



Search Site

SEARCH

You are logged in as **Jim Gordon.** [LOG OUT »](#)

[Headlines](#) | [Features](#) | [Columns](#) | [Newsbriefs](#) | [Calendar](#) | [Print Edition](#) | [Subscribe](#) | [Directory/Buyer's Guide](#) | [Advertise](#)

## FEATURES



Wine Review Weekly

A compilation of wines reviewed each week by leading wire service and major daily newspaper wine columnists

[READ »](#)

September 2007 Issue of *Wines & Vines*

[SUBSCRIBE »](#)

### Flying Computers

How unmanned aerial vehicles could aid vineyards

by **Jim Gordon**

## HEADLINES

- Iowa Backs its Wine Industry
- Custom Crush Boom in Napa
- Cline Cellars Adopts 'Extended Text' Label
- Varietal Winegrape Juices Introduced

[MORE »](#)

## FEATURES

- **Winery & Vineyard Economics**  
Why Solar Makes Sense
- **Growing & Winemaking**  
When Brett Goes Bad
- **Sales & Marketing**  
Case Studies in Exporting
- **Regional**  
Extreme Viticulture

[MORE »](#)

## NEWSBRIEFS

- **California**  
Morlet joins Vineyard 7 & 8
- **Northwest**  
Washington Convention in February
- **Central**  
Northeast Texas vintners form wine trail
- **East**  
New York funds winery websites
- **Suppliers**  
Pro Mach acquires Markor

[MORE »](#)



A glimpse of the future? Dave Linden and Jun Yu on the airstrip at San Bernabe vineyard in California for a NASA-sponsored flying computer demonstration.

The scene on the private landing strip at Monterey County's San Bernabe Vineyard resembled a model airplane club's competition day. That is, if the club were sponsored by NASA and had the use of battlefield-style military radar and a FEMA mobile computer command center.

The day's business was to demonstrate the capability of a small, unmanned aerial vehicle (UAV) to survey remote pipelines and detect maintenance needs, using aerial photography and a live computer linkup. But since the demonstration took place over approximately 5,000 acres of grapevines near King City, Calif., the potential applications for vineyard management were obvious, at least to the man who donated use of the airstrip for the day.

"I'm always interested in how we can do things more efficiently and with less human involvement," said Claude Hoover, president of San Bernabe. With a crop he valued at \$20-30 million per year, and located in a frost-prone area, San Bernabe would benefit from early frost detection, Hoover said. "Instead of having three or four guys driving around in pickups with thermometers, if we could get real-time temperature readings from a UAV, we might be way ahead."

Hoover said San Bernabe has frost protection via overhead sprinklers, but it's expensive to turn them on. The vineyard also has numerous weather stations, but they're spread out. Detailed

### HIGHLIGHTS

- Unmanned aerial vehicles (UAVs) have obvious potential for vineyard applications, including frost detection.
- UAVs are ideal for jobs that are one or more of the three Ds: dirty, dull or dangerous.
- At present, the Federal Aviation Administration does not allow night flights of UAVs for commercial purposes.