

Trees and Vines Extra

Mineral oil and fatty acid material

Powdery mildew weapons near

By T.J. BURNHAM
Farm Press Editorial Staff

GONZALES, Calif. — New registrations of fatty acid and an oil material on the horizon for California grape growers bring important additional weapons to the fight against powdery mildew in the vineyard.

Results in tests by Monterey County farm advisor Larry Bettiga using the materials "took quite good," he reported during a field day here. The materials, Stylet oil and fatty acids like 1446, appear to be helpful additions to other materials used in the fight against fungus, he said.

"Both the mineral oil and fatty acid material show they have some potential as far as supplementing some of the currently registered materials for powdery mildew control," he concludes. "I do not see these materials as something to use solely, but to be applied in conjunction with existing registered materials."

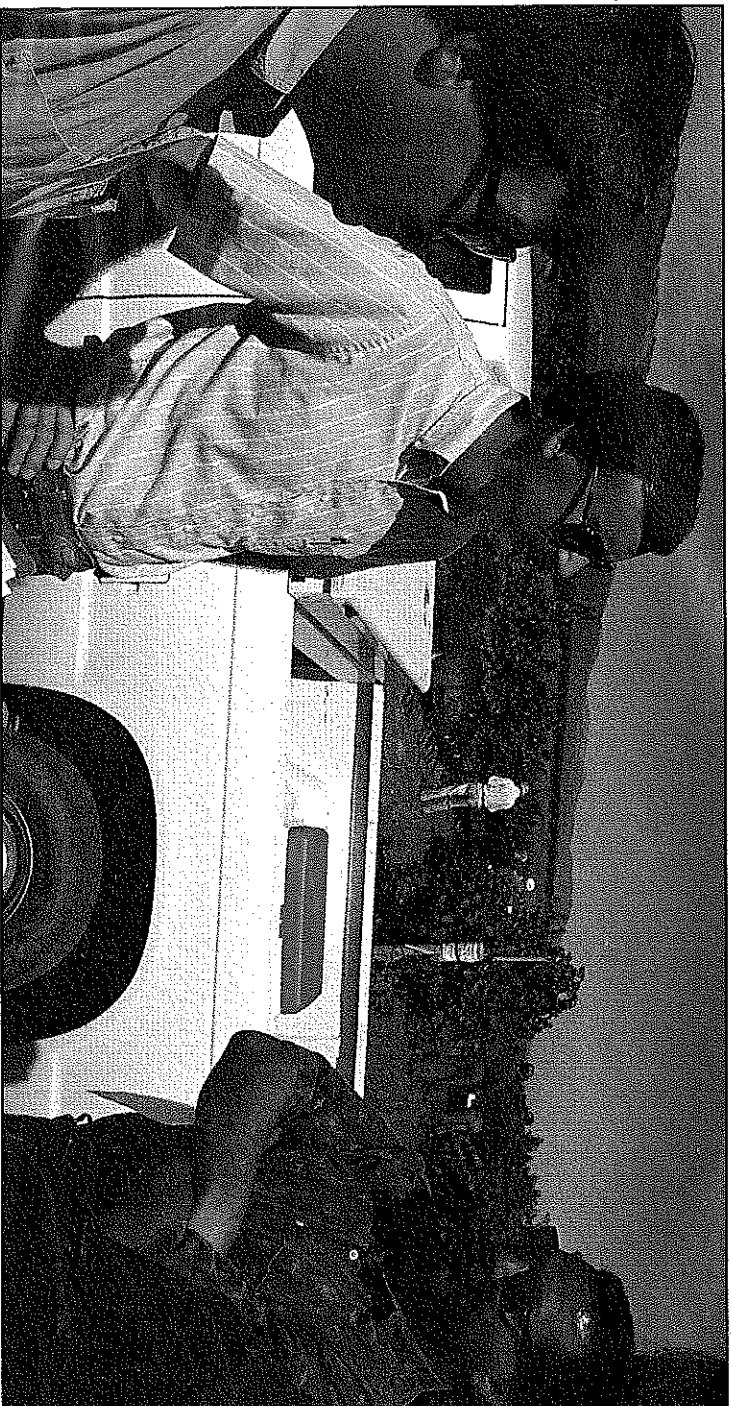
Their registration "opens up the possibility of use in combination or in alternation with other products," he explained. "They are new additions to the mix of what is available that can be helpful in preventing resistances."

The products offer new tools to help prevent resistance problems

(See MILDREW, Page 30)



A CLOSE LOOK at how mineral oil and fatty acid work against powdery mildew in the vineyard was offered during a Monterey County field day.



GRAPE GROWERS Richard Boer, left, and Steve Oliveira, right, review powdery mildew oil and fatty acid control results with farm advisor Larry Bettiga.

Black grape passes first harvest test

By DAN BRYANT

FRESNO, Calif. — Marroo, the black seedless table grape from Australia, was harvested commercially for the first time in the San Joaquin Valley this year, and advocates say it can take a place with established white and red varieties.

Some 40 growers from Arvin to Madera have planted a combined 600 acres of it since 1991, and this year's crop is estimated at from 15,000 to 20,000 boxes, according to Tim Sheehan, president of Emerald Leaf Nursery and agent for sales of the Marroo.

Sheehan worked for 11 years with plant breeder John Weinberger, who bred the Flame Seedless while with USDA in Fresno before his retirement from that agency. The two later patented for SunWorld-Superior Farms 18 stone fruit and grape varieties. Sheehan subsequently established his own company in a search for new varieties around the world.

Patented by the Australian Commonwealth and Scientific Industrial Research Organization, the counterpart of USDA, the Marroo was bred in 1977 and was Australia's first black seedless grape release. It was developed in the Mildura area where the climate is similar to the S.J.V. CSIRO breeders, naming it after the aborigine word for black, billed it as the world's largest black seedless grape.

Sheehan describes the variety as capable of yields of 800 to 1,000 boxes per acre, with jet black, ovoid-shaped berries averaging nearly one inch in diameter and having appealing crispness and flavor. He predicts it can have as great an impact on the California table grape industry as the Flame Seedless.

However, Sheehan does not want acreage to get ahead of the learning curve as growers get accustomed to the new grape. His contracts with growers limit plantings to 5,000 acres in the state, with royalties collected to assist growers in cultural practices and marketing.

Sheehan "discovered" the Marroo, a cross between Carolinna Blackrose and Ruby Seedless, in 1988 while in Australia following leads on new varieties. He visited Beau Lyons, who had 120 acres of table grapes in the tropical climate of Townsville in Queensland.

Lyons, a former CSIRO employee, followed the breeding program and noticed the grape a couple of years earlier. He was impressed with its potential, and had 30 acres of it when he met Sheehan.

"It took a few years, but we realized we had something quite spe-

(See MARROO, Page 29)

TREES AND VINES

New table grape

(Continued from Page 29)

rootstock is with a problem condition such as a previous vineyard site, very sandy soil, or clay soil that cracks and has potential for phylloxera. Some growers want everything on rootstocks."

He says sales of Marroo this first year have been brisk. "It's been moving in the market very fast. Prices have been up to \$17.35 a box, or \$4 to \$5 over the market average for early August, and our growers have received quotes of up to \$20."

Although storage of the new grape is no issue this year, Sheehan says CSIRO tests showed it can be stored for 60 to 90 days without any problems. "Plant breeders have worked for a long time to improve appearance and shipping quality, and flavor was somewhat secondary. Now we have good handling fruit with excellent taste, and that's what consumers want."

Marroo plant material was sent to the USDA Foundation Plant Materials Service at Davis in the mid-1980s for quarantine and indexing. Coincidentally, it was slated for release in 1990, when Sheehan obtained a precious single cutting, which he multiplied to about 25 plants through tissue culture, to get Emerald Leaf's program started.

He arranged with Oki Nursery in Sacramento for mist propagation of the plants, but the overwhelming frost of December 1990 and January 1991 proved a massive set-back. Despite the nursery's attempts to protect its greenhouses, even natural gas lines froze and all but 30 of the 30,000 Marroo plants accumulated by then were lost to cold.

"I almost put me under," Sheehan says. "I had orders for 40,000

to 50,000 plants for the following spring. I had to start over. Fortunately, my five clients agreed to plant late in the summer and in the fall. Those are the plants that produced this year's first commercial crop."

The first Marroo planting was 10 acres in June of 1991 in Fresno, followed by seven acres in Reedley in July and 56 more acres in Kern County in September. More growers visited Australia with Sheehan that winter and signed up for more acreage. In addition to the 600 acres now in the ground, he has test plots from San Diego to Lodi and in Arizona, Washington, and Arkansas. He also has sales rights for Marroo in Europe and South America, where acreage is going in.

Noting that Marroo maturity falls generally between the end of the Flame Seedless harvest and the beginning of the Thompson Seedless, Sheehan says all three can be on the market at the same time.

"For years, we've known that the biggest gap with table grapes was a good black seedless to go with the whites and reds. Dr. Weinberger and I worked very hard to come up with a good black seedless with commercial potential. Millions were spent to develop what I eventually came across in Australia."

In limiting Marroo to five percent of the acreage typically used for table grapes, Sheehan believes he can head off the hazard of too much of a good commodity and thereby sustain reasonable prices. "If you have something new and it is overplanted in several years, you start to see just mediocre prices. We have almost 30,000 acres of Flame Seedless in California and some think that's too much."

For orderly marketing, he sees

Mildew

(Continued from Page 28)

that could result from overuse of registered products such as sterol inhibitors, he noted.

"The oils and the fatty acids could be used as inhibitors to delay resistance from becoming a problem," he said. "These materials have eradication possibilities, and can have a place in resistance management programs in the vineyard."

Neither the fatty acids nor the mineral oils display protectant capabilities.

"In the past we have not had very good eradicants," he observed.

The mineral oil is a highly refined product with a UR rating of 99 percent, meaning that its potential for burn is much lower than other oils which range nearer the 92 percent level, Bettiga added. The lower the UR number, the greater the potential for burn.

The fatty acid also offers an additional product for organic growers to consider, he said.

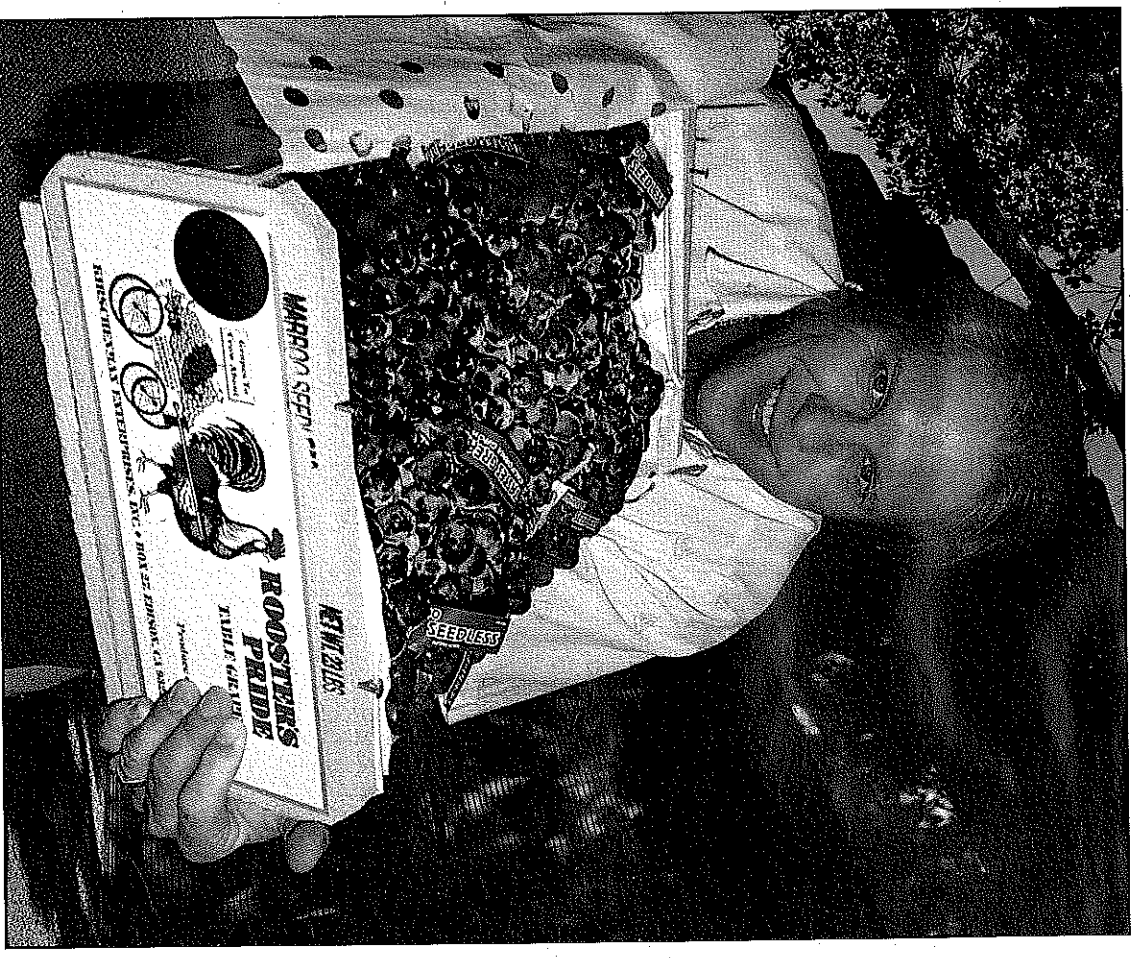
Stylet oils are already registered for mealy bug control in grapes, but not at the rates used by Beth-

ga in the tests here. Work is under way to add those rates to a future label, he said. Registration of at least one of the fatty acids in the test is also expected next year.

"The reason for the field day," said Bettiga, "was to make sure growers see what these products can do. Both did very well in the tests, doing as well or better than sulfur by itself. The thing to remember is that they are intended to be used in combination with other materials on the market, and not as the only tool against powdery mildew in the vineyard. We are trying to prolong the lives of our powdery mildew materials, and feel that by combining the products that are available, we can meet this goal."

Importantly, he added, growers should remember that coverage is the key to success of these products. Unless you get good coverage, using these materials can be a nightmare."

Bettiga presented a series of charts at the field meeting comparing the results of the oils and acids with other materials, and is available to discuss the results with growers contacting him as his Salinas office.



MARROO SEEDLESS grape was harvested for the first time in the SJV this year, and Tim Sheehan of Emerald Leaf Nursery expects to sell more of the Australian variety.

an eventual distribution of about 500 acres in the Coachella Valley, 1,000 around Arvin, 1,500 for Bakersfield-Delano, 1,000 in the Fresno area, and 1,000 for Madera northward.

A CSIRO royalty of 25 cents per box will be charged until the expiration of the patent in the year 2007, and an additional 25 cents per box is charged for five years to cover cultural assistance, marketing, and promotion of the variety.

Naval orange propagated

A navel orange which is native to Australia and ripens in this country during the summer is being propagated in California and is now available for planting.

A license to distribute the Barnfield navel has been granted to M. Caratan Inc., operators of Columbine Vineyards in Delano. The Caratans have been citrus (navel orange) growers for 35 years.

Luis Caratan, president of M. Caratan, said the late navel can extend the marketing season for seedless oranges into the summer. It ripens about one month later than Lane Late navel, another Australian native, and a full seven months later than the bulk of the California navel crop.

Inquiries can be directed to Luis or Milan Caratan in Delano at (805)725-2566 or Dowlm Young at Young's Nursery (619)397-4101.