



MSU Agriculture Innovation Day

Focus on Fruit and Vegetable Technologies

Drone Technologies: What Growers Need to Know

Drone uses in agriculture

Many remote sensing options are available for gathering information about your plants.

Drones are most useful for activities where multi-date high resolution imagery is required over relatively small acreages (e.g. 5 – 50 acres).

Drones are regulated

Using drones on your farm is a government regulated activity that must conform to existing regulations.

Regulations are set forth by the Federal Aviation Administration.

There are options for ensuring conformity with existing regulations, such as obtaining a FAA Remote Pilot Certificate or flying under public aircraft rules (Universities, State/Federal Government.)

Match sensors to the application

Drones may be equipped with a variety of imaging sensors.

Matching each sensor to an appropriate application is essential if data collected is to be useful. For example:

Multi-spectral Sensors: Quantifying plant health

Thermal Sensors: Assessing cold air drainage, locating stressed plants

Natural-Color Sensors: Field scouting, plant inventory and height measurement



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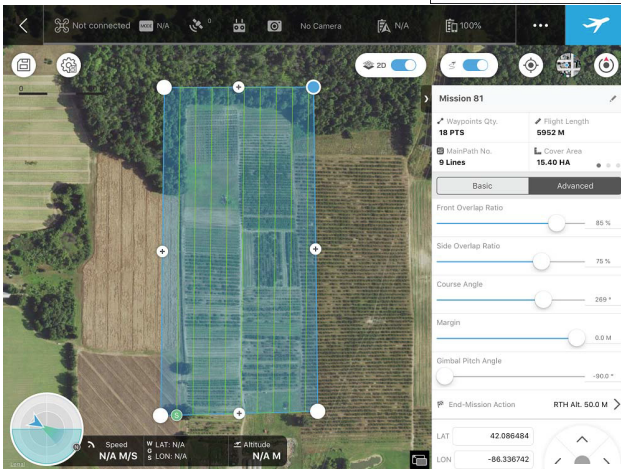
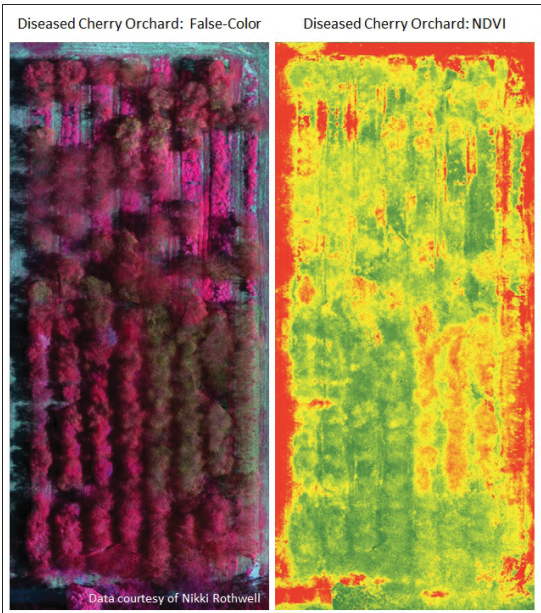
Drones are a tool in the farmer's toolbox

Imagery collected by drones is used to identify and quantify what is occurring in fields.

The different types of drone imagery information that can be collected relates directly to the degree of its usefulness.

What's in the future?

Drone applications in agriculture are growing every day. Evolving drone & sensor technology paired with geospatial techniques is on the horizon.



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