General Specifications

Crop	Corn
Flight Moment – Phenological Stage	V2 – V3
Recommended Flight Time Interval	10am – 4pm
Field Operators Needed	1
UAV Compatibility	Phantom 4 Pro version 1 & 2 - Mavic 2 Pro
Recommended Device	Asus ZenPad 3s; Motorola Moto G6 Plus
Field Scalability	15 has/day	37 acres/day
Processed Plot Size	1 – 70 m2	10 – 750 ft2
Customer Input Requirements	Field Maps; WebApp-Trial Demarcation
Maximum Photos per Survey Upload	6,000 Photos
Data Result	Number of plants per plot*
Data Quality	6 - 10 % per Row; +/- 3 Plants 90% Rows**
Data Delivery	Spreadsheet via mail
Data Delivery Time	3 weeks after trial demarcation

*Customer can select which rows of the plot they want to receive data from (e.g. distinguish between central and adjacent rows).
** Difference of plants is considered for plots of 30 plants per row.

Stand Count Detection

Range	Plot-Row	Count
14	6	-
14	7	-
14	8	-
14	9	-

Corn Stand Count result delivered is based on the number of corn plants counted on each row of interest within a plot

Field Work Specifications

1. Scalability

Sector Size (Has)	1	2	3	4	5	8	10	12	15
Sector Size (Acres)	2.55	5	7	10	12	20	25	37	37
Number of Flight Missions	1	2	2	3	4	6	7	8	10
UAV Flight Time (Minutes)	40	40	40	40	40	40	40	40	40
Markers Placement & Removal (minutes)	25	50	50	75	100	150	175	200	250
Total Field Work	1.5	2	2	2.5	2.5	3.5	4	4	5

*To ensure field scalability as detailed above, there should be enough batteries available to avoid dead time because of battery charge.
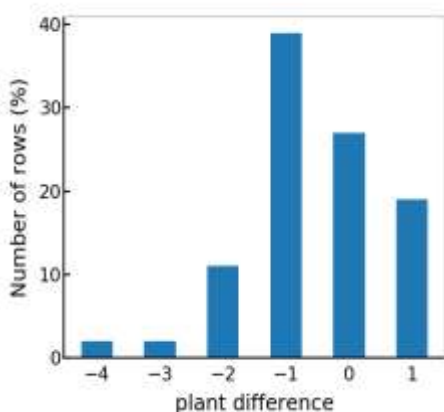
2. Flight configurations

Flight Configuration	# 1
Altitude (meters)	20
Overlap (%)	80
GSD (cm/pixel)	0.55

3. Flight capacity per day

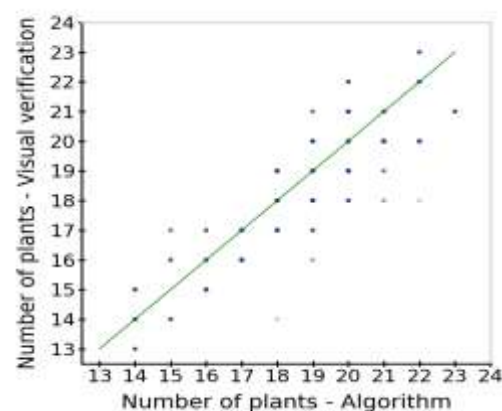| Hectares	Acres	2-row Plots	4-row Plots
15	37	16,000	8,000

Data Quality Specifications

Difference Distribution	Cumulative Difference Distribution	Algorithm vs. Field Data Correlation
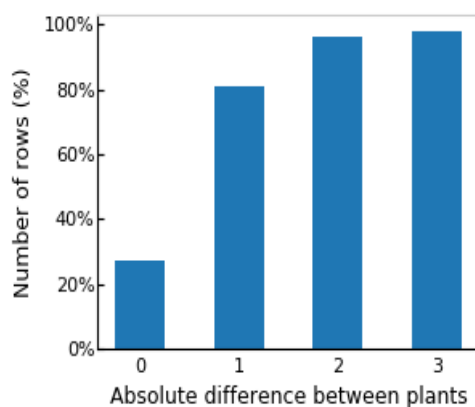
Three operators perform manual verifications on a set of plot-image cutout to compare visual stand count on images and EIWA's algorithm.

Eiwa

Service Considerations

| Plant conditions | | | Plot conditions | | Weather Conditions |

✅ **Appropriate condition**

❌ **Small plants:** Low quality

❌ **Large plants:** Low quality

❌ **Weeds:** Lost data

❌ **Smashed plants:** Lost data

❌ **Dark images:** Low quality