

BOTANY

Yule Tree Identification

► THE MEN and women serving overseas in our armed forces may find themselves singing around some quite strange trees, come Christmas Eve. Some of them will be recognizable enough as conifers, relatives to pines and spruces and firs; others will be exotic growths from the jungle—evergreens, true enough, but with broad, flat leaves like the magnolias and bays of our own Southeast.

Most used here at home, probably, are spruces; most prized, when obtainable, are balsam firs. But little pine trees, of a dozen or more species, enter the picture to a considerable extent, as well as red cedar, arborvitae, hemlock and a number of evergreens of more local distribution. In the Northwest, Douglas fir is a favorite Christmas-tree species; it is also beginning to be shipped eastward in considerable quantities.

So many and varied are the species in the small forests that annually invade our cities at Yuletide that many persons of no botanical pretensions give up trying to identify their Christmas trees as

a job too tough for them. It isn't, necessarily: you can tell what kind of tree you are getting by following a few simple guides.

To begin with, if the leaves (or needles) are more than an inch long, and are borne two or more in a cluster, it is some kind of a pine. Most pines sold as Christmas trees belong to the yellow-pine group; needles are normally in twos, though often you will find them in threes and occasionally in fours. Evergreens with five needles to a cluster are white pines; but white pines are seldom used for Christmas trees.

If the needles are relatively short, and each is attached to the stem singly, your tree is likely to be one of three kinds: spruce, balsam fir or Douglas fir. The three are not difficult to tell apart.

Spruce needles are quite stiff and sharp-pointed, and they stand out around the twig in all directions, so that if you grab hold of it you get a prickly handful, like a miniature porcupine. If you cut a needle in two with a sharp knife, you get a square cross-section. Also, each needle is mounted on a kind of tiny hump on the bark of the twig.

Balsam fir needles are their opposites in almost every way. They are blunt-pointed, soft and curved; their cross-section is elliptical, and they do not prickle your palm if you grab them. They grow directly out of smooth bark. Often the trunk and branches are sticky with oozing resin—the "balsam" for which the tree is named.

Douglas fir is not really a fir; although it is also called Douglas spruce it is not a spruce, either. Despite the fact that it is one of the noblest of our trees, it has no proper name of its own—it is a kind of botanical orphan.

In appearance it is intermediate between spruce and fir. Its needles are blunt-ended, but are not so heavy as those of the balsam fir.

If your Christmas tree has cones on it (as sometimes happens even with small trees) they will make identification surer. Spruce cones always hang down; fir cones always stand up, like thick little candles. This is an invariable rule.

Douglas fir has down-hanging cones, like spruce, but they are absolutely unique among all evergreens in one thing. Between each pair of scales projects a curious, three-pointed tongue-like appendage.

Hemlocks are also sold as Christmas trees to some extent, though they are not much good because of the readiness with which they shed their leaves. Their leaves are very short, soft, blunt-tipped; they project from the twigs in a horizontal two-ranked arrangement. The cones are very small and thin-scaled.

Red cedar (which is really no cedar at all but a juniper) has short, fine, needle-tipped leaves completely covering the twigs. The fruits are not cones but bluish-skinned berries.

Hardest put to find a proper Christmas tree will be troops holding down low-lying Pacific atolls where only coconut trees grow. You can't make a coconut palm look like a spruce—the shape just isn't right. But probably the Engineers and their seagoing brethren the Seabees (who can do anything) will manage to rig up acceptable synthetic Christmas trees out of such unpromising materials as old crates, empty oil drums or discarded ammunition cases. You can't stop Yank ingenuity, whether it's set upon winning a fight or having a feast.

Science News Letter, December 16, 1944

Syria and Lebanon in 1943 produced nearly 1,500,000 pounds of *silk cocoons*.



AIRLINE USES L&N TEST SET IN VELDT AND JUNGLE

To test telephone overland lines in Africa and to check radio equipment on the trans-African airline, Pan American Airways find L&N test sets "very valuable".

One of the instruments widely used by PAA in both power and communication lines is our Type S Test Set.

This is a rugged Wheatstone bridge, conveniently portable; equally useful in shop and field for testing insulation, measuring resistance or locating faults in communication circuits. Its range extends to 9999 ohms in steps of 1 ohm. Its price is \$90.

For further details, see Catalog E-53-400 (1).

LEEDS & NORTHROP COMPANY, 4977 STENTON AVE., PHILA 44, PA.
LEEDS & NORTHROP
MANUFACTURING INSTRUMENTS TELETYPE SERVICE AUTOMATIC CONTROLS HEAT-TREATING FURNACES
 Jr. Ad. E53-400 (1)

Send now for the **NEW**

PICTUROL CATALOG

PICTUROL CATALOG

LISTING MANY NEW SLIDEFILMS on SCIENTIFIC SUBJECTS

The new, greatly enlarged S. V. E. Picturol Catalog is just what you need in planning visualizations of Biology, Botany, Chemistry, Physics and other Science lessons. It is sent free. Mail coupon below.

SOCIETY FOR VISUAL EDUCATION, INC.
 Dept. 125NL, 100 E. Ohio St., Chicago 11, Ill.
 Please send your new SVE Catalog listing many new slidefilms on scientific subjects.

NAME _____
 ORGANIZATION _____
 STREET _____
 CITY _____ STATE _____