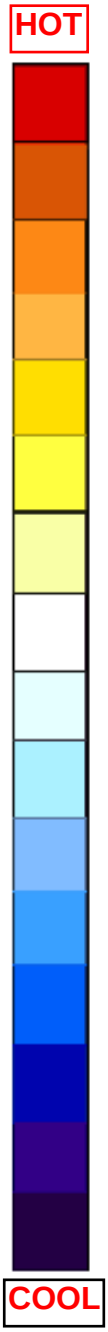
STRESSMAP™

STRESSMAP™ defines areas of different plant leaf temperatures. Plant leaf temperatures indicate the amount of plant stress. The lower the plant leaf temperature, the lower the plant stress. The higher the plant temperature, the more stressed the plant.



Any field condition that affects plant stress will show up as a change in one of the sixteen different color categories on the **STRESSMAP™**. Each color change represents a change in temperature of 1^{o} F.

Field variables that INCREASE plant stress are low moisture availability, plant disease, weed or pest stress, salinity or alkalinity, soil compaction, cold water shock, poor or excessive drainage, reduced crop cover, or physiologically maturing plants. Field variables that can increase OR decrease plant stress are irrigation distribution uniformity problems, plant variety, rootstock, and soil type infiltration rate and moisture release characteristics.

The best time to fly a crop for plant stress information is before an irrigation and just prior to a crop stress sensitive stage like bloom, sizing or harvest.

Characterize the stress level of the plants by selecting an area from the **STRESSMAP™** image that is representative of a color or of the middle color in a group of colors and check the soil moisture. If the amount of moisture present does not correspond with the relative stress (i.e. available moisture but stressed plants), look for any one of the other causes of plant stress.

Once the causes of plant stress have been characterized, you have the information to:

- Modify irrigation schedules to improve stress uniformity and crop quality
- Analyze irrigation system distribution uniformity
- Select representative irrigation scheduling monitoring sites
- Prioritize harvest scheduling and define selective harvest areas
- Detect and diagnose early plant disease and insect infestations
- Manage crop stress during crop stress sensitive growth stages
- Save water and manage nutrient leaching

611 El Toro Way
Davis, CA 95618

agrecon@omsoft.com
Phone: 530-758-0579
Fax: 530-758-0576