very important since this may range from less than 10% to more than 25% of the whole fruit weight, yet when a variety is of exceptional productivity it is hard to give too much weight to this factor. Heaviness of bearing is the principle criterion in judging worth, especially if the season of maturity is during November, December and January. The public has indicated its preference for a green-skinned avocado, and so the varieties with red or purple color at maturity have dropped out of sight. Other things being equal, disease resistance is a desirable quality, but as Lula illustrates, the lack of this quality does not handicap a variety of outstanding productiveness. Hardiness to cold is also a characteristic of some importance, since in a year when Florida experiences a freeze, the crop on trees of varieties with exceptional cold hardiness has increased value.

Nut Varieties For New York State

By L. H. MacDaniels,
Cornell University

Success in growing nut trees in New York State depends just as much upon the right choice of varieties as does the growing of any other fruit. In this State the all important climatic factors of low temperature, length of growing season and total summer heat are not favorable for most kinds of nut trees except in favored locations. These are confined mostly to Western New York along the shores of the Great Lakes and to the Finger Lakes and the Lower Hudson Valley, particularly Long Island.

Pecans

Most kinds of nut trees that are adapted to growing in the North are native in the range extending much further South. Some, as for example the pecan, cannot be grown in New York State at all. Even the most northern varieties will not fill satisfactorily anywhere in New York State except possibly on Long Island.

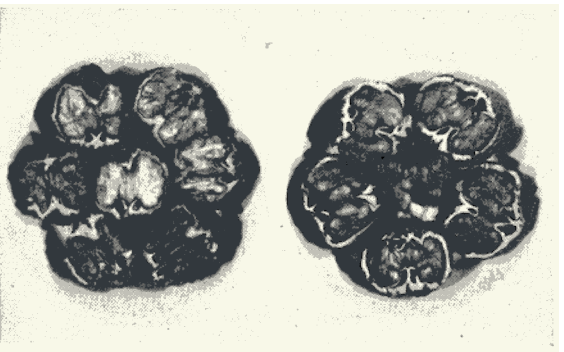
Persian or English Walnut

The Persian or English walnut is severely damaged by low winter temperatures, most sorts, particularly those grown on the West Coast, being killed or severely injured by temperatures of —20° Fahrenheit. Some of these succeed on Long Island. Elsewhere the Carpathian strain is promising though at the present time it has not been tested sufficiently to make their recommendation expedient.

Eastern Black Walnut

The Eastern black walnut grows readily in many parts of the State. Many of the local seedlings mature nuts well and are used locally. Of the grafted varieties at Ithaca, the Thomas has been by far the most prolific and has produced well-filled nuts more often than have most other sorts. Other kinds that have filled fairly well are the Stambaugh and two varieties with local origin, the Snyder and the Cornell.

In connection with any mention of varieties, it should be pointed out that none have been widely tested in various parts of the State and most of the opinions ventured herewith are based on information gained at Ithaca, New York. The problem of nut trees is not so much one of hardiness but of having varieties that fill the nuts satisfactorily.



Black Walnuts: Ohio (left) and Thomas (right). These are among the best varieties for northeastern regions. Thomas has been the most successful at Ithaca, N. Y.

Hickory Nuts

Through most of New York State there are local sorts of hickory which succeed. Of the budded sorts, a variety known as Kentucky has done well at Ithaca. Another hickory originating in New York is the Davis. This nut has filled satisfactorily at Ithaca. The Barnes, is a fruitful sort but does not fill well enough to be of value. A number of varieties of northern origin such as Fox, Glover, Goheen, Nielsen and Weschcke should succeed in New York. These varieties are not yet readily available from nurseries.

Chestnuts

Native chestnuts are practically gone. The most promising substitutes are the Chinese sorts. These are about as hardy as the peach and can be grown where peaches are successful. At the present time there seems to be stock-scion relationships which are not well understood so that planting high-grade strains of seedlings such as the Hemming strain from Maryland seems to be more advantageous than planting grafted trees.

Hazelnuts

Growing of hazelnuts has been fairly satisfactory. The European sorts, Barcelona, Cosford and Italian Red, are

among the best. Hardier than these and more satisfactory are hybrids between *Corylus americana* and C. *Avellana*. Some of these, known as the Jones Hybrids, are worth trying. Bixby and Buchanan are two kinds coming from this cross. The Geneva Experiment Station has raised many thousands of seedlings and have a few clones which they are recommending for trial. Japanese heartnuts may be worth trying but as yet the varieties have not been sufficiently well tested to make recommendations.

The whole matter of varieties for northern nut growing is in the testing stage, and, at the present time, anyone who plants nut trees is, to a certain extent, an experimenter.

Shagbark hickory — Kentucky variety, has matured well-filled nuts at Ithaca, N. Y.

Peach Varieties in Central Washington

By J. H. Schultz

Assistant Horticulturist
Washington Agricultural Experiment Stations
Irrigation Branch Exp. Sta., Prosser, Wash.

In Washington peaches are grown commercially in two basically different environments, namely the semi-arid Central section and humid Western region. The largest percentage of the state's peach crop is produced in Central Washington, and this article will deal only with this important area.

Practically all peaches in the central part of the state are grown under irrigation. The altitude varies from about 300 to 2000 feet above sea level. In some cases a difference of 1500 feet in elevation occurs within the distance of a few miles. In general, differences in ripening season of peaches in Central Washington are more closely related to altitude than to latitude. This has an important bearing on the variety situation since it enables producers in a limited area to spread the ripening season over a longer period with a given variety.

Production Increasing Steadily

Peach production in Washington has increased quite consistently since 1939. The average production for the five-year period 1941 to 1945 was considerably over two million bushels per year. With newly developing irrigation projects near established peach sections, there is every