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Antioxidants in Alaska Wild berries

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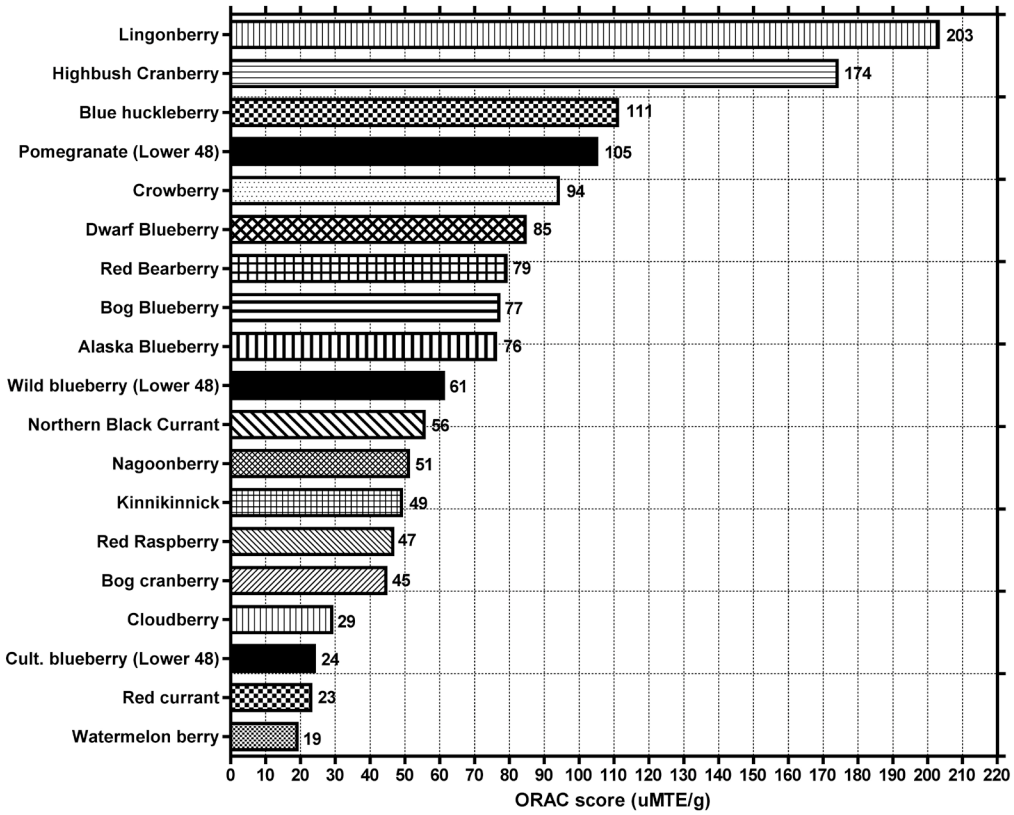
Antioxidants are a group of biochemicals that have been shown to be an important part of the human diet. There are thousands of chemicals know as antioxidants, the most familiar being vitamin C, vitamin E and beta carotene. Recent medical research has shown the beneficial effects of antioxidants on heart disease, macular degeneration, some cancers, diabetes, aging and much more. Studies with antioxidants are still in the early stages, and research is emphasizing the actions of specific chemicals. Some of the most important groups of chemicals are flavonoids and anthocyanins that are found in large quantities in fruits and vegetables. Purple and red-colored fruits are especially rich in pigments called anthocyanins.

One method of measuring antioxidant capacity of foods is a laboratory test called ORAC- oxygen radical absorptance capacity. The ORAC scale is becoming the method of comparison among food groups to show relative antioxidant activity. ORAC is a measure of water soluble antioxidant levels, and it does not distinguish among antioxidants that have benefits to humans and those that don't. It is simply an overall estimate of antioxidant activity.

The original research with fruits showed that cultivated blueberries had the highest ORAC levels of commercial fruit with a score of about 20. Anything above 40 is considered very high. We conducted a research project to find out how our berries compared to the standards for commercial fruit. We learned that Alaska wild berries are a rich source of antioxidants. Nearly all wild frozen berries have an ORAC score greater than 20.



Since few people eat fresh berries, we conducted a second experiment to examine what happens to antioxidant levels when berries are processed. Using recommended recipes from the Alaska Cooperative Extension Service, we made a variety of processed products with bog blueberry (*Vaccinium uliginosum*) and lingonberry, lowbush cranberry (*Vaccinium vitis-idaea*). We compared all processed products to frozen berries. We learned that most processing methods reduced antioxidant levels, but they are still very high if compared to other fruits. Drying fruits and making fruit leather concentrated the skin and pulp significantly increasing the antioxidant levels in each gram of product. This research reaffirms that Alaska wild berries are a great source of nutrients. Processing does not eliminate antioxidants, and drying concentrates antioxidants to extremely high levels.