

## **Estimating ET using scintillometers and satellites in an irrigated vineyard in the Costa De Hermosillo, Sonora, Mexico**

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**Abstract** Visible data from geostationary satellites may be combined with vegetation index data and Land Surface Temperature data from MODIS to provide estimates of incoming solar radiation and actual evapotranspiration at 1 km resolution over large areas. The methodology is evaluated using data from a optical scintillometer at an irrigated vineyard site in northwest Mexico. In general, the satellite-based estimates for *ET* are about 11% lower than the *ET* estimated with the scintillometer. These results are similar to those obtained for sites in Africa using Meteosat data, and the errors compare favourably to other methods to estimate *ET* using satellite data.

**Key words** evapotranspiration; geostationary satellite; large aperture scintillometer

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