has attained national and international acclaim as a plant breeder of commercially important small fruits. In addition, he has made significant contributions in the areas of fruit-bud formation of small fruits, the cultural practices of growing small fruits in the Northwest, and disease investigations. He developed the red stele *(Phytophthora fragaraie)* bench screening method for handling strawberry progenies in quantity, and provided breeding material, selections, and new varieties with resistance to this root disease.

Mr. Waldo was born in Drayton, North Dakota. He received his B.S. degree in Oregon and M.S. degree in Michigan. After spending 6 years as pomologist with the Bureau of Plant Industry at Beltsville, Maryland, he became Research Horticulturist, Small Fruits Breeding, ARS-USDA, Corvallis, Oregon. Practically all of his research and plant breeding work was done at this location.

Mr. Waldo's new berry variety introductions include 5 strawberries, 3 red raspberries, and 6 blackberries. These introductions have assumed major importance in the berry growing industry of the Pacific coast states, and produce crops with an annual value of nearly 10 million dollars. Several varieties have also been tested and named in Chile.

Two New Nectarines and a Peach Introduced by the U. S. Department of Agriculture

JOHN H. WEINBERGER*

The U. S. Department of Agriculture recently announced the naming and release of the 'Flavortop' and 'Fantasia' nectarines and the 'Desertgold' peach. Each was developed at the U.S. Horticultural Field Station, Fresno, California. The nectarines have been grown and tested principally in the nectarine-growing area in the San Joaquin Valley of California. The 'Desertgold' peach has been tested in the Coachella Valley of California and in Florida. A hurricane eliminated a test planting of 'Desertgold' in the Rio Grande Valley.

Flavortop Nectarine

'Flavortop' resulted from an open-pollinated seed of 'Fairtime' peach. The male parent probably was a sister seedling of 'Independence' in an adjacent row. The seedling fruited first in 1964 and later was tested as selection F58-80 in grower cooperator trials. Commercial shipments of fruit have received favorable market acceptance.

'Flavortop' ripens at Fresno the second week of July, just after 'Independence' nectarine and with the regular 'Sun Grand' cultivar. The fruits are large, ovate, and freestone. The flesh is yellow, firm, smooth-textured, and of excellent quality. The fruits are highly blushed over an attractive undercolor.

Trees of 'Flavortop' are vigorous and productive. The blossoms are large-petaled and self-pollinating. Leaf glands are reniform. The time of bloom is early mid-season, which indicates a moderate chilling requirement to break the rest period of buds.

'Flavortop' has larger fruit and better quality than principal competing nectarines in its season of ripening. The chief criticism of the nectarine

*Research Horticulturist, Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture, Fresno, California.

last season was that the fruit was too large. This is unusual, because early nectarines are criticized most often for their small size. The adaptation of 'Flavortop' to humid areas, where nectarines are not commonly grown, has not been determined.

Fantasia Nectarine

'Fantasia' resulted from a cross-pollination of 'Gold King' nectarine by pollen of a seedling of 'Red King' nectarine in 1961. The seedling fruited first in 1964, and was tested as selection F58-40 in grower-cooperator trials. Market acceptance of commercial shipments has been good.

'Fantasia' ripens just after 'Flavortop' nectarine, and slightly earlier than 'Red Grand' nectarine. The fruit is large, ovate, and freestone. The flesh is yellow, firm, smooth-textured, and of good quality. A bright red color on 1/3 to 2/3 of the fruit surface overlays a bright yellow undercolor.

Trees of 'Fantasia' are vigorous and productive. The blossoms are large-petaled, and self pollinating. Leaf glands are reniform. The cultivar blossoms moderately early, which indicates a relatively short chilling requirement for its buds.

'Fantasia' has an advantage over competing nectarines in its season of ripening because the latter are clingstones. Also, the fruit is larger than 'Red Grand,' and more attractive than 'Le Grand.' 'Fantasia' has not been tested in humid areas.

Desertgold Peach

The 'Desertgold' peach resulted from a 1958 cross-pollination between two unnamed peach selections having low chilling requirements. Its ancestry is [(Newday x Southland) x (Southland x Hawaiian)] x [(Sunhigh x Southland) x (Southland x Hawaiian)]. All these ancestors have low chilling requirements, particularly 'Hawaiian.' The latter was a seedling rootstock peach from Hawaii, which regularly started blossoming before Christmas at Fort Valley, Georgia, where the initial crosses were made.

'Desert gold' was bred for low chilling requirement, for regions having warm winters. At Fresno, it blossoms about with 'Flordasun' and 'Early Amber,' which indicates it has a chilling requirement similar to that of these 350-400 hour cultivars. It is adapted to areas where 'Early Amber' grows well. It has been productive for several seasons at Indio in the Coachella Valley where, thus far, commercial peach production has not been practical. The Valley is the center of date production in the United States, and is often referred to as "the desert." Hence the name 'Desertgold' was selected.

'Desertgold' ripens at Fresno in early June' a few days ahead of 'Early Amber' and 'Cardinal.' At Indio, 'Desertgold' ripens in late April or early May, a week or more ahead of the earliest 'Springtime' fruits from colder production areas.

'Desertgold' fruits are medium-sized and round, and tend to cling at the pit. The flesh is yellow, moderately firm, and of good quality. The exterior is an attractive yellow with a red blush. Fruits most nearly resemble, but are superior to, those of 'Rochon.' The fruits are firmer and more attractive than 'Early Amber.' At Gainesville, Florida, 'Desertgold' fruit is reported to lack size, but is otherwise acceptable.

Trees of 'Desertgold' are moderately vigorous and productive. The blossoms are small-petaled and self-pollinating. Leaf glands are reniform.

'Desertgold' is adapted only to areas having warm winters. In colder areas the trees blossom too early, and are very subject to frost damage. Also, the fruit is neither as firm nor as attractive as the competing 'Cardinal' in a colder climate.