

New Grape Rootstocks Fight Pests Naturally

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Five new pest-resistant grape rootstocks recently released by UC Davis are environmentally friendly alternatives to chemical fumigants.

The new rootstocks are resistant to nematodes (tiny worms) and phylloxera (aphids) -- two of the most damaging vineyard pests. They feed on the plant roots, severely weakening the vines and drastically reducing grape yield.

In the past, growers have used chemical fumigants to kill such pests but, in many cases, fumigation now is either ineffective or not permitted.

The hardy new rootstocks were unveiled March 31 during a public ceremony at the campus's Foundation Plant Services nursery, marking the culmination of 15 years of research by Professor Andrew Walker, a plant geneticist and breeder in the Department of Viticulture and Enology, and Howard Ferris, a professor in the Department of Nematology.

"These new rootstocks are designed to be planted in the ground without fumigation," Walker said. "They provide growers with a new alternative to fumigation -- a new, 'greener' way, if you will, of solving the problem."

The rootstock includes the root and trunk of a grape plant, onto which many different grape vine varieties can be grafted. Walker and Ferris developed the new rootstock plants using conventional breeding methods.

Wine from the rootstocks could be on the shelves by 2013, following two years of nursery propagation, three years growing in a vineyard, and one year in the bottle. Table grapes will be available a year earlier.

Source: UC Davis

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