

## "Breeding disease resistant table grapes"



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USDA - ARS

**Friday, March 17, 2017**

3:00 – 4:00 PM

Science 2, room 109

For further information: [www.csufresno.edu/biology](http://www.csufresno.edu/biology)

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California is the largest producer of grapes in the U.S., accounting for more than 90% of total production. Grape production is limited by many abiotic and biotic stress factors such as drought, pests, and pathogens. These factors, often managed through cultural and chemical practices, cause annual losses. Resistant cultivars are not currently available, but are needed to help further mitigate losses. Breeding efforts have commonly focused on developing grape cultivars with resistance to powdery mildew and Pierce's disease, two major diseases of grape in California. Breeders are primarily utilizing single-gene sources of resistance, but multi-genic resistance is needed to deal with every changing pathogen populations. Shifting populations and genetic diversity of pathogens can result in resistance gene failure, particularly in perennial crops with long-term exposure. Understanding pathogen populations can help inform breeding decisions when selecting for sustainable resistance. Our research identifies sources of durable host resistance, while characterizing the diversity of pathogen and pest populations.

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If you need a disability-related accommodation or wheelchair access, please contact Lindasue Garner at the Department of Biology at 278-2001 or e-mail [l Garner@csufresno.edu](mailto:l Garner@csufresno.edu) (at least one week prior to event).