

# LAND VIEW



Drones

Sensors

Software



## INSPIRED AG 2

The most versatile on-farm NDVI package

# Drone

Upgraded propulsion system  
15" props  
max speed 94 km/h  
27 min flight time

Magnesium aluminum composite shell,  
carbon fibre arms, transforming design

Reliability through redundancy:  
dual battery, dual-signal propulsion  
system, dual barometer, dual IMU

Forward, upward and downward  
obstacle avoidance and terrain  
detection / positioning

Dual self-heating intelligent 98Wh batteries  
Fly in temperatures down to -20°C  
Flight time 27 minutes in ideal conditions

Vision-sensing 2-axis FPV camera

Quick-release camera connector  
swap between RGB and NDVI

X4S camera: 1" sensor, 20 MP  
4K 60fps, 5.2K 30fps  
other camera options:  
X5S, Zenmuse XT thermal

## DJI Inspire 2: Power Beyond Imagination

*The Inspire 1 was a revelation. The Inspire 2 improves everything about it.*

# Drone

Our most popular model for the 2015-2017 crop years was the DJI Inspire 1. Its design was revolutionary, with its transforming landing gear that gave the camera the ability to pan freely without ever getting a propeller in the video. By combining the resulting low center of gravity with its high-end propulsion system, the Inspire 1 was extremely reliable even in high winds. With the Inspire 2, DJI took the best of its predecessor and improved every facet of the aircraft by adding redundancies in dual batteries, barometers and IMU's. And then they increased the propulsion system, so it's top speed of 94 km/h will help it handle higher winds. It also facilitates the quick swap of cameras, allowing us to again package two both an RGB and an NDVI camera in our Inspired Ag 2 package for 2018.

We have never sold an Inspire that didn't immediately create a DJI fan. Its specs make it a versatile commercial UAV.

## Aircraft

Model	T650
Weight	3,440 g (incl props and two batteries)
Max Angular Velocity	Pitch: 300°/s Yaw: 150°/s
Max Tilt Angle	P-mode: 35° (FVS enabled: 25°) A-mode: 35° S-mode: 40°
Max Ascent Speed	P-mode/A-mode: 16.4 ft/s (5 m/s) S-mode: 19.7 ft/s (6 m/s)
Max Descent Speed	Vertical: 13.1 ft/s (4 m/s) Tilt: 13.1-29.5 ft/s (4-9 m/s)
Max Wind Resistance	10 m/s (36 km/h)
Max Flight Time	Approx. 27min (with Zenmuse X4S) (hovering at sea level with no wind)
Motor Model	DJI 3512
Propeller Model	DJI 1550T
Operating Temperature	-20° to 40° C
Diagonal Distance	605 mm (Landing Mode)
Max Speed	94 km/h (Sport mode)

## Intelligent Flight Battery

Model	TB50
Capacity	4280 mAh
Voltage	22.8 V
Battery Type	LiPo 6S
Energy	97.58 Wh
Net Weight	515 g

## Flight Systems & Sensors

Downward visioning system (up to 10 m altitude)  
Upward infrared sensor (range 0-5 metres)  
Forward vision system (range 0.7-30 metres)  
Redundant dual barometers  
Dual IMU (inertial measurement unit)

## Remote Controller

Lightbridge technology (2.4 & 5.8 GHz switching)  
Controllable range: 7 km  
Two sticks tuned for sensitivity and delicate maneuvers  
Master-slave mode (slave controller for camera)  
Ports: extension, HDMI, USB

## Intelligent Flight Modes:

- **Positional**
- **Attitudinal**
- **Sport**
- **Beginner**
- **ActiveTrack**
- **Trace**
- **Profile**
- **Spotlight Pro**
- **TapFly**
- **Tripod**
- **Draw**
- **Waypoints**

# Sensors

The Inspire Ag 2 is by far our most versatile NDVI farm package.

The ability to create Normalized Difference Vegetation Index (NDVI) maps makes it a much more valuable crop health assessment tool than any UAV with a mere RGB camera. But who wants to do without up-close crop scouting pictures and those amazing harvest videos? Landview's package comes with both near-infrared and visible-spectrum cameras, for both full-field crop mapping and spot inspections. When mapping from 400' altitude, the Inspire 2 will map approximately a quarter-section (160 acres) in one flight.



Get up close with the RGB camera

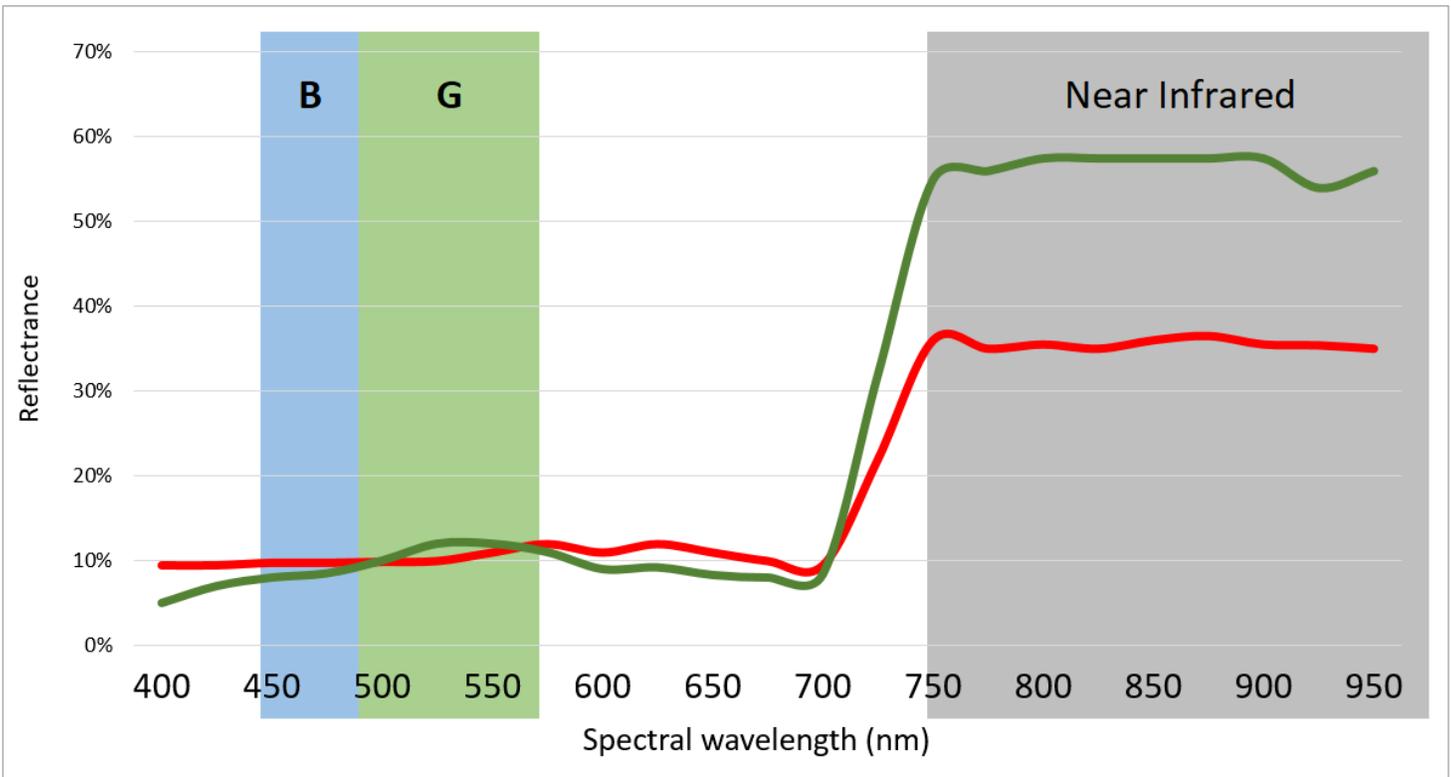
**two cameras included, swappable in seconds**

*both the RGB & NDVI camera are hi-res 20 MP with 1" sensor*

# Sensors

Normalized Difference Vegetation Index (NDVI) has been in active use on satellites for many decades for remote sensing of plant health. It is now possible to use NDVI and other vegetative indexes on lower altitude drones, improving the resolution and timeliness of the resulting images. The NDVI camera included in the Inspired Ag 2 has a red-light blocking filter to create a three-band image (Near Infrared–Green–Blue). This is used by the included DroneDeploy or FarmSolutions software to create an Extended NDVI “Plant Health” map.

Generally speaking, red areas in those maps show non-vegetation or poor growth, while dark green areas show the areas with the most actively growing plants in that field or pasture. This is based on the fact that healthy plants generally reflect somewhat more green and significantly more near-infrared light than do unhealthy plants. This ENDVI map provides a cost-effective overview of relative crop health across an entire field.



$$\text{ENDVI} = \frac{(\text{NIR} + \text{Green}) - (2 * \text{Blue})}{(\text{NIR} + \text{Green}) + (2 * \text{Blue})}$$

# Software

Landview packages include the most suitable software for the sensor and drone. You won't need to experiment with different systems to get started.

The Inspired Ag 2 has an NDVI camera, which will disclose more variability in crop growth than is possible with an RGB (visible-spectrum) camera and help make your crop scouting more effective and efficient.

## Map Pilot (Business Version)

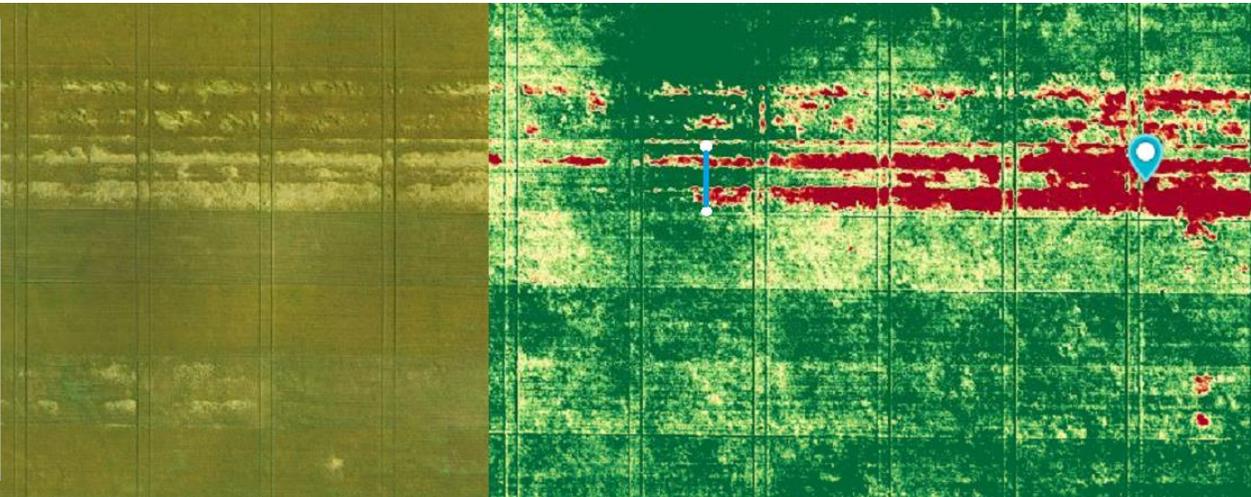
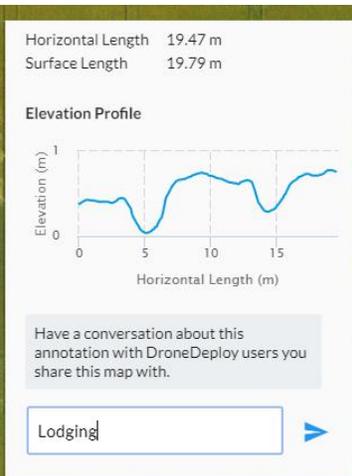
Program the Inspire 2 to take pictures in a lawnmower pattern across an entire field. The Business edition includes unique features to keep the drone a given altitude above terrain for the hillier fields, as well as the ability to fly linear missions.

*Map Pilot runs on an iOS device ... but there are free Android options.*



## DroneDeploy or FarmSolutions

After flying a mission with Map Pilot, the Inspire 2 will have a micro-SD card filled with hundreds of images of the field. Our cloud-based options let you turn those pictures into extremely high-resolution maps (orthomosaics). We provide you with two great options, both of which make the process incredibly simple.



DroneDeploy has a beautiful interface and simple sharing tools. Their workflows are preferred by most first-time mappers, less frequent users, or those wanting Digital Elevation Models. FarmSolutions by Dronifi provides greater ability to analyze your fields by comparing flights or filtering results to identify critical areas. By layering and filtering, FarmSolutions lets you extract more agronomic information. We encourage customers to evaluate both and then provide a 6-month subscription to cover their first crop year.

## Easily go from Pictures to Map Data

*Remote sensing of vegetation provides insight into your crop*

# Package Details

More than just drones. All Landview packages include everything required for your first crop year ... heavy duty case, extra batteries, and software for mapping functionality. For the 2018 crop year, the Inspired Ag 2 package is priced at \$9,950 + tax and includes all of the following, plus our support in getting the system working for you:

## Drone

### Base Aircraft Package

- DJI Inspire 2
- Remote controller
- Battery charging hub
- Four TB50 batteries
- Eight 1550T propellers (15")
- 16 GB micro-SD card
- Heavy-duty drop-in case

### Unique Package Inclusions:

- Tablet sunshade
- Landing pad (5' diameter)
- MicroSD reader for iOS, Android & USB
- Shipping included
- **One year of telephone support from Landview,** from initial orientation to NDVI mapping workflows

## Sensors

- **Zenmuse X4S RGB** – 20 MP, 1" sensor, RGB
- **Zenmuse X4S NDVI** – Near-Infrared, Green, Blue  
*(ask us about alternative wavelength conversions)*

## Software

- **Map Pilot** (Business Edition)
- Six months subscription to **DroneDeploy** (Pro)  
OR **FarmSolutions** (Silver)



**\$9,950 + tax**

Get 30% off Ag Drone School  
with this package

## Questions?

Give us a call. We really prefer to answer all your questions *before* you buy anything. Every farm is different and there is a system perfectly suited to your operation and budget.

## Need training?

Our **Ag Drone School** will be in a community hall near you. In two very full days, we provide:

- the knowledge requirements for commercial flights under Transport Canada circular TP15263
- operational training from first takeoff to complete mapping missions (beginners will feel most welcome)
- agricultural remote sensing (from theory of multispectral imaging to hands-on NDVI map creation)

## Need higher accuracy for topographic mapping?

Ask us about the Propeller Aeropoints or other Ground Control Point (GCP) workflows. The Inspired Ag 2 package will produce digital elevation and 3D models, but with a little extra work you can get much higher accuracy.

## Ready to buy?

Our packages are assembled from numerous suppliers, so lead times can be a few weeks. Order well in advance of seeding so that you'll be ready to take your crop management to the next level this spring.



See your farm in a new light