That spoils the natural flavor) Fill the hot juice into hot jars or bottles. Close the containers. Turn them upside down for 3 minutes. Colored bottles are better to use than plain bottles because they help keep the juice from changing its nice red color to brown. Store the juice in a dark, dry, cool place.

Rhubarb juice made this way has a pleasant fruity rhubarb color, tart flavor, and the consistency of heavy-bodied apple juice. You can mix it with mild sweet fruit juices or with carbonated beverages. It makes a good base for fruit punch too.

Now from this question about rhubarb lets go on to one about cooking dried beans. A housewife complains that she had no success with homemade baked beans. No matter how long she soaks and boils the dried beans, she says, they're always hard and tough. She asks why.

The answer comes from the Nebraska Experiment Station. Some years ago food scientists at that station made a study of cooking beans. They found that certain minerals in soil and water-magnesium and calcium salts will make beans hard and tough. If you soak or cook beans in hard water containing these salts, the skin of the beans gets so hard and tough that the beans won't absorb water and cook tender. So yone important rule for cooking beans is: Use soft water. Use rain water, if you live in a hardwater locality, or at least partially soften your hard water by boiling it 20 to 30 minutes. This boiling will settle out some of the mineral salts that make the water---and also the beans--hard.

The Nebraska scientists found out a couple of other things about tough, hard beans. They found that some bean skins are naturally hard because they naturally contain a lot of calcium. Other bean skins become hard during long storage. Then, too, the molasses or tomato juice that you add to flavor beans may cause them to harden during cooking. Molasses often contains considerable calcium. If you like molasses to flavor your beans, add it toward the end of the cooking rather than at the beginning. Then it won't have time to toughen the beans. The acid in the tomato juice may have a hardening effect on beans. So add tomato also toward the end of the cooking.

Last question: A housewife asks for directions for making liver patties.

Here's a recipe from the Minnesota Experiment Station. Here's what you need for liver patties for 6: One pound of liver....6 slices of bacon....one-fourth cup bread crumbs.....one teaspoon onion juice....one-fourth cup of tomato puree....one egg beaten....one teaspoon salt....and one-fourth teaspoon pepper.

To make the patties, drop the pound of liver in boiling water for just 2 minutes. Then remove the skin and chop the liver. Fry the bacon just a little ----not crisp. Mix the bacon fat with the chopped liver, the bread crumbs, onion juice, tomato, egg, salt and pepper. Mix well. Form into patties. Wrap a strip of bacon around each cake and fasten it on with a toothpick. Now bake the patties in a greased pan in a slow oven for about an hour.

That's all the questions for today. More on Thursday.

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