



Western SARE

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VINEYARD FLOOR MANAGERS

Situation

Suppressing weeds and tilling cover crops in organic vineyards is challenging and costly. Using an heirloom breed of miniature sheep, Olde English Babydoll Miniature Southdowns, to maintain vineyard and orchard floors is a sustainable approach to

Farmer/Rancher Grant

Title: Organic Vineyard/ Orchard Weed and Grass Management Using Miniature Sheep

Project Number: FW04-028

Principal Investigator

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Cooperators

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Michael Brunson, Assistant Winemaker, Michel-Schlumberger Winery, Healdsburg
Glenn McCourt, Viticulture & Plant Science Advisor, UCCE-Mendocino County, Ukiah

SARE Grant: \$7,472

this problem and has been shown to be more cost effective than other more labor-intensive weed/grass management methods.

These miniature Southdown sheep are 24 inches or less at the shoulder without wool, so they can't easily reach the canopy of most grapes. They have also been used to sucker and hedge vines, and the manure they add is another bonus.

Objectives

- Analyze the cost benefits of using miniature sheep versus mechanical methods for weed control in organic vineyards and orchards
- Demonstrate a unique, sustainable farming practice that may encourage more growers to use organic methods



A month-old Babydoll lamb.

Actions

- Tested 24 sheep in both low-density (3-4 sheep per acre) and high-density (7-8 sheep per acre) situations on the Fetzer Vineyards. Study

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Sheep are turned into the vineyard to do their vineyard floor work.

SARE's mission is to advance—to the whole of American agriculture—innovations that improve profitability, stewardship, and quality of life by investing in groundbreaking research and education.

The Western Region, one of four SARE regions nationwide, is administered through Utah State University.

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VINEYARD FLOOR MANAGERS

block divided into 6 sections using electric fencing, with these measures: monthly clippings of weeds and other plants; plant composition; compaction; N, P, K; and economics, including costs of leasing and owning sheep

- Tested 12 sheep in the Michel Schlumberger Vineyards, a hillside vineyard of approximately 4 acres, where the steepness makes mechanical weed management difficult.

Results

On the Fetzer Vineyards, the sheep did their job beautifully, keeping the vineyard floor grasses and weeds well maintained. During bud break, the sheep tasted the buds and were removed.

The owners of the Michel Schlumberger Vineyards were very satisfied with the sheep performance, though they noted the importance of getting them in early and then out before bud break.

Potential Benefits

1. The sheep maintain the vineyard floor, keeping the weeds and grasses clipped to within 1 or 2 inches. They also ate the unwanted vine suckers, eliminating another costly and labor-intensive job.
2. The manure they deposit offers an additional benefit by improving soil nitrogen.
3. Smaller hooves and the weight of the miniature sheep kept the vineyard floor from being compacted as it would have been by mechanical weed management.
4. The little sheep in



Ann Thrupp, manager of organic development with Fetzer, takes grass clipping samples.

the fields created a tremendous draw for workers and visitors and resulted in goodwill for the winery.

5. Economically, it makes sense if the sheep are purchased rather than leased, although leasing affords the vineyard a chance to assess success without sheep upkeep costs.

Outreach

This project has received considerable exposure:

- Walton spoke to 100 winegrowers at the UCCE Organic Winegrowing Short Course in November 2003

- Canvas Ranch was featured in a program aired nationally on HGTV titled *50 Ways to Save the Planet* hosted by Nell Newman of Newman's Organic
- The sheep were featured in July 2004 articles in *Gourmet* and *Fortune* magazines
- A March 2005 article featured Walton and her sheep in the *Santa Rosa Press Democrat*
- In August 2005, Canvas Ranch was featured in an eight-page article in a national magazine, *\$1,000,000 Blueprint*

Walton's work with the miniature sheep and the publicity surrounding it have prompted queries from nearly 100 vineyards. Because of Walton's work and the publicity it has generated, Babydoll Southdown sheep are being used in at least 25 vineyards to date, including a 1,000-hectare vineyard in New Zealand.



Deborah Walton feeds her Babydoll Southdown sheep at Canvas Ranch near Petaluma.