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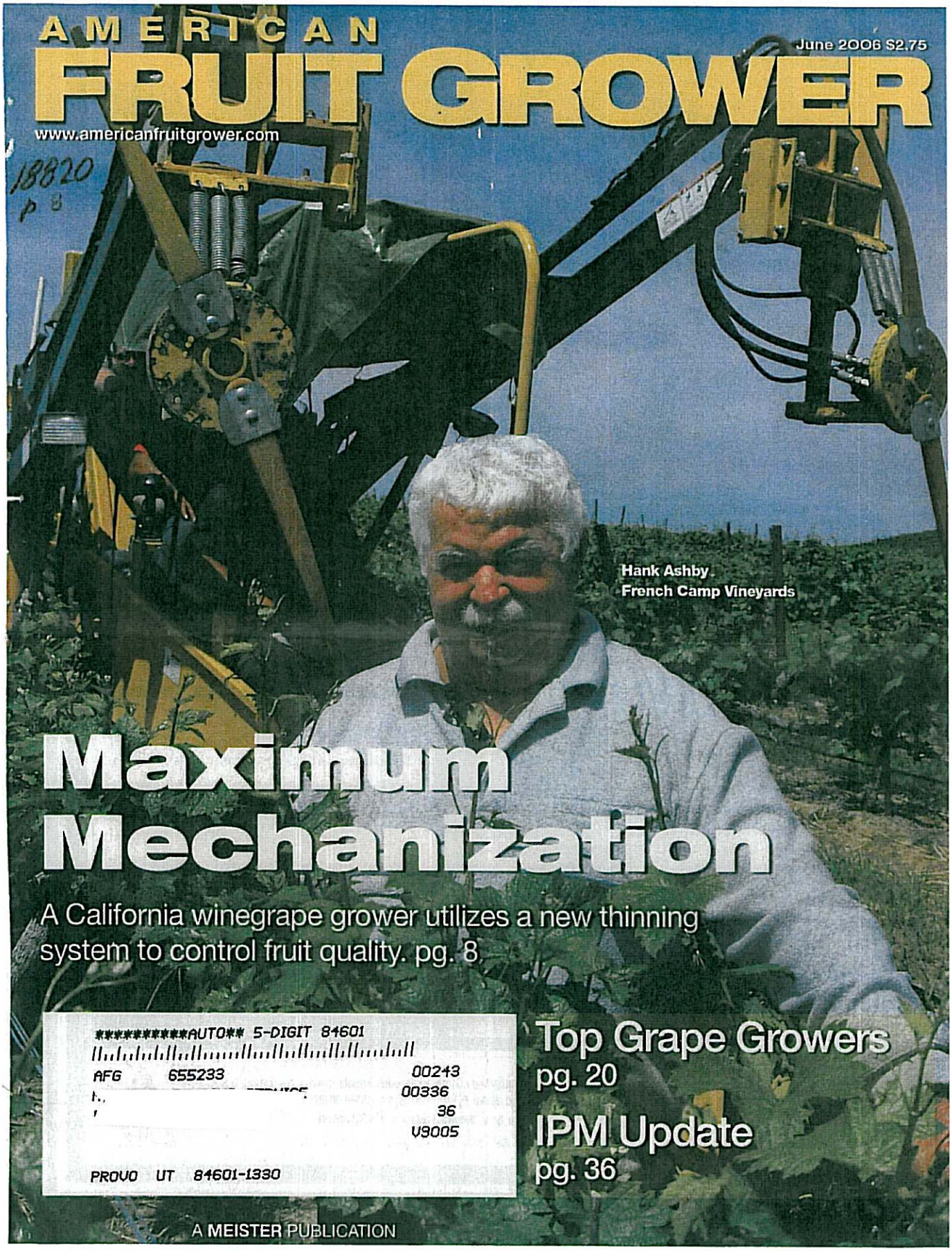


Hank Ashby,
French Camp Vineyards

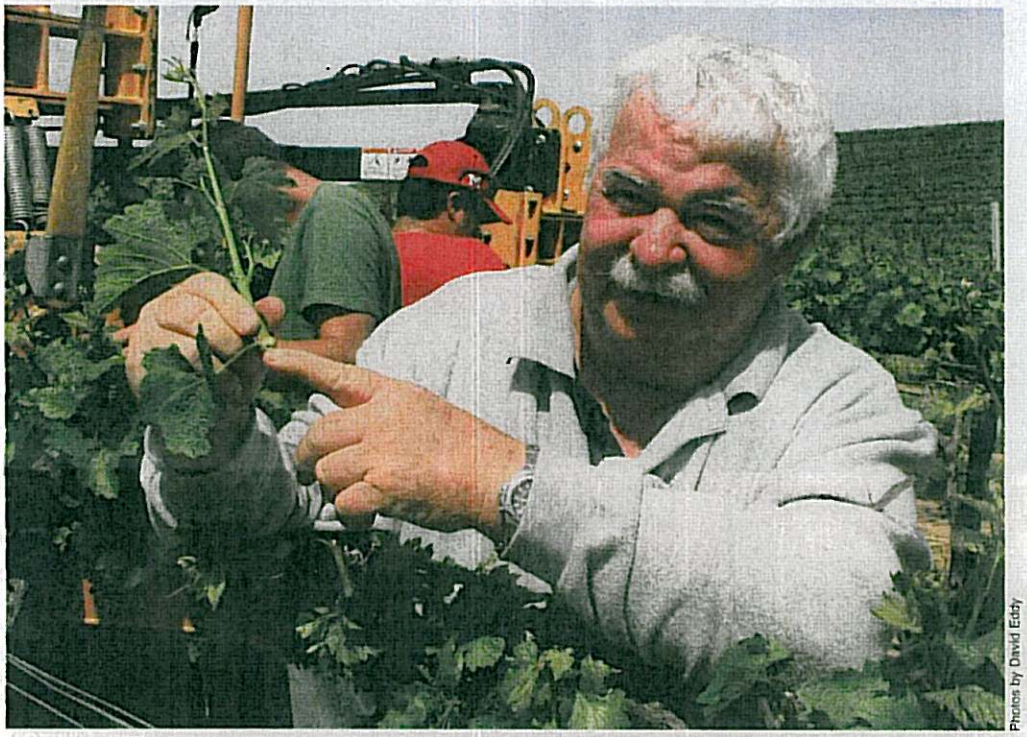
Maximum Mechanization

A California winegrape grower utilizes a new thinning system to control fruit quality. pg. 8

A MEISTER PUBLICATION

Maximum Mechanization

This California winegrape grower is the first to fully utilize a patented new mechanization system.



Photos by David Eddy

Precise cuts are a must when shoot-thinning, or the shoot can grow back, says Hank Ashby of French Camp Vineyards

By David Eddy
Senior Western Editor

IF YOU were to head east of Paso Robles, CA, along about early May, cruising through the Central Coast's lush green wildflower-sprinkled hills — and dotted with several wildlife photographers sitting or even lying down next to their camera-laden tripods photographing said wildflowers — you'd eventually come upon a sight unseen anywhere else in the country. Chugging through the hilly vineyards are a couple of rigs, each with a driver in front and at least a couple of guys in back of a unit that has two long metal arms with fan-like contraptions literally beating on the young vines. It's shoot-thinning time at French Camp Vineyards.

The vineyard manager, Hank Ashby is a pioneering viticulturist, the first American grape grower to try mechanical shoot-thinning, part of a total vineyard mechanization system. At full tilt, he's running six of the units, which were invented by Justin Morris, distinguished professor at the Institute of Food Science and Engineering at the University of Arkansas, and a Arkansas grape grower, Tom Oldridge. A patent was issued to the university in 2002, and it was licensed to OXBO International Corp., which manufactures and markets the product under the name vMech Total Vineyard Mechanization System. French Camp Vineyards is the only grower to own a unit (it now has three) and it leases another three from OXBO.

Ashby didn't decide one day to just go out and buy one of the units. It was more of a gradual process that started when French Camp's owners, Steve and the late Bob Miller, became convinced about a decade ago that labor was going to be a huge problem in the future. They charged Ashby with figuring out a way to mechanize French Camp's operations as much as possible. But they had one condition that absolutely could not be breached, one that at the time made a lot of growers think, as some still do, that Ashby's quest would be fruitless. "The Millers are very quality-conscious," he says, "and they told me that they wanted to implement mechanical farming, but with no decrease in quality. None."

CROP

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Controlling Quality

Ashby then set about studying all the ways to mechanize operations, and the Morris-Oldridge system was the one he liked best. It was the one

system, he says, that allowed him to precisely manage how much tonnage he would produce, which is absolutely necessary. "To have good quality, you have to manage fruit load, which isn't easy, because grapevines are naturally biennial-bearing," he says. "If you have too big a crop, you can get poor quality, but too small a crop and you go broke," he adds, chuckling.

What appealed to Ashby about the Morris-Oldridge system is that it was easily adjustable so that he could change the specifications depending on the vineyard block he was working in. For example, while recently shoot-thinning, he was working in a Chardonnay block where he was leaving six to seven shoots to the foot. "We're mimicking hand-farming, because we can set the equipment to leave two, three, four, whatever," he says. "For instance, with Sangiovese, we'll generally take it down to three shoots per foot."

But the real beauty of the system is that Ashby can leave more shoots than he would if he were hand-farming. On the Chardonnay block, for example, instead of leaving six or seven shoots, he probably would have instructed a labor crew to leave only three or four. That's because he knows that he will come later and fruit-thin the block down to the desired yield. The reason he wouldn't leave that many shoots on with the hand crew is that would have required fruit-thinning by hand, and that's a $500-per-acre cost he tries to avoid. (Incidentally, Ashby farms only 1100 of French Camp's 1750 mechanically, as some of the wineries still want hand-farmed fruit.)

Leaving more shoots on the vines gives Ashby flexibility he clearly relishes. He doesn't have to guess as much how the vineyard is going to perform later on, because he knows he's going to get another crack at managing the yield when he does fruit-thinning. "It's like buying cheap insurance; we're taking the risk out," he says. "The real money (made through mechanical harvesting) is not in labor savings, it's in risk management."

Precise Yields Equal Profits

Sure, Ashby estimates that he is indeed saving $800 per acre on labor through mechanization. But by more precisely targeting yields he can profit even more. For example, the first year he went to mechanical farming in a big way was 2003, when he converted 400 acres. However, he was also hand-farming blocks of the same variety, Merlot, on the same ranch. The yield was 4.5 tons per acre on the hand-farmed blocks, but because the machine-farmed vines were nicely balanced with a higher crop load he was able to get 7.5 tons per acre. He got the same price for the grapes, $1200 per ton, so the machine-farmed blocks produced a tidy $3600 more per acre. "The labor savings are nice," says Ashby with a smile, "but consistent yields are more important."

Mechanization doesn't mean there aren't several workers. In fact, it takes a crew of three trained employees. In addition, in Hank Ashby's refined system, there is at least one more person coming up behind the unit to take measurements.

Ashby emphasizes that his system is not for everyone. In fact, he says the system only works if you're assured of getting a certain minimum price per ton. "It's not necessary if pricing makes quantity more important than quality," he says.

One way Ashby attempts to assure quality is by having an employee follow behind the unit, monitoring the work the crew is doing, a crucial component to his system. The worker takes a variety of measurements depending on what task is being performed, such as counting buds, shoots, or weighing fruit in particular sections that have been previously mapped out with a GPS unit so that the samples are always taken in the same places. It's important because every field has strong spots and weak spots, but that doesn't mean that a person will be charged with doing the job in future years. "Some day with GPS we'll use aerial photos from previous years and tell the machine to slow down and speed up depending on the crop in a given area," Ashby says wistfully, "and we'll have optics to see how much vegetation we're encountering." ●

E-mail questions or comments about this article to deddy@meistermedia.com.

Winery Driven

AS one of the inventors of the Morris-Oldridge Vineyard Mechanization System, University of Arkansas Professor Justin Morris obviously is a tad optimistic — OK, maybe even biased — about his baby's future. But what he has to say makes sense when you look at where the grape-growing business has been headed in recent years. "It's winery-driven," he says.

Actually, the changes in the industry aren't unique to grape growing, or even agriculture. Call it "Wal-Martization," for lack of a better term. As the retail giant gets bigger by the day, it increasingly calls the shots in any number of industries. When Wal-Mart says "Jump!" well, you get the picture.

Now in the winegrape business the same type of thing is occurring, albeit on a smaller scale. Increasingly large wineries are calling the shots, dictating to growers everything from tonnage per acre to harvest time. Morris believes his system aligns with that business model perfectly.

He says that his system allows the grower to achieve maximum quality through balanced cropping. You get balanced vines producing top-quality grapes, and you get the tonnage you desire every year. "You will get exactly the tonnage your winery wants, and it allows you to do it mechanically," he says. "You *could* do it by hand, but it's impractical for large vineyards."

In fact, Morris believes, again with the caveat that he has, after all, more than a passing interest in the success of his system, that growers should definitely be aware of it. "Because the wineries *will* become familiar with this system," he says.