

Post-harvest Care to Enhance Blueberry Crop Value

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Small fruit has garnished excitement in the US recently, and sales in the berry category have gone up every year, and blueberries of all types are no exception. Blueberries role as a superfood with high levels of antioxidants have pushed consumer sales. Consequently, overproduction is occurring, particularly in the Eastern US. Proper post-harvest care can extend shelf life and marketing window, which can help growers with the increased competition. Fortunately, blueberries are among the hardiest of small fruit, and with proper harvest, cooling, and packing, fresh market berries can store commercially for 2-8 weeks, depending on numerous factors. Rapid cooling using forced-air soon after harvest can cool product much quicker than static cooling and keep berry quality high significantly longer. In addition, for larger volumes of blueberries, modified atmosphere packaging in the form of pallet schrouds can extend the shelf life 4-8 weeks for most varieties.

Forced-air cooling (FAC) is a relatively inexpensive method of removing heat from blueberries quickly. FAC is accomplished by exposing packages of produce in a cooling room to higher air pressure on one side than on the other. This pressure difference forces the cool air through the packages and past the produce, where it picks up heat, greatly increasing the rate of heat transfer. Depending on the temperature, airflow rate, and type of produce being cooled, forced-air cooling can be from 4 to 10 times faster than room cooling. In this talk, a small FAC cooling system will be shown, and resources will be shared to allow growers to build their own FAC system. The use of modified atmosphere packaging will be discussed as well.