2391

NEW PEACH PRODUCTS AND THEIR POTENTIAL FOR INCREASING PEACH CONSUMPTION

by

CLAUDE H. HILLS

Head, Fruit Products Section
Eastern Utilization Research and Development
Division, U.S.D.A., Philadelphia, Pa.

Virginia produces about 1.3 million bushels of peaches each year — about 95% freestones and the rest clingstones. The latter are grown in a localized area near Winchester and are used entirely for processing. Freestones are widely distributed throughout the fruit growing area of the state and are used almost entirely for fresh market. Probably less than 5% of the freestone crop is processed. The peach industry in Virginia and the other Eastern states faces the problem of a declining per capita consumption of fresh peaches. The long range trend in food patterns in America is toward more processed foods and away from fresh items.

Processed foods have many advantages in our industrialized society. They provide convenience, uniformity, and high quality. Processed fruits are easier to store, ship, and distribute than the fresh. They are available throughout the year and are often much cheaper.

A processing industry has several advantages for the grower too. It can handle seasonal fluctuations in production which often plague the peach industry. Many fresh market culls, deficient in size or appearance, can be utilized, as is now done in the apple industry. By providing new food items, non-competitive with the fresh, processing increases the over-all demand for peaches.

Improvements in Present Products

Research at various State and Federal research laboratories has improved some of the traditional products made from peaches, such as canned, frozen, or dried slices. A few years ago, the USDA Western Regional Research Laboratory at Albany, California developed dehydro-canned and dehydro-frozen peach slices. These products, which have only one-half the weight of the original slices, have improved texture on rehydration. They are more economical to package, store, and ship than the conventional single strength canned or frozen slices.

Dried peaches have been improved by several new techniques. A dry-blanch-dry process that steam blanches the partly dried slices prior to the final drying stage, gives a product with much better shelf life than sun-dried or kiln-dried peaches. Partial dehydration may be accomplished by reverse osmosis, using sugar rather than heat to remove water, and thus retains most of the fresh flavor. Peaches dried to one-half their original weight in this manner could be frozen and used as dehydro-frozen slices.

Baby Food Puree: Nearly one million bushels of peaches are used each year in baby foods and junior foods. Most of this is made from clings. Only one company in the East uses freestone peaches exclusively for baby foods, while a few others blend small quantities of freestones with clings. Studies at the New York Agricultural Experiment Station (Geneva) show that the color and consistency of freestone peach puree can be improved by harvesting the fruit 3 to 7 days before fully ripe and then ripening it off-the-tree. By the proper selection of varieties it is possible to make an acceptable puree from freestone peaches.

New Peach Products

Freeze-Dried Slices: Freeze-dried peach slices is a new product suitable for use in breakfast cereal. One of the large cereal manufacturers has just recently put this product into nationwide distribution. Other cereal manufacturers are planning to use dried pellets or flakes made from peaches. It is estimated that these new cereal products will require more than 200,000 bushels of peaches per year.

Peach Essence: The volatile flavor constituents of peaches can be captured and concentrated by an "essence recovery" process developed at the USDA Eastern Regional Research Laboratory in Philadelphia. This essence can be added back to various peach products to improve the flavor. Even the aroma from peach preserves, which is normally lost during the cooking process, can be captured and added back to the final product to intensify the flavor.

Peach Drinks: Fruit drinks are gaining in popularity in this country. Peaches have an attractive color and distinctive flavor that recommend them for this use. There are several new peach drinks that have been developed in recent years. A few years ago the Eastern Regional Laboratory developed a series of full-flavored (essence-fortified) frozen peach concentrates. One was a seven-fold, unsweetened puree suitable for enhancing the flavor of peach ice cream. The other was a four-fold sweetened nectar for beverage use.

Recently the Georgia Station produced and market-tested a single strength peach nectar to be served as a breakfast drink or mixed with citrus juices to make a peach punch. Although there is a lot of competition in the fruit drink field, a really good product could develop a market utilizing several hundred thousand bushels of fruit.

Chilled Peach Slices: Another new product that could develop into a

large scale market is chilled fresh peach slices. The Eastern Laboratory in 1959 developed a method of preserving fresh peach slices by a combination of potassium sorbate and mild heat. The shelf life of this product is several weeks, which would be adequate for wide-scale distribution. The Clemson Station has recently market-tested a fresh peach salad, preserved with benzoate, citric acid, sulfite, and vitamin C. This product has a shelf life of 14 weeks. Such products can capitalize on the popularity of citrus salad and develop into outlets for thousands of bushels of peaches per year.

New Peach Varieties

As new processed peach products are developed, there will be more and more demand for new freestone peach varieties better suited for processing. The ideal, as in the case of apples, would be a dual-purpose variety suitable for both fresh market and processing. Several Agricultural Stations, including Rutgers, Georgia, and Virginia, are breeding new peach varieties to fill this need.

The Eastern freestone peach industry must plan in terms of both fresh market and processing. A sizeable processing industry, utilizing at least 25% of the crop would not only stabilize the fresh market, but it would increase the total demand for peaches and provide a basis for an orderly and profitable expansion of peach production in the future.