

# A MULTI-FACETED APPROACH TO MANAGING POWDERY MILDEW ON ORGANIC TABLE GRAPES IN SOUTHWEST IDAHO

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## PRELIMINARY RESEARCH RESULTS

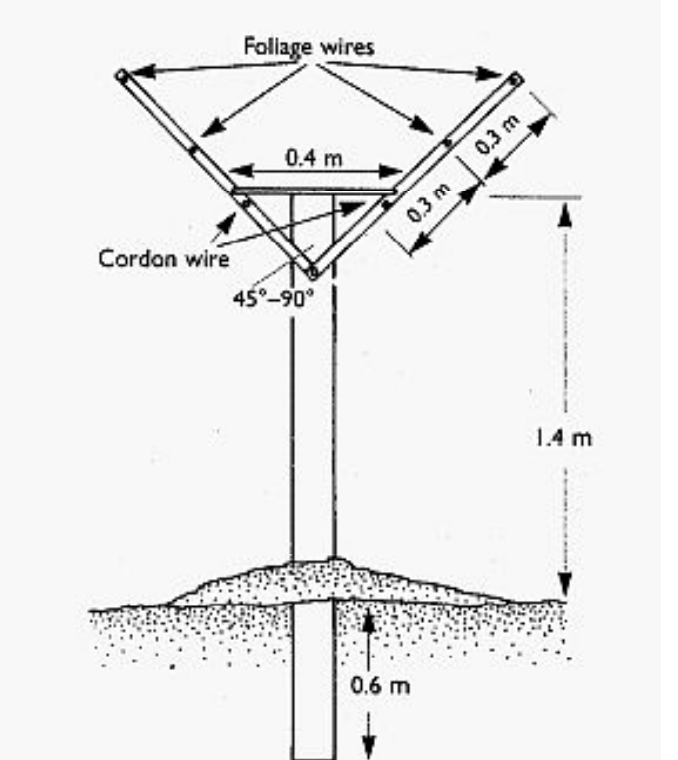
Organic table grape production is a promising match for southwest Idaho's rapidly changing agricultural landscape.

Producer Mike Medes of Rocky Fence Vineyard grows organic table grapes on nine acres outside Emmett, Idaho, and planned to market his grapes directly to local, regional and international customers in 2007, but powdery mildew destroyed 92% of his fresh market crop.

Our team's applied research and subsequent recommended practices have contributed significantly to the viability of producer Mike Medes, and have caught the attention of both conventional and organic table grape growers across the region.

Medes is averaging 6,000 pounds of marketable fruit per acre, and the growing Idaho table grape industry is eagerly anticipating our published results that will positively contribute to their success.

## STRATEGIES FOR PREVENTION OF POWDERY MILDEW

Strategy at Rocky Fence Vineyard	Benefit in Disease Prevention
Converted 1644 existing "T" vine trellis systems at Rocky Fence Vineyard to expanded "T" or "Y" systems. 	"Y" trellis system—the open gable popular in has a "Y" trellis format with six horizontal wires, three on each branch of the "Y." This system results in separation of fruit from the canopy and decreases humidity, increases temperature, and improves ventilation in the fruit zone. This system also allows sprays to be directed at either the fruit, canopy or both depending on objectives.
Applied dormant treatment of Lime-Sulfur or Superior Oil NW before bud break.	Smothers overwintering fungus on canes.
Began preventative treatment of sulfur spray (2-10 lbs/acre every 7-14 days following bud break.	Preventative treatment excludes fungus from vineyard.
Alternatively, after bud break and positive fungus detection, collect and compute Emmett weather station data for correlation with the UCIPM RAI tool. Follow treatment interval recommendations provided by the tool, applying only approved materials.	May send up spraying less often, but leaves vineyard more vulnerable to infection by waiting for detection.
Applied compost tea treatments every 7-14 days.	May interfere with powdery mildew colonization on leaf surface. Testing underway to analyze benefit.
"Hedged" or summer pruned vines.	Experimental process to further open canopy in late summer to increase sunlight penetration, air flow.

