

nutraberry

Chemical composition of caneberry (*Rubus* spp.) seeds and oils and their antioxidant potential.

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Abstract

Caneberries (*Rubus* spp. L.) are grown primarily throughout the Pacific Northwestern United States and Canada. Processing of caneberry fruit typically removes the seed, and the development of a value-added use of seeds could expand the market for caneberries and the profit margins for growers. An initial step toward the use of the seeds is a characterization of seed and oil. Our investigation has described compositional characteristics for seeds of five commonly grown caneberry species: red raspberry, black raspberry, boysenberry, Marion blackberry, and evergreen blackberry. Seeds from all five species had 6-7% protein and 11-18% oil. The oils contained 53-63% linoleic acid, 15-31% linolenic acid, and 3-8% saturated fatty acids. The two smaller seeded raspberry species had higher percentages of oil, the lowest amounts of saturated fatty acid, and the highest amounts of linolenic acid. Antioxidant capacities were detected both for whole seeds and for cold-pressed oils but did not correlate to total phenolics or tocopherols. Ellagitannins and free ellagic acid were the main phenolics detected in all five caneberry species.

