

# Questions

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Photographs: Cover, Brush Laboratories; p. 83, Radio Corporation of America; p. 85, American Locomotive Company; p. 87, General Electric Company; p. 90, National Heart Institute; p. 96, Bakelite Company.

## FORESTRY

### Squirrels Are Menace To Pine Reforestation

► **SQUIRRELS** ARE a serious menace to the redevelopment of ponderosa pine forests in the West after timber cutting, A. E. Squillace, U. S. Forest Service, has found.

Working at the Northern Rocky Mountain Forest and Range Experiment Station, Missoula, Mont., he has discovered that squirrels removed between 77% and 89% of the available seeds in the years 1951, 1952 and 1953 in a test timber stand.

In addition to removing the maturing crop of seeds each year, squirrels also injured the conelets which are developing seeds for the following year.

Mr. Squillace said timber growers should consider the possibilities of controlling squirrel populations in ponderosa forests to maintain a steady production of trees.

Science News Letter, February 6, 1954

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## PUBLIC HEALTH

# Pale Oranges Foreseen

Food and Drug Administration holds hearings on proposals to ban use of three coal-tar colors that are tints for foods, cosmetics and drugs.

► **CHILDREN SICK** after eating too much Halloween candy, oranges consumers refuse as less tasty because their color is not orange, milady's cheeks and lips decorated with less pleasing hues, pale hot dogs, and a million dollars a year in dyes alone were some of the problems involved in hearings held by the Food and Drug Administration in January.

The hearings concerned proposals to ban the use in foods, and perhaps also in drugs and cosmetics, of three coal-tar colors, or dyes, known as FD&C Red No. 32, FD&C Orange No. 1 and FD&C Orange No. 2. (The FD&C stands for Food, Drug and Cosmetic and refers to the FD&C Act of 1938.)

Chemically, these dyes are 1-xylylazo-2-naphthol, monosodium salt of 4-p-sulfophenylazo-1-naphthol, and 1-o-tolylazo-2-naphthol.

The second one in the list, FD&C Orange No. 1, was one of the first water-soluble azo dyes manufactured and was in common use in foods in the United States as far back as 1907. The other two have "obscure" histories, but were in use long before 1938. When the first so-called pure food law was passed almost half a century ago, these, among other colors, had been used in foods for many years and these three were certified for use in foods under that old law.

At that time, the safety of dyes in foods could not be tested with the accuracy possible today. In 1938, the new law made illegal the use in foods of any coal tar dye not certified. So the then new Food and Drug Administration, set up to administer the law, listed those dyes that had already been certified.

Since then, however, a number of things have been worrying FDA officials. One is that the law says if a substance is poisonous, it cannot be used in food even if the amount used is so small it will not harm the consumer. Because of that and because new tests had been developed, FDA had a series of colors tested. The results show that FD&C Red No. 32, FD&C Orange No. 1 and FD&C Orange No. 2 are not harmless, although in the quantity used in food, there has been no evidence of any injury to humans.

There was, however, that episode of some children getting stomach and intestinal upsets from Halloween candy. The candy, it turned out, was colored with a tremendously larger than usual amount of one of the colors. And the children's sickness was nothing like that seen in the laboratory animals given large doses of this same color.

Chief use for one of the three colors is in Florida oranges. Casings for sausages

take a lot of another of the colors. Cheese, cough drops and other drugs, as well as candies, cakes and cosmetics use the three colors.

If they are banned from foods and drugs taken internally, there may still be some questions about lipstick as to whether the dyes get into the body through the skin if they are in cosmetics or drugs used externally, such as lotions and creams.

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## GENETICS

### Breed Mice Strains That Tolerate Skin Grafting

► **STRAINS OF** mice so chemically similar that individuals react like identical twins to skin grafts have been bred at the Jackson Memorial Laboratory, Bar Harbor, Me.

Dr. George D. Snell of the Laboratory, reporting in the *Journal of the National Cancer Institute* (Dec., 1953), pointed out that, normally, chemical individuality is so great skin grafts between individuals cannot become permanently established. The one exception to this rule is identical twins.

In certain cases foreign grafts may function usefully for a time in supporting new growth, but ultimately the graft dies and sloughs off. Cornea transplants for the eye are not affected by this.

The members of the mice strains are so alike that skin grafts grow permanently when transplanted, Dr. Snell said. Grafts between strains, however, consistently fail.

Working with Dr. Snell were Drs. Paulo R. F. Borges and Elizabeth S. Russell, Miss Elizabeth Fekete, Miss Priscilla Smith and F. Gabrielson. The research was supported in part by grants from the National Cancer Institute, the American Cancer Society and the Anna Fuller Fund.

Science News Letter, February 6, 1954

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