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HOUSEKEEPERS' CHAT

Saturday, February 27, 1937

(FOR BROADCAST USE ONLY)

Subject: "NEWS NOTES FROM WASHINGTON." Information from the Bureau of Chemistry and Soils and the Bureau of Plant Industry, U. S. Department of Agriculture.

--ooOoo--

Guess what common root-vegetable has been making headlines lately. The sweetpotato, ladies -- at least that's what our Washington correspondent reports in this week's letter. After all these years of being a faithful dinner-table standby, especially in homes in the South, lo and behold, the sweetpotato is stepping out into the commercial field. Department-of-Agriculture scientists, who are always searching for new ways to use the country's agricultural products, have discovered some interesting new uses for the sweetpotato. But let me read you today's letter about it.

Writes our correspondent: "One of these days soon, you and I may be writing our letters on paper that has been sized with sweetpotato starch, or licking a stamp or envelope that has been gummed with it, or wearing a dress of fabric stiffened with it. And one of these days, we may be buying sweetpotato chips for picnics and parties. For chemists of the Bureau of Chemistry and Soils have found that sweetpotatoes are an excellent source of starch for laundry use, for sizing fabrics and paper, and for adhesive manufacturing. And scientists of the Bureau of Plant Industry have discovered that sweetpotatoes make delicious chips and have perfected a method of making them. The sweetpotato is going to town!

"But that won't prevent it from still appearing day after day on thousands of American dinner tables -- appearing baked, boiled, mashed, candied or in sweetpotato pie, and thus supplying thousands of families with much-needed calories, vitamin A, iron and so on. The chemists' idea in making the new starch has been to use cull potatoes and others that won't sell, to develop a sweetpotato-starch industry that will help the farmers of the South just as the corn-starch industry helps the farmers of the Middle West. They point out that the United States now uses about 800 million pounds of cereal-starch and about 250 million pounds of root-starch a year. The cereal-starch comes from corn, wheat, and rice and is practically all made in this country. But with the exception of a comparatively small amount of Irish-potato-starch made in Maine, the bulk of the 250 million pounds of root-starch is imported. Most of the imported starch comes from cassava, a tropical plant not grown commercially in this country. And sometimes more Irish potato starch is imported than we produce.

"Japan has been making sweetpotato starch for a long time -- about 40 million pounds a year, but because this Japanese starch is the natural yellow of the potato, it sells at a discount in a market that prefers white starch.



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"So the chemists started work a few years ago on the problem of removing the color from sweetpotato starch. Before long they produced a starch not only beautifully white but also of an unusually high quality. In the fall of 1934, the Government allotted a sum of money for building, equipping and operating a sweetpotato starch plant that would provide emergency relief work and use surplus sweetpotatoes, and would also give the chemists a chance to try out their discovery on a commercial scale. The factory purchased for this project was an abandoned sawmill plant at Laurel, Mississippi, and was operated for the first time in the fall of 1934.

"The Laurel plant is the only sweetpotato starch plant in the United States and has a capacity of 200 thousand bushels of potatoes and 2 million pounds of starch per 100-day season. It has been deeded to the Mississippi Agricultural Experiment Station and is leased to a self-help cooperative organization of farmers, over half of whom are being rehabilitated. The Bureau of Chemistry and Soils has chemical and technical direction of the work but the operation is under a plant manager employed by the association.

"During 1934, the first year the plant was operating, it produced 140 thousand pounds of sweetpotato starch, the second year, 250 thousand pounds and last year, 420 thousand pounds. By using the methods developed last season, the chemists believe that a bushel of sweetpotatoes will produce between 10 and 12 pounds of starch and about 4 pounds of potato pulp which is equal to sugar-beet pulp as feed for cattle.

"You will be interested to know that cotton mills have been trying the new starch as well as adhesive factories and laundries, and that they have all found it satisfactory. Large quantities of starch are used in sizing yarns for weaving into fabric. Big cotton mills use it by the tons. As for its use as an adhesive, dextrin made from sweetpotato starch is the only domestic starch product that meets Government specifications for use on postage stamps, labels and envelopes. At present the cassava starch which we import is used altogether for this purpose.

"So much for sweetpotato starch. Now about sweetpotato chips. Mr. B. C. Brunstetter, associate biochemist of the Bureau of Plant Industry, has recently perfected a method for making these chips and has taken out a public service patent on it which will allow any citizen to profit by his findings. He reports that you can use the same equipment used for sweetpotato chips as for Irish potato chips, but that the frying temperature for sweetpotatoes must be lower than for white potatoes, because the large sugar content in the sweetpotato burns or caramelizes so easily at high temperatures. In damp weather sweetpotato chips lose their crispness but they will regain it in a dry atmosphere at room temperature.

"Some day I'll go into the matter of chip-making in more detail. Right now the Department's mail collector is at my elbow, which means that it's high time to say good-bye."

That concludes this week's news letter from the Department of Agriculture at Washington, D. C.

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