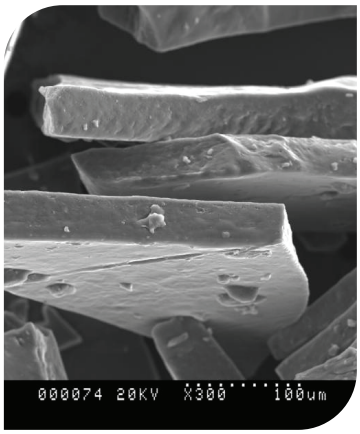
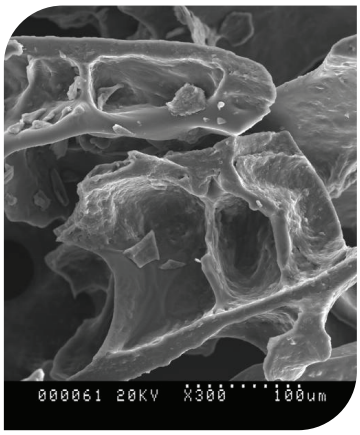
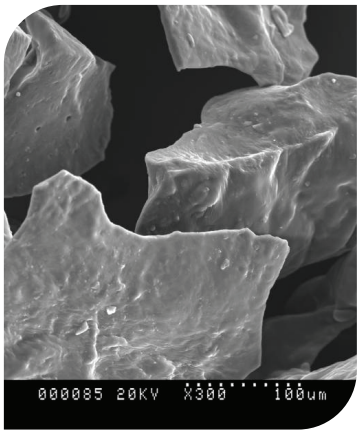
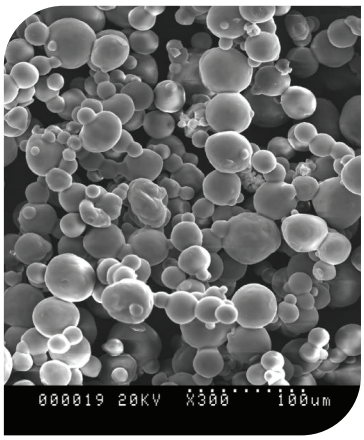
Refractance Window® Drying Technology

THE PROOF IS FOUND UNDER THE MICROSCOPE









Scanning electron micrograph of puree powder obtained by different drying methods. 300x magnification.

RWD method description: fresh product puree is applied to film conveyor belt which sits atop circulating hot water. As product moves over hot water evaporation and exhaust remove moisture within 5 - 10 minutes without carriers or high temperature leaving behind a finished product with phytonutrients, colors, and flavors undamaged.

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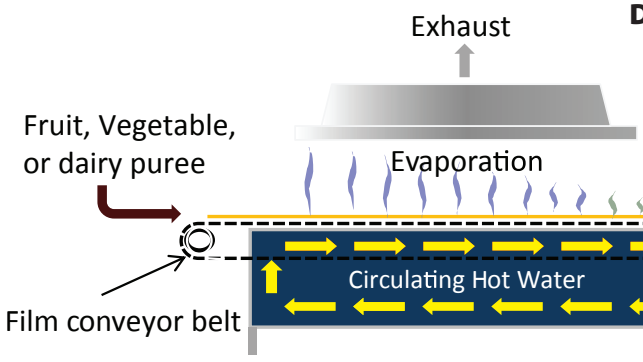
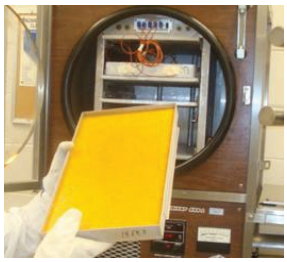
REFRACTANCE WINDOW DRYING (RWD)



Drying Conditions:

- Low temperature drying with no carriers
- No extreme pressures or chemicals
- Microstructure of finished product is uniform and non-porous increasing shelf life. This also aids in reducing oxidation exposure and free radical formation.

FREEZE DRYING

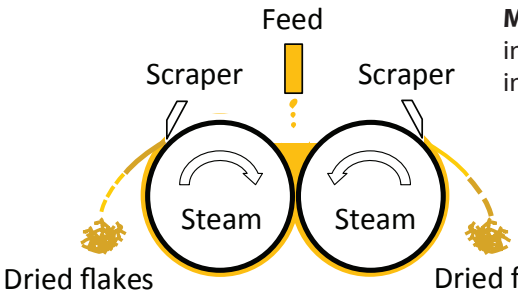


Method description: preservation via rapid freezing followed by subjection to extreme vacuum (low pressure) which removes water via sublimation.

Drying Conditions:

- Exposure to extreme pressures
- Long drying times (32 hours) equals nutrient loss
- Pretreatment with chemical inputs common
- Highly porous finished-product (see micrograph)

DRUM DRYING

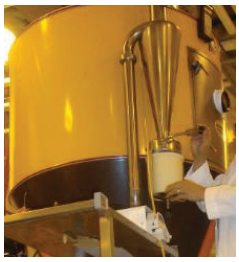


Method description: pureed raw ingredients are applied to rotating drums internally heated with steam to over 300°F

Drying Conditions:

- Exposure to extreme heat
- Color, phytonutrient, micronutrient degredation
- Highly irregular/jagged dried microstructure

SPRAY DRYING



Method description: ingredient is atomized via spraying mechanism into a superheated chamber where hot gases cause raw material to instantly dry

Drying Conditions:

- Exposure to extreme heat with carriers often needed
- Color, phytonutrient, micronutrient degredation
- Highly porous, spherical dried microstructure cause shelf life instability and oxidation (see micrograph)

Drying methods and conditions during production of puree powder comparison.

All information taken from study conducted by Washington State University and University of Idaho. Reference: O.A. Caparino, J. Tang, C.I. Nindo, S.S. Sablani, J.R. Powers and J.K. Fellman Physical Characteristics and Microstructures of Mango Powder (Philippine 'Carabao' var.) Made from Different Drying Systems, Washington State University, Pullman, 99164, University of Idaho, Moscow, Idaho 83844

Studies have shown foods dried by Refractance Window Drying® have a higher retention of vitamins, minerals, enzymes and antioxidants compared to those dried by more commonly practiced methods such as spray or freeze drying. Mt. Capra is proud to have been the very first company ever, to offer whole food products which have been dried using this advanced, yet gentle, technology.

Refractance Window Drying® technology is the gentlest method to dry fresh whole foods. It is a unique, self-limiting dehydration method that uses infra-red light, rather than direct extremes of temperature, to remove water from food. Relying on the conductivity of water together with the properties of infra red and the refractance of light, this is the preferred method for preserving the precious nutrients and phytonutrients found in whole foods. In this process, important sensory qualities of the fresh whole food, such as color, aroma, taste and nutritional value are retained. This is an indicator that the active aromatic and pigment compounds which impart sensory and nutritionally invaluable properties have been preserved throughout the drying process.