



Highlights of the Cornell Pilot Plant

The renovated facility has the perfect combination of established food processing and preservation technologies with new innovative equipment to promote the development and production of healthy, high quality foods.

With a variety of equipment available, the pilot plant grants clientele the ability to make their final food product in the same location, from **starting materials to the final packaged product**. It also provides a unique setting allowing the **comparison of different equipment and technologies** utilizing the same materials to address the final quality and stability (shelf-life) of the food produced and to **determine the best manufacturing process that meets the needs of each particular client**.

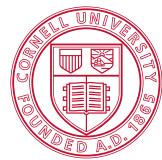
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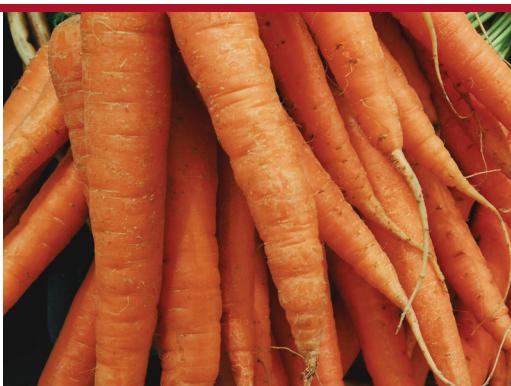
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Cooking and Blanching: Combination oven/steamer, microwave oven.

Cooling/Freezing: Fast cooling and freezing units.

Carbonation/Fermentation Vessels: To carbonate and ferment beverages, along with pressure can filler and seamer.

Dehydration Equipment: Air dryer, freeze dryer, microwave vacuum dryer.

Evaporators: Continuous and batch vacuum concentrators via water evaporation for liquids, sauces, jams, jellies and pastes.

Extractors: To produce purees and to separate peels, seeds, and pits from pulp.

Fillers: For pouches and other containers.

Fruit/Vegetable Preparation Equipment: De-stoner, peeler, dicer, food processor, mills, produce dryer.

High Pressure Homogenizer: To increase the safety of the products and to produce highly stable emulsions.

Homogenizers: To stabilize complex mixtures in liquids and to make emulsions such as salad dressings.

Ingredient Technology: Electro spinner to produce encapsulated ingredients for added functionality or for protection, such as encapsulation of natural colors. May be used to design packaging with new materials.

Juice Press: For small and large batches of fresh juices made from whole fruits and vegetables.

Liquid-Solid Fractionation Units: A decanter and centrifugal separator are used to remove solids from liquids such as separating pulp from juice.

Membrane Separation Systems: Flexible systems that allow the removal of water via reverse or forward osmosis to concentrate juices and extracts, and to clarify liquids using ultrafiltration and microfiltration.

Pulsed Electric Field Units: For non-thermal pasteurization of liquids and for electroporation of solids to allow better extraction of nutrients.

Steam Kettles: For heating and cooking a variety of foods.

Sterilizers: Commercial pressure cookers (retorts) to produce shelf-stable foods packaged in cans, glass or pouches.

Thermal Pasteurization Units: Continuous pasteurizers to produce safe beverages for refrigerated or shelf-stable products, and batch pasteurizers for bottled products.

UV Pasteurizer: For cold pasteurization of beverages and juices.

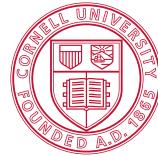
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