

IMAGERY AND ANALYTICS

Chlorophyll Index

While traditional NDVI imagery measures canopy density, the next-generation Chlorophyll Index assesses canopy quality—offering an accurate representation of plant health throughout the season. It's a powerful resource for nutrient management, both for in-season adjustments and season-to-season planning.

Go beyond density measurements to assess the quality of your crop canopy.

Common uses

- Identifying and addressing nutrient deficiencies in-season
- Informing early yield predictions in row crops
- Assessing fertilizer uptake with nitrogen ramp experiments
- Improving distribution uniformity
- Generating prescription maps for variable rate applications
- Informing targeted tissue sampling

How it works

Ceres Imaging's Chlorophyll Index incorporates four narrow bands in the visible/near-infrared that are particularly sensitive to differences in leaf chlorophyll content: red, green, red-edge, and near-infrared. This proprietary combination of wavelengths is closely correlated with the nitrogen content of the leaves and relative health of the crop canopy.

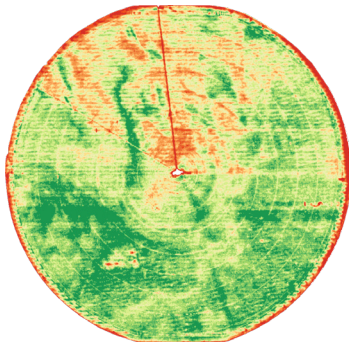
Unlike NDVI, chlorophyll imagery does not become "saturated" as the crop canopy matures. This allows the Chlorophyll Index to provide meaningful insights on plant health all throughout the season. Growers typically find the imagery most useful between 80% canopy closure and the early phases of crop senescence. Chlorophyll Index patterns from late July and August are highly correlated with final crop yield in the fall.



FROM IMAGERY TO ACTION

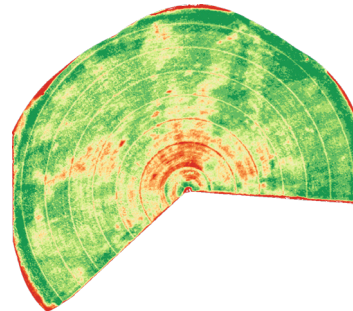
High-resolution multispectral imagery is only the beginning. Our analytics tools help you interpret your data—translating what you can see in your imagery into what you can do about it.

The Chlorophyll Index is included standard in all Ceres Imaging service packages.



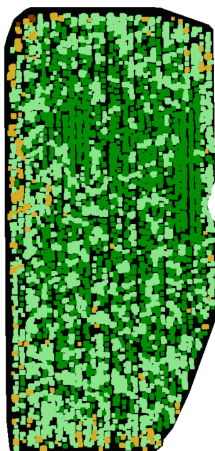
Uniformity issues

Chlorophyll imagery reveals correctable irregularities not visible to field scouts.



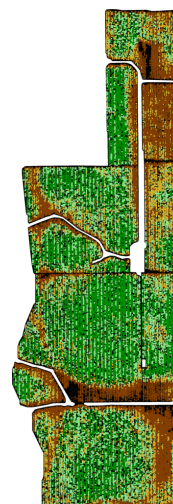
Tissue sampling

Identifying stressed areas in imagery can guide a targeted tissue sampling strategy.



Plant stress

In orchards, the Chlorophyll Index allows growers to optimize stress at the individual plant level.



Nutrient deficiencies

In this field, nutrient deficiencies resulted from alkaline soil and an irrigation equipment failure.

