

nurserymen; Mr. L. A. Thompson, United States Horticultural Field Station, Fresno, California; or Dr. C. O. Hesse, California Agricultural Experi-

ment Station, Davis, California should be consulted.—(From *U. S. D. A. and California Station release notice, May 16, 1950.*)



## Danish Fruit Production

By A. Stauning,

Secretary, The Danish Horticultural Council  
Slightly condensed from POST ROAD (Kentville,  
Nova Scotia) 4:12:5, 1949

Danish fruit growing, according to Mr. Stauning, "has made great strides during the past 20 years. It now not only meets the demands of the home market for apples, pears, plums, cherries, and soft fruits, but also provides considerable exports."

The number of fruit trees in 1949 is about thirteen million, of which nine million are apples, two million pears, two million cherries and plums. Half

the trees are in commercial orchards.

After this introduction the author confines himself to a discussion of apples.

The progress made recently is due in part to the economic conditions in the early 1930's, which forced Denmark to aim at self-sufficiency, and in part to the valuable work of plant pathologists, physiologists, and other scientists, which helped growers to ob-

tain a relatively certain and constant production. Doubts have been felt about the suitability of the Danish climate for profitable commercial fruit growing, as the humidity promoted fungus diseases and frequent winds prevented the fruit from reaching full maturity. "Scabbed and blotched apples vanished with the appearance of effective fungicides, and the planting of sheltering hedges stopped windfalls." In time, the Danish growers also solved the actual problems of growing; the right feeding, and the choice of suitable stock and varieties.

Apples are grown in Denmark in 7,000 to 8,000 orchards with between 4,000,000 and 5,000,000 trees. Orchards are usually laid out on the "American" pattern, with low trees in a pure stand without intermediate planting, and laid out quadrilaterally with a view to the clearing of every other tree, or one in three, as the orchard matures. Although in the 1930's the stock was frequently Malling IV, the more vigorous growing types, Malling XII, XIII, and especially XVI or seedlings, are now the ones principally used. Soil under the trees is kept clear until July but after then medick or another plant is often sown for plowing in. The care given to health is very effective and spraying is done at intervals of 2 to 3 weeks from bud-burst until nearly harvesting, in accordance with spraying plans prepared by plant pathologists.

Danish fruit farming is said to be

more intensive than fruit growing in most other countries. "Cultivation with tall trees and livestock grazing is unknown. The best cultural conditions are present to insure a constant annual harvest, but despite the extensive planting of sheltering hedges violent autumn gales sometimes cause heavy losses and a fluctuating yield."

In 1948-49, apple exports amounted to 33,500 metric tons valued at 18,000,000 kroner. The chief customers for a number of years have been Finland and Sweden, but in 1948 a considerable quantity was supplied to Great Britain, and Western Germany has again become a market for cheap apples, as before the war. Other buyers are Belgium, Norway, Czechoslovakia, and Iceland. Although Denmark can deliver substantial quantities of finest-quality apples, and prefers these, the foreign demand in the 1948-49 season was mainly for the cheaper varieties and poorer qualities, for which reason the bulk of the apples exported did not reflect the relatively high standard of Danish fruit growing.

A Danish apple when fully matured is said to be "juicy, crisp, thin-skinned, and choicely flavored, even when it is a variety that in more southerly countries becomes dry and thick-skinned. The color of Danish apples may not always be so vivid, and so they are often less conspicuous than more southerly apples; but to anyone who has tasted them this is of minor importance."

The main exporting season for Danish apples is between August 1 and April 1, most Danish varieties being then ready for use. The main variety grown in Denmark is Cox's Orange, nearly 25% of all trees in commercial orchards being of this variety. Next in order, of importance are Grasten (Gravenstein), 9%, Pederstrup, Pigeon, and Belle de Boskoop, each 7-8%, and Bramley's Seedling, nearly 5%.

The export season opens in August with Transparante Blanche [probably the Yellow Transparent of America] and Lord Suffield, the Grasten (Gravenstein) following next. It is claimed that the "Gravensteins from Denmark", attain particularly good maturity, sweetness and flavor. This variety is in great demand in Scandinavia. Of autumn apples, Pederstrup, also a Danish variety, is worth mention as a coarse, good keeping cooking apple of attractive appearance, that is usually very cheap and so is popular in a number of countries. Other autumn varieties are Sonderskov (a Danish variety), Belle Fleur de France, and a series of other cooking apples of excellent quality.

#### Some British, American and other Foreign Varieties Grown

"In the winter season Cox's Orange is the most important dessert apple for export; but the value and quality of this variety are too well known [in Europe and Nova Scotia] to require further comment. There is, however,

a range of varieties of Danish origin that is also worth attention, including Ingrid Marie, a red apple of medium size and excellent quality, the apple which commanded the highest prices in the Danish market in the 1948-49 season."

Another Danish variety is Filippa, a yellow apple with a reddish cheek and a fine white, juicy, and well flavored flesh. Outstanding cooking apples for storage are Belle de Boskoop, Bramley's Seedling, Boiken, and Dumelow, all well known in the international trade. Apples of specially good keeping quality, suitable for export during the early spring months, are Jonathan, Golden Delicious, and Laxton's Superb, all of which ripen well in Denmark, and the Danish varieties, Bodil Neergard, a smallish, yellow, very sweet and juicy apple, and Tonnes, a medium sized, yellowish-red apple, with rather dry but well flavored flesh.

Besides the varieties mentioned the Danish trade can supply a number of other export apples of good flavor.

As in America, the Danish apples are sent to market in a variety of packages, depending upon the market and the grade of fruit. In the Scandinavian countries customers have usually preferred to have their apples delivered loosely packed in boxes holding 35-45 lbs. To prevent bruising, the boxes are lined on all sides with corrugated cardboard, with wood wool

*(Continued on page 54)*

## Parker Pear in Western Nebraska

Mrs. Flora Sandoz Kicken, who operates the "Old Jules" orchard in western Nebraska, reports that the 1948 crop of Parker pears could not have been any larger or better. Many were 12 inches and over in circumference. The trees are very hardy there.—*Minnesota Horticulturist*.

**EDITOR'S NOTE:** *W. R. Leslie of Manitoba reports that the Parker and Mendel pears have one weakness—fireblight hits them hard every few years.—J. C. McD.*

## Sweet Cherries

[CONTINUED]

*We find one paragraph got crowded out of the New York article on sweet cherries in our Spring issue. Here it is:*

LYONS is an old French cherry. The fruit is large, purplish red, heart-shaped, and with a tender, firm flesh. It is a week ahead of Black Tartarian. The tree is moderately productive and vigorous but growth is straggling and inclined to weep. Lyons is a desirable variety to fill in between Early Rivers and Black Tartarian. In the Hudson River Valley it is noted as a good, large, early cherry, but some years it is subject to cracking.

## Danish Fruit Production

(Continued from page 45)

under the lids. Other countries prefer "Canadian packing", and the coarse and very cheap apples for Germany are shipped in bulk in railway cars—and yet arrive in good condition, according to Mr. Stauning. It is expected that in the future a larger proportion of the apples—especially those of the higher grades—will be "Canadian packed."

The article concludes with discussion of the requirements for grading apples which are to be exported. Under the international rules the Danish grades are as follows:

"Extra quality" is the designation of fruit that has fully matured and is without blemish of any kind, either in shape, color or degree of ripening.

"First quality" is like "Extra", though insignificant blemishes are permissible.

"Second quality" is also like "Extra", but besides insignificant blemishes may have minor blotches.

"Third quality", to be exported only in exceptional cases, must be in every way useful.

