

# SMALL FRUIT RESEARCH

Small fruits, like berries, grapes, and currants, are high value crops. Growers can profit from relatively small plantings and investment, making small fruits a good option for many small farms. Despite high grower interest, most states have only one small fruit researcher, and many states have none.

To support American small fruit farmers, land-grant university researchers and Extension specialists across the U.S. are working together to facilitate small fruit breeding programs and identify the best production practices and tools.

## ADVISING BERRY & GRAPE GROWERS

Research has helped small fruit growers determine which varieties may perform profitably in the growing conditions on their farms.

Researchers have also recommended growing techniques to improve fruit yield and quality in diverse climates.

Berry farmers working directly with Virginia Cooperative Extension have seen increased sales and profits.

## DEVELOPING BETTER VARIETIES

Genetics research has sped up and lowered the costs of breeding new small fruit varieties. Scientists developed new varieties that are suited for a wider range of climates and resist diseases and pests. New varieties make small fruits a profitable option for more growers.

Researchers have also bred tastier berry varieties and grapes with double the normal shelf life. These advances are providing consumers with top-quality fruits.

Small fruit varieties developed by public breeding programs in the Pacific Northwest make up over 60% of raspberry, strawberry, and blackberry plant sales in the region. The University of Florida developed strawberry and blueberry varieties that dominate acreage in Florida and are widely used around the world.

Land-grant university research is partly responsible for the sevenfold increase in organic small fruit acreage in Oregon and the increase in organic small fruit value.

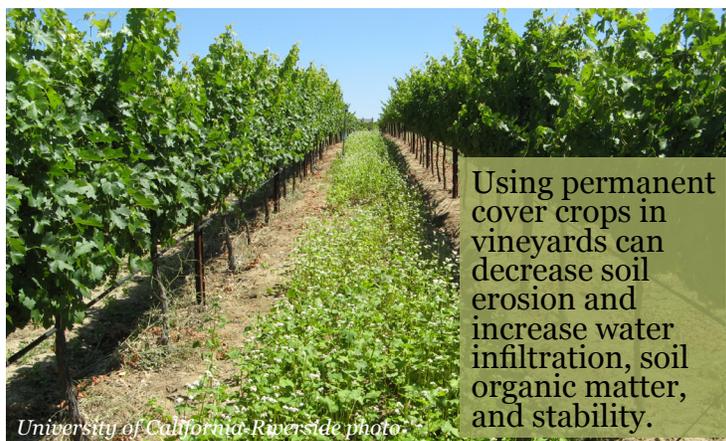


## NEW SMALL FRUIT MANAGEMENT STRATEGIES



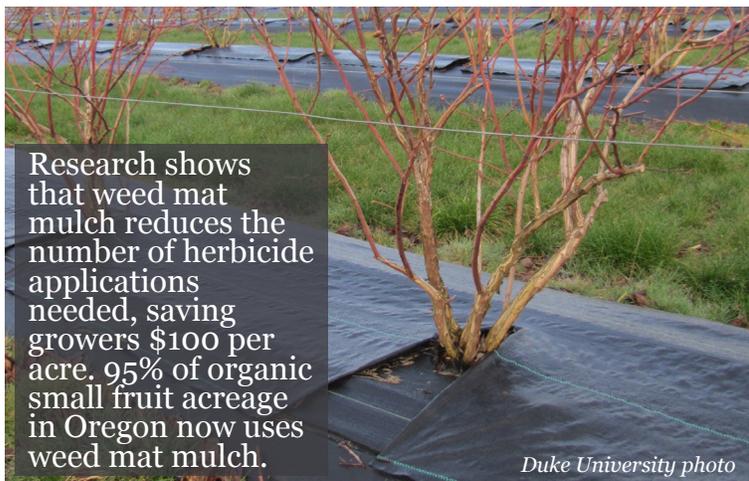
Research has convinced some vineyard managers to alter their practices. By not thinning vines, growers could save \$540 per acre in labor costs and see a 10-40% increase in yields, which could increase profits by nearly \$100,000 per year for a 50 acre vineyard.

*Neville Nel, Flickr*



Using permanent cover crops in vineyards can decrease soil erosion and increase water infiltration, soil organic matter, and stability.

*University of California-Riverside photo*



Research shows that weed mat mulch reduces the number of herbicide applications needed, saving growers \$100 per acre. 95% of organic small fruit acreage in Oregon now uses weed mat mulch.

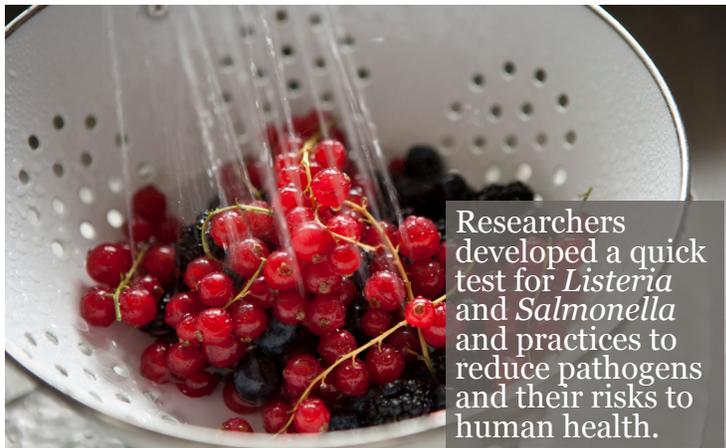
*Duke University photo*



Recommendations for irrigation and fertigation conserve water and reduce sediment and chemical runoff. For example, using micro-sprinklers to control flies in blueberry crops will likely result in less berry loss, lower labor and equipment costs, and less water use compared to conventional sprayers.



A new tool helps growers quickly and accurately determine possible fruit fly infestation in shipments, helping growers save on shipping costs, and access new markets.



Researchers developed a quick test for *Listeria* and *Salmonella* and practices to reduce pathogens and their risks to human health.

This Multistate Research Project (*NCCC-212: Small Fruit and Viticulture Research, 2011-2016*) is supported by the Multistate Research Fund through USDA-NIFA and by grants to project members from the following institutions: Auburn University, University of Arkansas, Arkansas Cooperative Extension, Cornell University, University of Florida, Georgia Cooperative Extension, University of Guelph, Iowa State University, University of Kentucky, Michigan State University, University of Minnesota, North Carolina State University, North Dakota State University, Oregon State University, Pennsylvania State University, Purdue University, Rutgers University, Texas AgriLife Research, Utah State University, Virginia Polytechnic Institute and State University, Washington State University, and University of Wisconsin. Other partners include Atlantic Food & Horticulture Research Center, Dole Berry Co., Driscoll's, Horticultural Research Institute, MGB Marketing, and USDA-West Virginia. Learn more: <http://bit.ly/NCCC-212>.