

DENDROLOGY

Hurricane-Safe Trees

► THE HURRICANE SEASON is here and trees, as well as people, are in danger.

Tremendous losses were suffered by homeowners in last year's storms as thousands of valuable shade trees were hurled to the ground by the great winds, littering streets and lawns and in many cases crashing into homes and cars.

To lessen the chance of this happening in 1955, here are some tips on how to prepare shade trees for the hurricane threat:

1. Remove all doubtful trees now, before a hurricane does it for you. This may prevent damage to surrounding trees, to your lawn and perhaps to your house.

2. Put stout cabling on long limbs that might snap under stress of hurricane-force winds, or on weak or defective limbs that you do not want to remove outright.

3. Bind together the limbs of large crotches with a hefty brace. In hurricane winds, the branches of a crotch are often blown in opposite directions, splitting the tree down the middle. A good brace may easily prevent this.

4. Prune trees with too dense crowns, or whose limbs hang dangerously over houses, drives and walks. Shade trees with thick tops should be given a "hair cut," to thin out branches so the wind can pass through

instead of bowling them over.

5. Do these things now, or you may not have shade trees when the hurricanes hit next year.

If your trees ride out this season's hurricanes safely, there are two things you can best do next year to insure against later storm damage:

Do necessary pruning before the spring growing season starts. Trees pruned in spring heal better and faster. The growing strength of the trees is redirected from the weak to the strong branches. This makes the trees just that much stouter against storm winds.

Give your trees good general care, watering them well and feeding them with nutrients to promote deep root growth and sound wood.

If a shade tree is blown over, can it be set back up and survive? There is no hard and fast answer.

In general, trees with a trunk no stouter than an arm have a chance to pull through. Larger trees usually have their roots damaged when they overturn and, even though they may last through the year, their weakened root system makes them easy prey for the next year's storm winds.

Science News Letter, August 13, 1955



YOU RADIATE—This girl is truly radiant. Like all living things she contains radioactive substances. The machine, exhibited at Los Alamos Scientific Laboratory's "Open House," was developed there especially for counting the radiation of human bodies. Robert L. Schuch is preparing to "read" Mrs. Julie Wellnitz.

• RADIO

Saturday, August 20, 1955, 5:00-5:15 p.m. EDT
"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Report from the International Conference on the Peaceful Uses of Atomic Energy in Geneva.

CHEMISTRY

New Technique Detects Small Amounts of Metal

► HOW TO extract a very small amount of metal from a very dilute solution, for example the iron, zinc and manganese from a half-cup of maple syrup in a quart of water, has been found by two scientists at General Electric Research Laboratory, Schenectady, N.Y.

By using ion exchange resins similar to those in water softening apparatus but made into the form of a thin film, Drs. W. T. Grubb and P. D. Zemaný located by X-ray spectrography of the resin's surface all the minute amount of metal compounds they had injected into a test solution. The solution had been stirred for several hours in a dish containing the thin resin film.

Metal from the test solution adhered to the film, where it was identified and measured using the X-ray method. The new method extends this kind of X-ray examination "into new areas beyond the range of previous methods," the scientists report in *Nature* (July 30).

Science News Letter, August 13, 1955

CHEMISTRY

Insight Into Fats From Synthesis of Old Drug

► SYNTHESIS of chaulmoogric acid, formerly the most common drug used for treatment of Hansen's disease (leprosy), is announced by Drs. Kurt Mislow and I. V. Steinberg of New York University in the *Journal of the American Chemical Society* (July 20).

Chief importance of the synthesis, Dr. Mislow points out, is the insight it gives into the molecular structure of fats.

Chaulmoogric acid has been replaced in leprosy treatment by synthetic drugs of the sulfone family. It is derived from the oil from seeds of a tropical Asian tree.

Of all seed fat acids chaulmoogric is unique in having a ring-like, unsymmetrical structure. Its two forms (stereoisomers) are the same when represented in a projection formula, but different, structurally, in space. Like hands, one is the mirror image of the other, but the two are different when viewed in three dimensions.

Only one of these forms, the "right handed," occurs in nature. Dr. Mislow reported that, besides synthesizing the natural form, the researchers determined its spatial arrangement and thus, automatically, that of the mirror image.

Science News Letter, August 13, 1955