

**Viernes 14 de enero
a las 13.00 horas
SEMINARIO**

Protecting Crops from Frost Damage

Richard L. Snyder

More economic losses occur due to frost damage in the United States than to any other weather related hazard. For example, California citrus growers lost \$420,000,000 in 2008, \$591,000,000 in 1998, and \$800,000,000 in 1990. In addition, there has been many millions of dollars in losses to frost damage to wine grapes, walnuts, and almonds in California in recent years. As a result, considerable effort is expended to reduce damage through frost protection. The cost effectiveness of various methods depends on the frequency of occurrence, cost of the production method, and the value of the crop. Generally, passive freeze protection (e.g. managing cover crops, soil moisture, ice nucleation, etc.) is easily justified. Passive protection includes practices completed before a frost night that reduce the potential for damage. Active protection includes energy intensive practices (e.g. heaters, sprinklers, wind machines, etc.) that are used during the freeze night to replace natural energy losses. In this seminar, basics concepts and the efficacy of the several protection methods will be discussed.



CE Biometeorology Specialist, works in the University of California (Davis), in the Department of Land, Air and Water Resources. His most important investigations turn on Evapotranspiration measurement and modeling, crop coefficients, irrigation scheduling, water resources planning, frost protection of crops, general biometeorology, and agricultural climatology.

