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Berries May Protect Against Cancer and Heart Disease

By [Hank Becker](#)

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Blueberries, cranberries, huckleberries and related plants have now been found to contain resveratrol, a potential anticancer agent, according to [Agricultural Research Service](#) scientists who made the discovery.

This new finding from ARS chemist Agnes Rimando at the [Natural Products Utilization Research Unit](#), Oxford, Miss., adds to previous research by other scientists who found that dark-skinned bunch grapes contain resveratrol. Rimando is working with scientists at [Agriculture and Agri-Food Canada](#), Kentville, Nova Scotia, and the [ARS Small Fruit Research Station](#) in Poplarville, Miss.

Using chemical identification procedures, the team of scientists measured the resveratrol content of 30 whole fruit samples of blueberry, cranberry, huckleberry and related plants. The samples represented five families and 10 species of *Vaccinium* fruit. They also measured resveratrol in skin, juice/pulp and seed samples of muscadine grape.

Because of its important biological properties, resveratrol (3,5,4-trihydroxystilbene) has been examined extensively in grapes. Studies showed the compound protects the grapes from fungal diseases. It also provides health benefits for consumers by reducing the risk of cardiovascular disease. The compound's anticancer potential warranted its examination in other fruits.

The team's studies showed that several fruit samples of *Vaccinium* contain varying amounts of the compound. Analysis of the extracts of the skin, juice/pulp and seed of muscadine grapes showed that concentration of resveratrol in the skin was highest. Levels in the juice/pulp were much lower than in the skin and seeds. Analysis of more *Vaccinium* and muscadine samples is continuing.

The new data could help build a foundation for increasing resveratrol in those berry and grape crops that are important to many small farmers. Future research goals will include enhancing production of resveratrol in selected species.

ARS is the lead scientific research agency of the [U.S. Department of Agriculture](#).

Scientific contact: Agnes Rimando, ARS Natural Products Utilization Research Unit, Oxford, Miss, phone (662) 915-1037, fax (662) 915-1035, arimando@asrr.arsusda.gov.

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