



Case Study 1

Predicting future corn acreage with CropScanTM

How Corteva used CropScan™ to predict corn acreage ahead of the season

The Challenge

Accurately predicting spring corn acres nationwide, across Pakistan, three months before the start of corn sowing.

Historical corn acreage can vary widely, due to multiple factors like competing crops, regional farmer sentiments and weather. This meant that corn acreage predictions could not be made accurately on historical trends.

The Solution

Multiple years of CropScan™ was used to identify at field-level, nationally:

- Wheat fields in fall, where spring corn cannot be sown, as seasons overlap
- Potato fields in fall, where the conversion to spring corn is highly likely
- Fields where crop rotation between spring corn and competing spring crops always takes place, and is highly likely to happen again

Using this Farmdar predicted spring corn acreage potential at field, village, municipal, district and national level. Corteva combined this with information from their teams on farmer sentiments to predict corn acreage.

The Result

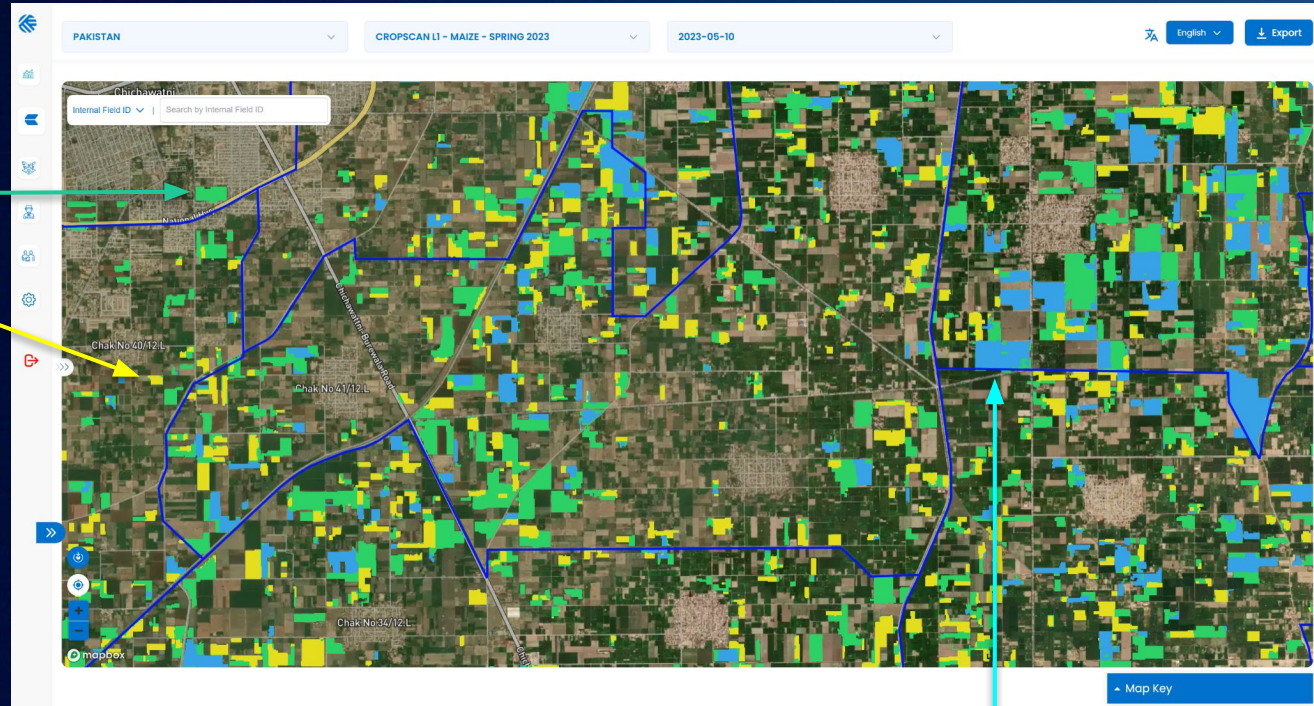
CropScan™ coupled with Corteva's teams' knowledge predicted that spring corn acreage would reduce by 30–35% to a range between 938k–1,010k acres.

This allowed Corteva to take quality decisions based on robust data not perceived market sentiments. Such as:

- Optimizing seed import quantities
- Optimizing channel strategy
- Optimizing downstream distribution
- Early sales team positioning
- Earlier market preparation

Post spring corn sowing, CropScan™ was carried out showing 967k acres of corn, within the predicted range.

The data was available spatially and statistically



Spring corn
'23 season

Fall wheat '23 season,
competing with spring
corn '24 season

The Result

CropScan™ showed significant competition from fall wheat, and coupled with Corteva's teams' knowledge accurately predicted, 3 months ahead of corn sowing that spring corn '24 season acreage would reduce by 30-35% to a range between 938k-1,010k acres.

Fall '23 potato, with high
likelihood of conversion to
spring corn '24.



Case Study 3

Pilot identifying rice crop stages to determine and respond to demand for CP products

How Corteva used CropScan™ to determine Pexalon demand and respond at optimal time to sell it to rice farmers

The Challenge

Rice is sown all year round in the Mekong Delta in Vietnam. Also, the size of rice fields is very small, often below one hectare.

Corteva's CP teams wanted to identify these rice fields and their growth stage, in order to determine the optimal time to target marketing and sales initiatives for Pexalon, aimed at rice farmers.

The Solution

CropScan™ was deployed monthly to determine rice fields.

Sowing analysis was carried out to determine the growth stage of individual rice fields.

The Result

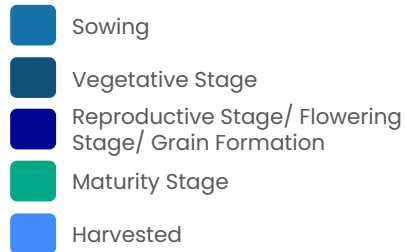
85% field validated accuracy was achieved in identifying rice stages.

This allowed Corteva to:

- Optimize marketing and sales campaigns by identifying where demand would emerge
- Position field teams strategically based on crop stage distribution
- Identified targeted sales opportunities based on rice stages
- Optimized field team movement and on-ground execution
- Ensured retailers stocked the right products, at the right time, in the right quantities

Rice growth stages identified using CropScan™

Field-level rice crop stage distribution across target area in Mekong Delta, Vietnam.



Total:



Innovation (Beta)

Development of a Brown Planthopper (BPH) risk prediction model using climate data, wind direction and crop stages to classify high, medium and low risk zones for targeted product deployment.





Case Study 4

Engaging Pasban farmers with YieldPro™

Engaging Pasban Farmers whilst building precision agriculture capacity in Corteva field teams

The Challenge

Increase engagement and loyalty across Corteva's Pasban farmers by driving value for them, through the deployment of precision agriculture across their farms.

Leverage Corteva's brand and field teams, so that Pasban farmers stay directly connected to Corteva.

The Solution

White labeling of YieldPro™, deployment of precision ag reports, with farmer visits to explain insights and offer recommendations:

- Productivity zones – showing high, medium and low productivity areas within fields
- Plant health – showing germination success and ongoing health of crops
- Plant stress – showing areas under pest and disease pressure
- Highlighting precise areas inside field for scouting
- Capturing all findings, feedback, and actions digitally

Strong focus on capacity building of Corteva's team, with structured and guided training program on using YieldPro™ for field digitization, crop insight interpretation, farmer advisory and field task management.

The Result

70 corteva team members trained, including head of agronomy, agronomy team members, TSMs and demand generation teams.

550 pasban farmers across 55k acres digitized and engaged in the field.

30 reports deployed to each farmer, with 6 field visits per farmer across the season.

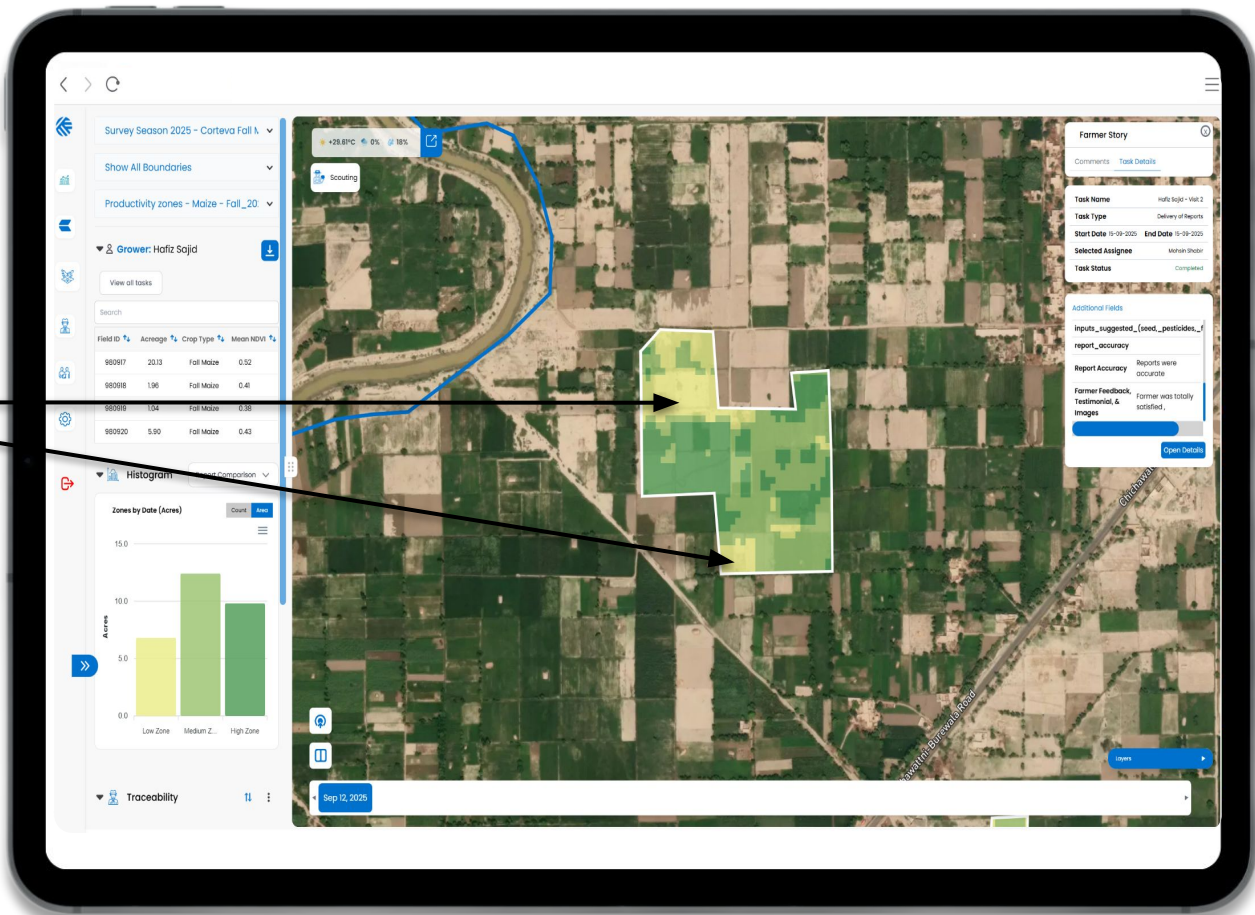
YieldPro identified interventions that created value for farmers and increased engagement:

- Productivity zones – e.g. prompted higher seeding rate in low productivity zones
- Plant health – e.g. identified areas for Zarbar application
- Plant stress – e.g. identified fall armyworm

Targeted scouting and on the spot findings built farmer trust and increased propensity to purchase Corteva CP products more readily. Early detection and targeted treatment input cost and yield losses.

Farmers used productivity zones to increase seeding rate in low productivity zones

Areas where higher seeding rate was implemented

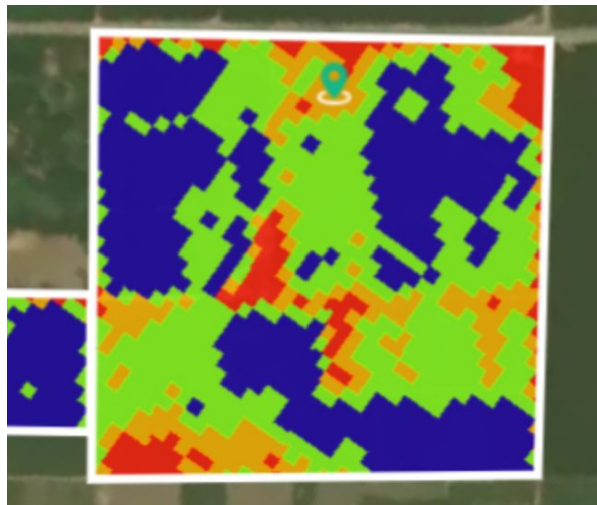


Farmers applied Zarbar based on plant health reports and saw improvements



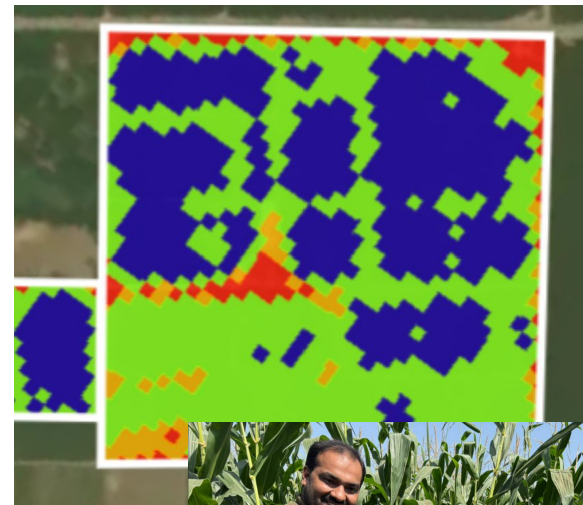
First visit:

AI generated pins identify areas of concern. Farmer is advised to apply Zarbar.



Second visit:

Post Zarbar application, field shows signs of recovery.



Third visit:

Area shows full recovery, and Farmer appreciates the teams support.

