Everything's Coming Up Apples

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Tree Top's facility in Wenatchee, Wash., uses fresh apples and green technologies to supply the world's largest food companies with quality ingredients.

Tree Top began processing apple juice over fifty years ago on "Produce Row" in Selah, Washington. Since its beginnings in 1960, the grower-owned cooperative has grown to over 1,300 owners from around Washington, Idaho and Oregon and is now the biggest producer of dried apple products to the food manufacturing market. But its beginnings are much more humble.

The company began by producing only two products: apple juice and apple cider. A few years later, it would add frozen concentrates. It would soon incorporate dried apple products into its line, and, as demand from owners looking for an outlet for their raw pears grew, the company began offering pear products in 1976.

Along the way, the co-op has acquired various fruit production companies and has built and expanded several facilities along the way. The company now boasts seven processing locations scattered across the Pacific Northwest.

Tree Top's Wenatchee, Washington facility is considered one of Tree Top's "Northern plants" along with three other Washington facilities — in Sela, Prosser

and Ross. With Tree Top's acquisition of Sobroso came the facility in Woodburn, Oregon, which, along with existing facilities in Medford, Oregon and Oxnard, California, make up the company's southern presence.

The Wenatchee Way

The Wenatchee plant processes industrial dried and frozen products for sale to other food processors across the country. A large part of the company's business is consumed by preparing dried, dehydrated and frozen apple products for other food manufacturers. These products are typically used as add-ins for finished products like muffins or cereal bars.

The products manufactured in Wenatchee, in addition to the wholesale fruit products processed at other Tree Top facilities — like the Ross facility that produces evaporated products with moisture levels around 25 percent — have helped the company supply food ingredients to 20 of the top 25 food companies in the world.

Though some of the facilities process pears and other fruits, "Wenatchee is 100 percent apples," according to Bill Harvey, the facility's plant manager. All apples are slice, diced and chemically treated to maintain shelf-life, before they are processed. The Wenatchee facility acts as a bulk packaging and consumer goods supplier, as all products leaving the facility go to other manufacturers, like Kroger, General Mills, Quaker Oats and McDonald's pie supplier, Bama Pies.

Wenatchee's dehydrated apple products have reduced moisture levels of between two and 2.5 percent. These dried products are used in cereals for Quaker and General Mills. The frozen products are typically used in finished goods like pies produced by Bama and Costco. The facility's products are even sent around the globe, reaching Australia and the Far East.

Apples All Day

Tree Top markets and sells its juice and applesauce products under its own label in addition to working with several other food manufacturing and grocery companies to produce co-packed and private label products.

Tree Top purchased the Wenatchee plant, a former fruit packaging facility, in 1972. The facility now employees 135 workers and runs a 24/7 operation with continuous sanitation.

While some products call for a blend of different apple varieties — like the "mixed peelable juice" blends that Tree Top manufacturers in its juice processing facilities — many applications require apples to remain segregated from one another due to:

- Specifications in certain processes that require particular size or shape requirements
- Customer requirements stipulating the use of specific apple varieties
- Apple varieties which react differently to drying, peeling or blanching processes and may require different processing techniques to achieve successful processing.

Harvey says, "Red Delicious apples can be difficult to orientate for peeling and dehydrating," so they are used only infrequently at Tree Top's Wenatchee facility — only at the behest of a customer. The apples are used more frequently in juicing applications at the company's other facilities in Selma, Prosser and Medford. Wenatchee processes a variety of other apples, the most common of which include Granny Smith, Fuji, Golden Delicious and Gala.

Before being cleaned and peeled, apples are soaked to loosen any debris that may be on the fruits' surface.

The Apple's Journey

During prime harvesting season, orchard runs come straight from the field for immediate processing. Thirty or more trucks can arrive in a single day, each loaded down with as many as 30 tons of apples. Often, the facility receives more apples than it can successfully process, and any overrun is sent to off-site finished goods refrigerated storage. The controlled atmosphere storage uses a combination of low temperature and adjusted oxygen levels to preserve the apples in a suspended state until the facility has the capacity to process them.

Apples are sent through a heated water bath, which will loosen any stickers or foreign material before the apples are sent through the scrubbers. Skilled hand-pickers are each trained to identify specific flaws in apples so that raw product that does not meet Tree Top standards can be removed from the processing line.

The apples are run through machines that peel and core as many as 120 apples per minute. The plant runs about 350 tons of raw apples per day on its single-pass dehydrated lines and 150–160 tons on its frozen lines.

Cleaned, peeled and cut apples are conveyed through a wash on their toward the fruit dryers.

Before being sent through a dewatering process to remove residual moisture from the surface of the apples, the dried product is run through a sulfite preservative solution to enhance shelf-life. The product is then sent through industrial dryers used to dry and dehydrate apple product. The dryers are fitted with controllable input mechanisms, allowing operators greater control over the flow of apples into the dryers. After the dried apple product leaves the dryers, flavoring or coloring can be added; artificial strawberry and peach are two of the most common flavor additions.

Raw apples meant to become “puffed product” are sent through a different process, which includes a CO_2 chamber that removes oxygen from the fruits’ cells.

The frozen product is sent through a freezing tunnel that takes between eight and ten minutes to bring product from room temperature to frozen, according to Tree Top temperature specifications.

Green Apples

Tree Top has been working to mitigate its environmental impact for decades. In 2008, the company developed its official sustainability process, which sets guidelines for energy use and water consumption in each of its facilities.

Harvey notes, “Sustainability is important here. Even our pallets are sustainable. We can keep track of them so that they can be reused.”

Reusability is an important part of Tree Top’s sustainability initiatives. Not only are the pallets used to transport finished goods around the facilities monitored and reused, but the bins that transport batches of apples to the Wenatchee plant are tracked using software and then returned to the appropriate orchard. Tree Top has also taken steps to reduce packaging and reuse some of the wash water used to clean the apples in its facilities.

As the formal sustainability plan continues to evolve, Tree Top aims to continue its efforts toward producing the greenest apple products it can.

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