

# Scientists find aphid resistance in black raspberry

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ARS horticulturist Chad Finn scientist and his colleague are the first to find black raspberries with resistance to the large raspberry aphid, which spreads a virus that has had severe consequences for producing commercial crops of black raspberries. Credit: Michael Dossett.

There's good news for fans of black raspberries: A U.S. Department of Agriculture (USDA) scientist and his commercial colleague have found black raspberries that have resistance to a disease-spreading aphid.

Agricultural Research Service (ARS) horticulturist Chad Finn with the agency's Horticultural Crops Research Unit in Corvallis, Ore., and colleague Michael Dossett of Agriculture and Agri-Food Canada are the first to find and report black raspberry resistance to the large raspberry aphid.

ARS is USDA's chief intramural scientific research agency, and this research supports the USDA priority of promoting international food security.

The researchers screened seedlings from 132 wild black raspberry populations for aphid resistance. According to Finn, strong resistance was found in three of these populations—one each from Ontario, Maine, and Michigan. Aphid resistance in the Ontario and Maine populations seems to be controlled by multiple genes, while resistance in the Michigan population is governed by one [dominant gene](#).

Identifying these genes makes it easier for breeders to incorporate aphid resistance into commercial black raspberry cultivars.

Aphid control is important because [fruit production](#) is severely impacted by black raspberry necrosis virus, which is transmitted by the large raspberry aphid. This and other [aphids](#) are important virus vectors in North American [black raspberries](#).

Although breeding for aphid resistance has been recognized as an important tool for protecting red raspberries from viral infection, this is the first report of aphid resistance in black raspberry, according to Finn.

**More information:** [www.ars.usda.gov/is/AR/archive ...  
oct12/fruits1012.htm](http://www.ars.usda.gov/is/AR/archive...oct12/fruits1012.htm)

Provided by United States Department of Agriculture

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