

The Care Of Araucaria In The Philippines

By DOMINGO JACALNE
of the Division of Forest Investigation, Laguna

In Manila and nearby provinces a lawn is not complete without the *Araucaria*, an exotic tree, beautiful for its majestic, symmetrical cone form and evergreen crown. Its branches, with the leaves spirally arranged, regularly whorl around the stem. This Norfolk Island Pine (*Araucaria excelsa*, R. Br.) was first introduced into the Philippines sometime in 1934. It is a native species of Norfolk Island (where it derived its name) and some Pacific Islands. It is a valuable timber tree in its native countries, but here it is one of the aristocrats of ornamental trees. It excels others as a Christmas tree.

Since its introduction here, much is not known about the tree, its care, and manner of reproduction and development. It is the purpose of this article to shed some light on the successful care of this valuable ornamental tree for the benefit of the public, especially the gardeners and landscape artists.

You will perhaps wonder to know that the tree you now have in your yard or you see in one of the beautiful lawns in Manila and suburbs, came from Hawaii, not as a seed but a tiny seedling. In that island where it thrives in a natural state, bare-rooted 5 centimeters to 10 centimeters seedlings are packed in Sphagnum moss and then brought to the Philippines either by boat or plane. Upon its arrival, the plants undergo a long, delicate and tedious process of acclimatization in the nurseries of the Bureau of Forestry, College, Laguna.

Immediately after arrival, each seedling is potted in tin cans filled with a mixture of top soil and leaf mold in the proportion of 4 to 1. These plants are later kept under the shade for as long as four months and water-

ing is done as often as is necessary to keep the soil from drying. It has been observed that the plants attain only an average of two centimeters growth in these four months of potted condition. At about the end of the period, the plants with the pots are set in transplant beds where they are exposed to the sunlight during part of the day. In one year of growth in these beds the plants attain only an average of twenty centimeters in height. At this time, the tin cans are removed around the roots of the plants and set again in other transplant beds, this time receiving full sunlight during most part of the day. One month after transplanting, a teaspoonful of ammonium phosphate is added to each plant to hasten its growth. This is repeated once in every two months during a period of eight months and in two years under this conditions, the plants have been found to attain a total height of from 75 centimeters to 1.30 meters. Thus, in an expanse of about 3½ years, the plant will have attained barely a meter in height. After this period, however, the plants begin to grow at a more rapid rate.

On the basis of height of the seedlings the nursery men of the Bureau of Forestry sell these plants according to the following rates:

- ₱ 1.00—below 10 cm. high
- 2.00—11 cm.—19 cm. high
- 5.00—20 cm.—50 cm. high
- 10.00—51 cm.—100 cm. high
- 10.00 more for every additional height of one meter.

There are only two nurseries in the Philippines where these plants are reared and sold to interested persons and parties, that in Pac-

dal Forest Nursery, Baguio City and Bureau of Forestry Nursery in College, Laguna. Of greater interest to the public is the care of the plants after they are removed from the nurseries.

The subsequent care and manner of protection depends on a great deal on the size and conditions of the plants when purchased. Usually, the plants are sold out either in tin cans or in earthen pots and in some instances taller plants are given out in balled condition, that is, the plants are lifted with a ball of earth around the roots of the plants. The former is preferred by most buyers, however, because of the facility of handling and transportation. In this instance, the care of the potted plants is very much along the protection and care given in the nurseries, until they are big enough for setting in permanent places in the lawns or sidewalks. The plants are reset in bigger containers as gasoline, petroleum cans or water buckets. Plants as tall as two to 2½ meters can stay in such containers. At such heights they can easily be moved in the lawn or in the house as Christmas trees or for decorations along the sidewalks of the yard.

FOOD PRODUCTION . . .

(Continued from page 13)

industries give employment to about 100,000 of our people. With their families and dependents no less than half a million are exclusively dependent on the forest for their livelihood. Forest destruction will thus endanger our welfare and accelerate degeneration and misery of the people and of the nation. It will entail tremendous expenses in reforestation, which our government is not very well in the position to meet.

Knowing the many benefits derived from our forest and the evil effects of forest destruction, it may be reiterated that food production does not mean forest dissipation. The Government urges us to plow, plant and produce in agricultural lands. It does not autho-

In the case of balled plants they are either replanted in bigger pots as the potted plants are set permanently in places where desired. In planting, a hole sufficient to contain the ball of earth should be made. An additional top soil is added all around and below the root system to provide more plant nutrients necessary in the process of acclimatization and further growth. These plants are shaded for about a week to prevent sudden exposure to sunlight in the meantime that the plant is reconditioning itself to the new site. Observations in the nurseries and plantation show that the plant is fairly intolerant, that is, they do not thrive well under shade, so that once the plants are fully recovered, they must be set or placed in places where they receive full sunlight.

Care must be taken not to cut or injure the terminal bud as the plant may not be capable of producing another shoot. This plant do not reproduce by leaf cutting. Marcotting to reduce the size of grown-up seedlings is possible but results of experiments in the nursery are not fairly satisfactory.

Author's Note: This article was made possible through the help of Asst. Forester Francisco Rola who furnished the data and other valuable information.

size nor sanction the destruction of our forest. To sacrifice our forest by illegal kaingin making is tantamount to gambling our future, or killing the goose that lays the golden egg. Let us endeavor, therefore, not to allow the sad history of forest destruction in other nations repeat itself in ours, lest we may repent when the forest is gone with all its benefits. It is a constitutional mandate to all public officials and civic duty of every conscientious citizen to help conserve our forest. Remember, as the late President Theodore Roosevelt had once wisely said, that "**A PEOPLE WITHOUT CHILDREN WILL FACE A HOPELESS FUTURE: A NATION WITHOUT TREES IS ALMOST AS HOPELESS.**" Let us, therefore, conserve and save our forest and our forest will surely save us and our nation.