



# ENVI<sup>®</sup> CROP SCIENCE

## FOR PRECISION AGRICULTURE

### UNLOCK THE VALUE IN YOUR IMAGERY

#### BENEFITS

Ingest any type of data from any sensor

Monitor crop health down to the individual plant level

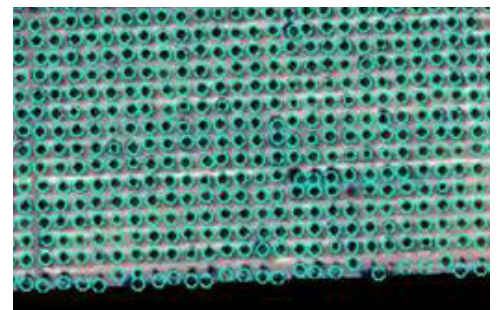
Detect plant stress and target specific field locations for remediation

Monitor crop growth for harvest and yield predictions

Tight profit margins are nothing new to growers. Fertilizers and crop protection chemicals can easily eat up half of the seasonal expenses for an agribusiness. On the other side of the equation, crop losses due to disease and pests can take a big bite out of yield. With a large portion of budgets tied up in fixed costs, remote sensing applications are being looked to as a way to loosen the margin squeeze.

Imagery from satellites, fixed-wing aircrafts, and Unmanned Aerial Vehicles (UAVs) is being heralded as the next frontier in precision agriculture. In order to realize the potential that imagery offers, advanced analysis tools like ENVI need to be used to extract actionable information. ENVI Crop Science now puts the information available from these scientifically proven approaches into the hands of anyone, regardless of their prior experience with remote sensing.

ENVI Crop Science analyzes multispectral data to provide extensive crop health information. This industry-changing solution offers a window into the growth cycle to enable early stress and disease detection so interventions can be implemented before a crop sustains lasting damage.



*Crop Counter tool results for a grape vineyard. Image data: PLEIADES © CNES 2016, Distribution Airbus DS.*

## HIGHLIGHTS

Enabled for desktop or cloud environments, ENVI Crop Science allows analysis to be automated – putting actionable information into the hands of decision makers in the field.

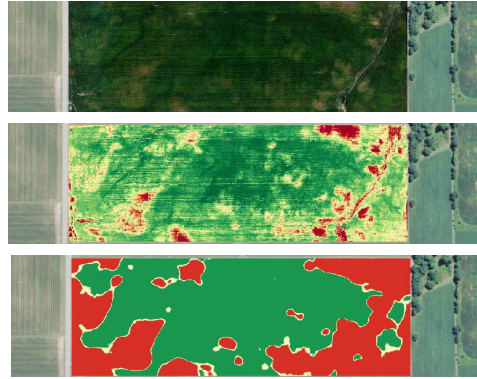
Create maps and reports from high-level views of fields, all the way down to individual plant health information.

Real-time preview function offers the ability to adjust parameters prior to running the analysis.

Whether you're a grower interested in boosting yields, an agronomist who wants to scientifically explore the data, or a GIS analyst who needs to present easy-to-interpret results to end users, ENVI Crop Science has something to offer.

### HOTSPOT ANALYSIS

Using proven geospatial statistical analytics, the Hotspot Analysis tool in ENVI can determine regions of a field that require attention. The results from hotspot analysis deliver the information needed to apply prescriptive farming techniques and not waste fertilizer or pesticides on regions where the field is vigorous.



*Starting from the top image, this progression shows the field outline, the Normalized Difference Vegetation Index, and the Hotspot analysis for the same field.*

### CROP COUNTER

With ENVI's Crop Counter tool, users can accurately extract the number, position, and size of the individual plants in a field to predict yield. This tool also can be used to access the health of individual plants, visualize the results relative to other plants, or view the results as absolute values.

### FOR MORE INFORMATION:

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