

Blueberry Formats to Meet Manufacturer Needs (For USHBC suppliers list go to <http://www.blueberry.org/suppliers.htm>)

Product	Process	Typical Packaging	Characteristic/ Application	Storage
FRESH				
Fresh	Fresh blueberries > packaged	Consumer packs: plastic clam shells, cello packs; Cartons: 2-1/2 lb, 5 lb (2.3 kg), 10 lb (4.5 kg), 20 lb.	Available almost year round.	32° to 34°F (-0.6° to 1°C) 90-95% relative humidity
FROZEN				
IQF (Individually Quick Frozen)	*>Fresh blueberries>individually quick frozen> packaged.	Consumer packs: poly bags. Bulk: Poly lined corrugated cartons 10-50 lb (4.5 - 22.7 kg), poly-lined metal drums: 270 lb (122.5 kg)	Individual fresh fruit identity. Any formulation where fruit identity is important.	0° to -10°F (-18° to -23°C)
Straight Pack or Block Frozen	*>Fresh Blueberries> packaged> flash frozen.	Poly-lined corrugated cartons: 30-50 lb (13.6 - 22.7 kg); poly-lined metal drums: 350 lb (158.8 kg)	High amount of fruit in a box, base ingredient for toppings, syrups fillings and soups.	0° to -10°F (-18° to -23°C)
DRIED				
Dehydrated	*>Fresh or frozen blueberries > air dehydrated to around 11-18 % moisture > further processed to dried fruit specs: i.e. oil coated, diced etc.	Poly-lined corrugated boxes: 5, 10, 25 lb.	Moisture: 11-18 % Water Activity: 0.5-0.6	Shelf stable in a cool, dry place.
Dehydrated Infused	*>Fresh or frozen blueberries are infused with a syrup>dehydrated to 11-18% moisture> further processed to dried fruit specs: eg. oil coated, diced	Poly-lined corrugated boxes 5, 10, 25 lb.	Moisture: 11-18 % Water Activity: 0.5-0.6	Shelf stable in a cool, dry place.
Freeze Dried	*>Fresh or frozen blueberries > flash frozen > moisture removed in vacuum chamber > sealed in moisture proof bags.	Poly lined corrugated boxes (10 lb) and other custom sizes.	Moisture (unsweetened):0-2 % Moisture (sweetened): 9-14%	Stable at room temperature 3 mo., after that store at 40°F.
Osmotically Pre-served	*>Fresh or frozen blueberries >placed in vacuum chamber>undergo slow natural infusion process with syrup solution and stabilizers> carefully dried to preserve color and flavor	Poly lined corrugated boxes (25 lb) and other custom sizes.	Moisture: 40% maximum Water Activity: 0.5 – 0.87	Shelf stable in cool, dry place. Best used within 10 months.
Drum Dried/Powders	*>Fresh or frozen blueberries or purée > drum dried > ground into powder or flakes to specifications	Poly lined corrugated boxes (10 lb) and other custom sizes.	Moisture Content: 3-5% Various screen sizes and granule consistency available.	Stable at room temp. for 3 months, after that store at 40°F.
LIQUID				
Single Strength Purée	*>Fresh blueberries> crushed>finished> pasteurized or cold filled in containers> frozen.	Plastic pails: 28, 30 lb (12.7, 13.6 kg) Poly lined corrugated cartons: 25, 30 lb (12.7, 13.6 kg); Poly lined metal drums: 55 gal (208 l) 400 lb. (181 kg)	Brix: 8.0 -13.0 pH: 2.8 -3.5 >Used in, sauces, flavorings and fillings.	0° to -10°F (-18° to -23°C)
Purée Concentrate	*>Fresh blueberries> crushed > heat/enzyme treated> vacuum concentrated > pasteurized > packaged > frozen.	Plastic pails: 4, 6 gal (15.1, 22.7 l) 28, 30, 60 lb (12.7, 13.6, 27.2 kg) Poly-lined metal drums	Brix Ranges: 20,37, 40 pH: 2.8 - 3.4 >Juices, sauces, blends.	0° to -10°F (-18° to -23°C)
Single Strength Juice	*>Fresh berries > crushed > pressed > filtered > pasteurized > packaged > frozen	Plastic pails: 5,6 gal (18.9, 22.7 l) 28,30,60 lb (12.7,13.6, 27.2 kg) Poly-lined metal drums	Brix: 8.0 - 12.0 pH: 2.8 - 3.4 >All natural fruit juices.	0° to -10°F (-18° to -23°C)
Juice Concentrate	*>Fresh blueberries > crushed > heat/enzyme treated > vacuum concentrated > packaged > frozen.	Plastic pails: 5,6 gal (18.9, 22.7 l) 50,66 lb (22.7, 29.9 kg) Poly-lined metal drums/	Brix: 45.0, 65.0 pH: 2.1 - 2.7 >Fruit juices and sauce flavor.	0° to -10°F (-18° to -23°C)
OTHER FORMATS				
Canned (Packed in Syrup) (Packed in Water)	*>Fresh or frozen blueberries > placed in cans > light or heavy syrup added > sealed > heated. Fresh or frozen blueberries> placed in cans>water added >sealed>heated.	Cans: #2, #2-1/2, #10, other sizes.	Various levels of fruit content depending on supplier and application.	Shelf stable in a cool, dry place.
Bakery fruit fillings	*>Fresh or frozen blueberries and/or other forms > sweetener and starch/gum based slurry added > heated > packaged to specifications. (differs from supplier to supplier)	Plastic and foil pouches, 5 gal plastic pails (18.9 l) and 55 gal drums (208.2 l).	Various levels of fruit content depending upon supplier and end use	Shelf stable in a cool, dry place.
Essence	+ >volatile flavor components distilled off from juice and concentrate process > packaged.	Plastic pails: 5, 6 gal (18.9, 22.7 l) and other sizes.	Intensive blueberry flavor found in no artificial flavoring.	Tightly closed container at 40°F (4°C) or lower
Other	Real fruit bits and chips are formulated out of a blend of purée and other ingredients.	10 lb boxes and other custom sizes.	Fruit Content: 30-40 % >Baking/snack applications.	Shelf stable in a cool, dry place.