

is increased by the presence of so many permeable tracts," Dr. Wainwright said.

Zinc chloride also could penetrate the lamellae, decayed areas and other defects. Nearly all the lamellae could subsequently be plugged by other substances, however, so they were not considered permanently plugged.

Plutonium, atom bomb material, when used in a citrate complex did not penetrate decayed areas and defects. It attached itself to the surface of the enamel.

Discovery of this vulnerability of the tooth, said to be of prime importance in the prevention and treatment of tooth decay, was made by applying the substances in their radioactive form to teeth that had been extracted. After treatment with the radioactive chemical, the teeth were dissected and the dissected portions applied directly to X-ray film. This gave radioautographs of the teeth for study of their structure.

Science News Letter, November 11, 1950

METEOROLOGY

Warmer and Drier November for U. S.

► THE last two weeks in November will be warmer and drier than usual over most of the nation. However, the Pacific Coast including Washington and Oregon, and parts of Idaho, Montana, Utah and Nevada will have more rain or snow than usual.

Thus the U. S. Weather Bureau's extended Forecast Section, in its regular twice-a-month, 30-day forecast, offers little hope for relief to the flood-threatened Northwest.

Temperatures of the southern Rocky Mountain states will go higher than those of most of the nation in November. They are expected to be "considerably" above normal, the Weather Bureau says. Only northern New England and northwestern Washing-

ton will be colder than usual and then only slightly so.

Near normal rain or snow is expected only along the nation's northern border and in the northeast.

Science News Letter, November 11, 1950

BOTANY

Predict Apples That Do Not Turn Brown in Air

► APPLES for your Waldorf salad that will not require any special attention to keep them from turning brown in the air were predicted.

"Apple breeders now have available to them a German apple with this desirable trait. If there is sufficient demand for an American apple that will not turn brown when exposed to air, then I see no reason why the breeders can not develop it."

So states Dr. William E. Whitehouse of the U. S. Department of Agriculture's Plant Industry Station, Beltsville, Md., in charge of introductions for the improvement of fruit and vegetable crops.

There is one German apple now available with a non-oxidize system, that is, a system that will not turn brown, or oxidize, when exposed to air. Two other apple varieties with this same trait have been discovered within the past year and these will also be made available to breeders.

Dr. Whitehouse also predicted the possibility of improving present day apple varieties by breeding those with increased vitamin C content, with the spice-like flavor found in some English apples and with the smooth, after-cooking flesh texture found in certain German and New Zealand apples.

The world-wide search for apples with desirable traits was begun over 15 years ago. Since it takes about eight years for a tree to bear fruit and since frost delayed bearings for five years in a row, the rich collection of foreign varieties is just be-

ginning to be distributed to breeders. Over 1,500 varieties have been rounded up, and only 700 of these have so far had their characteristics thoroughly studied, Dr. Whitehouse stated.

Science News Letter, November 11, 1950

All the sugar in the bread dough does not remain as sweetening; some is converted by the yeast into carbon dioxide and alcohol gas which causes the bread to rise.

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