Soil Stewards

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Salinity

- If the level of salts in the soil water is too high, water may flow from the plant roots back into the soil
- This results in dehydration of the plant, causing yield decline or even death of the plant
- 3 million acres of land across the prairies are impacted by visible salinity and up to 22 million acres are impacted by invisible salinity

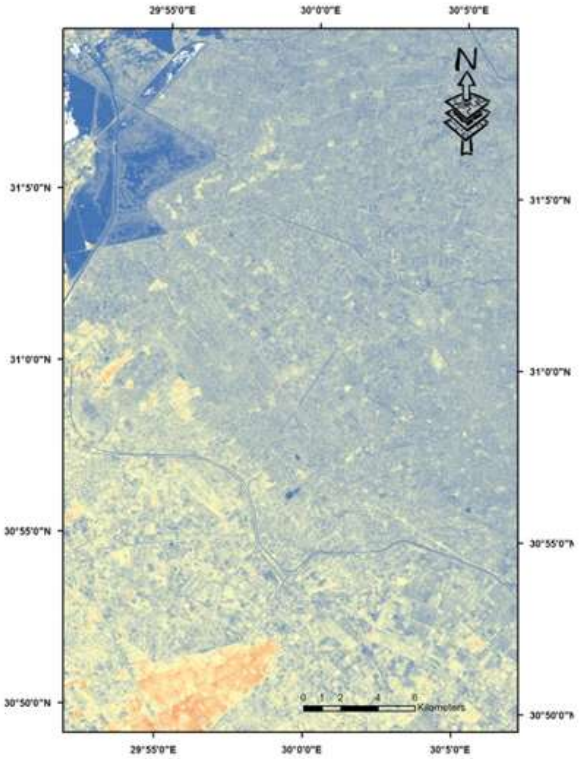
Problem

Soil salinity measurement is time/labour consuming and expensive for farmers

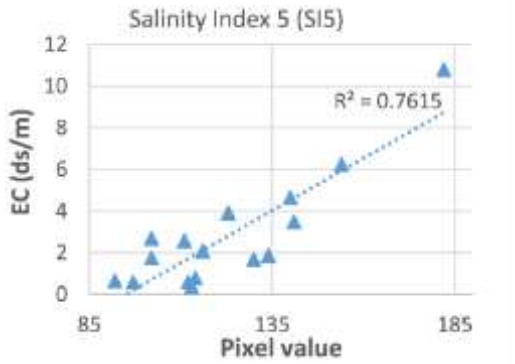
Traditionally, water and soil salinity are measured by

- Handheld Refractometer
- Hydrometer
- Conductivity meter

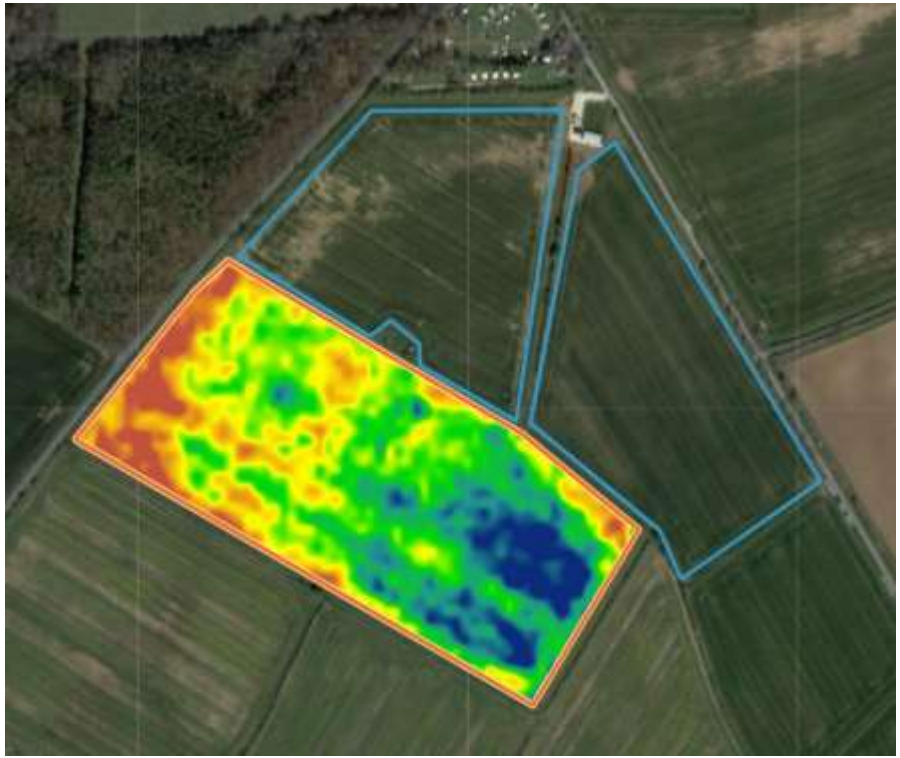
Solution



- Soil Salinity Mapping using Remote Sensing and GIS https://cdnsciencepub.com/doi/full/10.1139/geomat-2021-0015
- Add AI with satellite imagery processing



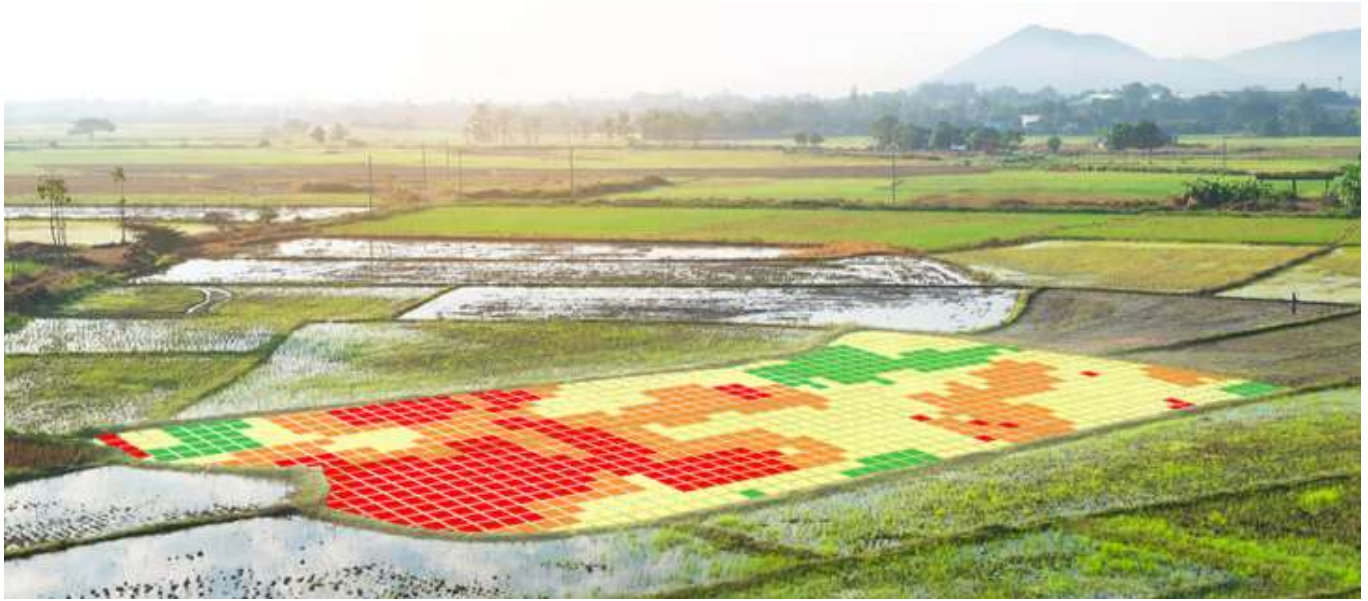
Solution



- Take a satellite image prior to seeding
- Existing soil monitoring probes provide single point salinity data into the AI model
- Provide a salinity map over the entire farmer's field

Benefits

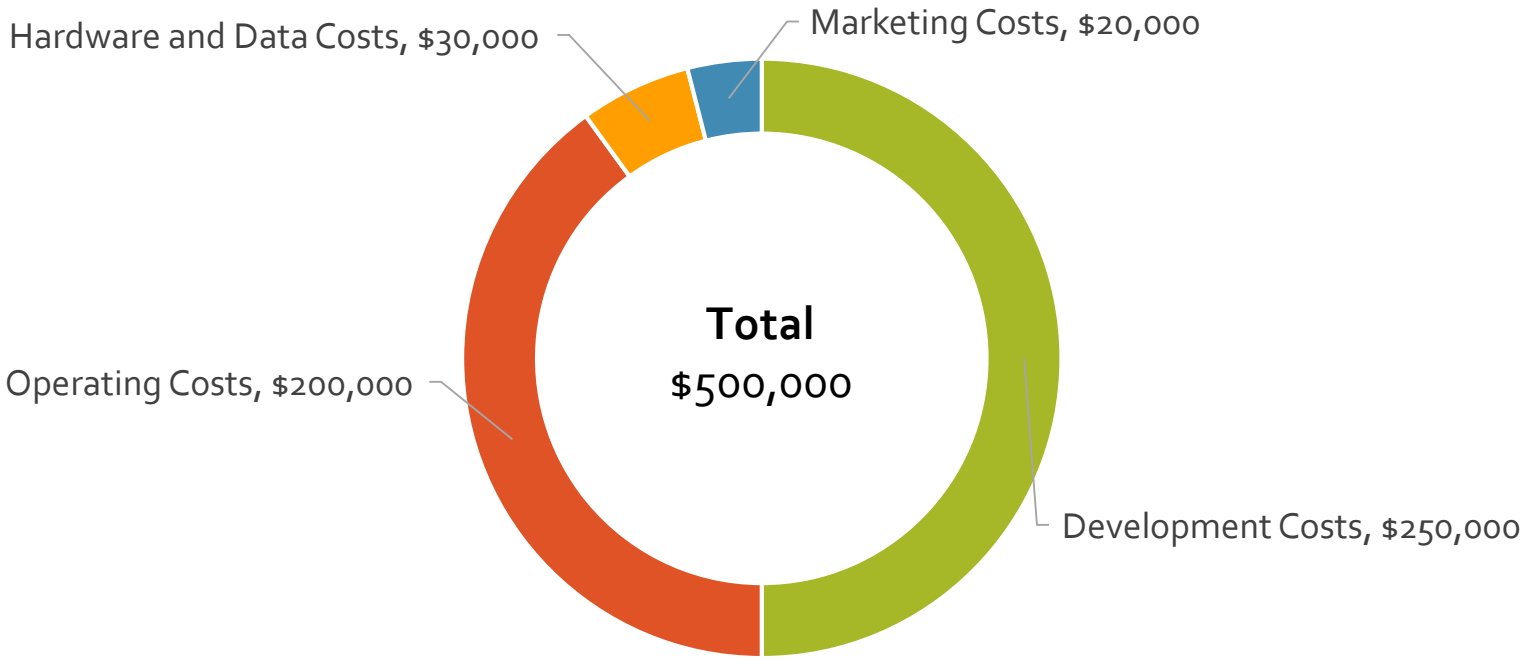
- Provides farmers with a salinity map of their fields at low cost
- Lets a farmer know when a previously poor performing field is no longer high in salinity and can be used for a cash crop



Pricing and Revenue

- Existing salinity mapping currently costs farmers $8-$12 an acre
- We can provide our solution for as low as $1 an acre
- There are 77.3 million acres of farmland across the Canadian prairies
- With just 1% of that we can generate $800k in revenue

Our Ask


Hardware and Data Costs, $30,000
Marketing Costs, $20,000
Total
$500,000
Operating Costs, $200,000
Development Costs, $250,000

Thank You!