Evaporative Stress Index (ESI) provides early warning of developing crop stress and depleted soil moisture reserves, based on remotely sensed canopy/soil temperature.

In summer 2015, NOAA will begin operational production of daily ESI updates over CONUS in support of the U.S. Drought Monitor and NIDIS.

Global ESI data are being incorporated into the GEOGLAM Global Crop Monitor Tool, which provides monthly updates on global crop condition.
Multi-Sensor Evapotranspiration

International geostationary constellation

NOAA Geostationary Operational Environmental Satellites

GOES - West

Low ET  High ET

GOES/MODIS/Landsat fusion

Landsat  Aircraft
Launch of the NASA Soil Moisture Active/Passive Mission

- Definition of target
- Spatial scaling
- Instrument test-bed
- Field campaign design
Global Soil Moisture Monitoring

3-day, global, 0.25° root-zone soil moisture products posted at:
http://www.pecad.fas.usda.gov/cropexplorer/

Delivery to GEOGLAM Tool