

## Bayer® Smart Boundary

Introducing the Bayer AgPowered Service that enables detection of a farm activity field boundary within a provided set of Lat/Lon coordinates.

### What is Smart Boundary?

- The Smart Boundary AgPowered Service uses the longitude and latitude of a location known to be within a field.
- A date range for satellite imagery is then utilized (typically within a 2-week span).
- A farm activity field boundary is then returned.
  - Farm activity is defined as the area within a field that represents a planted crop as the result of a specific farm activity (i.e. planting).

### How does it work?

- After the user specifies a single set of LON/ LAT coordinates, the model employs satellite imagery and time series of agronomic activities to automatically delineate a field boundary.
- The customer is served a map layer of the predicted boundary.
- Sentinel 2 Satellite Imagery is utilized to determine the presence of a field/crop.
- Note: the quality of the result is dependent on clear skies during the 2-week period (i.e. cloud cover can impact the results)



Example of a Smart Boundary result.

### Supported Regions:

- Smart Boundary uses Sentinel 2 as a source for satellite imagery.
- As a result, the supported regions include areas of coverage from Sentinel 2.

### Use Case Thought Starters:

- *Regulatory/Sustainability reporting and action verification.*
- *Foundational field boundary creation for regions with no current automated options.*
- *Estimating yield, use for prescriptions or on farm product testing.*