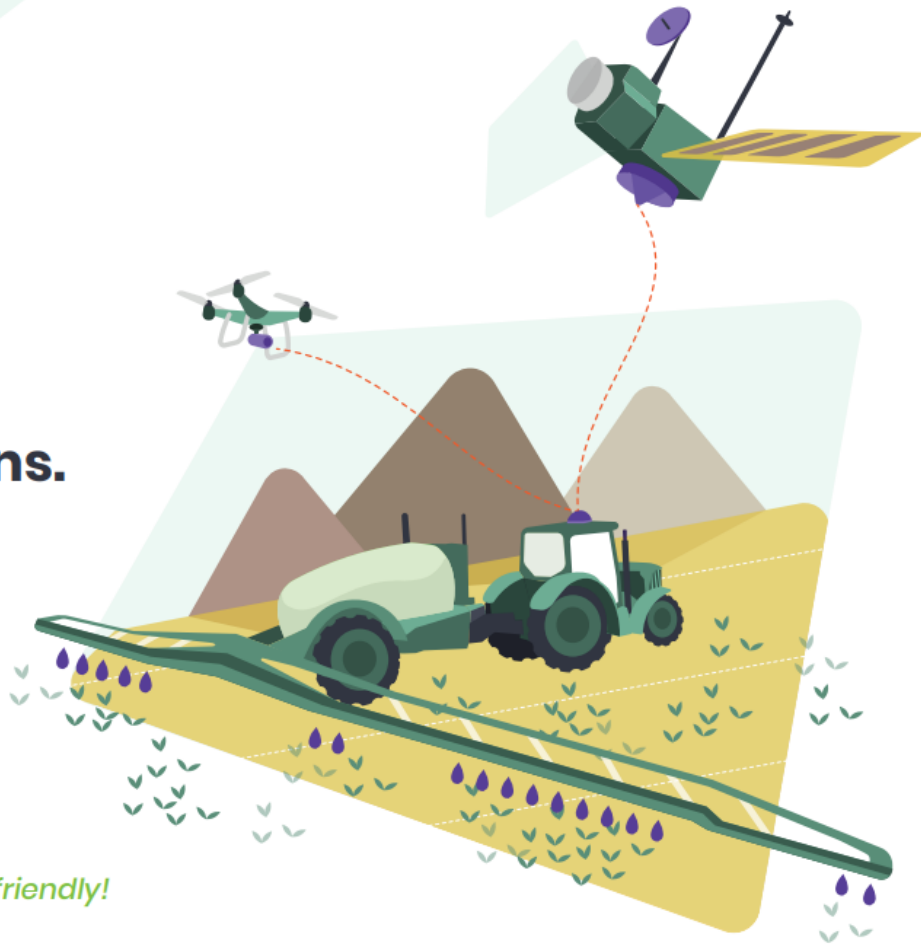




**Try the new, wise
way of variable rate
pesticide applications.**

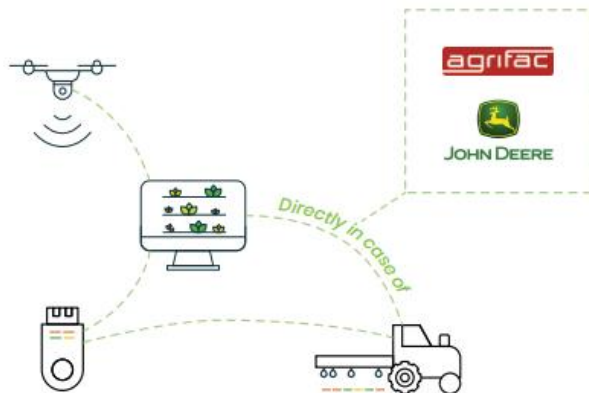
You can save money while being eco-friendly!



Locally target crop protection

With Variable rate application

Variable rate application allows to easily respect the real needs on the field, not to burden the environment and to save money. For this purpose, Cultiwise prepares a prescription map, according to which the sprayer carries out the application using the optimum amount of pesticides or fertilizers.



From Sky to Tractor with DRONES and SATELLITES

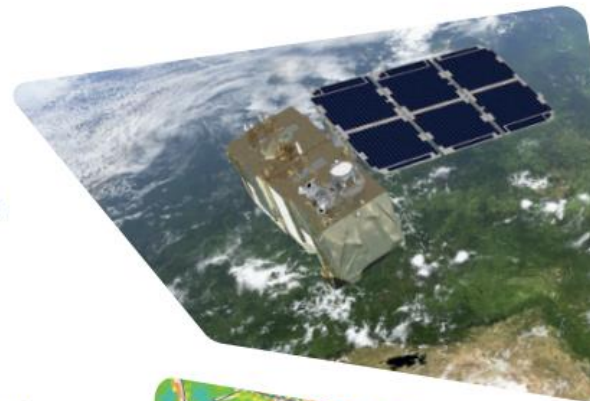
Remote sensing offers unique opportunities in precision farming. Periodic field monitoring gives us valuable information for smart decisions that will enable us to increase efficiency in agricultural production.

Drones

Drones can obtain faster and more detailed imagery than satellites for more timely assessment to provide immediate feedback to the farmer to take action. Higher spatial resolution doesn't just look better. Algorithms can segment for more accurate and sensitive results from drone data, where individual plants can be segmented for analysis. Cultiwise uses sophisticated computer vision, data science and deep learning algorithms to effectively monitor fields and offers a solution for high precision aerial surveillance imagery to increase efficiency of agronomical interventions and thus achieve sustainable agriculture.

Satellites

Satellite systems provide a historical series of periodic imagery, allowing us to analyze long-term changes in agricultural fields. Thus resulting map of yield potential and production zones can then serve as a basis for variable rate application of fertilizers and further agrochemical interventions.





Cultiwise's interface for automated generation of prescription maps.

By grasping the possibilities of aerial imagery and spectroscopy Cultiwise prepares a prescription map, according to which the sprayer carries out the application using the optimum amount of pesticides or fertilizers. This is saving money for the farmers and helps our environment too!

Generate a map, that will show you the zones you need to focus on. And use pesticides or fertilizers only where it's needed and exactly how much is needed.

At the Barns field

Demo Farm 1

Area:
10000m²27.8 ha
900 / 2

SATELLITE IMAGERY



DRONE DATA



PRESCRIPTIONS

Add from: Chlorophyll map

No. of zones: 4

Set rates for zones:

100	g/ha	8,2 ha
120	g/ha	6,1 ha
80	g/ha	4,6 ha
160	g/ha	9,1 ha

Total: 24,9 ha / 2350 l

Export for: John Deere 209

Export prescription



LOCALLY TARGETED HERBICIDE APPLICATION



Real foto

Legend
NDVI



Legend
Target rate



Info about trial

- 32 ha corn/soya field, *Cirsium arvense* spot
- Sprayer John Deere, 3m section control, 24m boom
- Application 24th April, Planting 28th April
- Two pass full rate/
one pass untreated/
spot application

Only **31%** of the field had to be sprayed

Demo Farm

Potential savings

Cultiwise was implemented on several sites on a demo farm to verify the potential gains. With more efficient, variable application of pesticides we reached 28% - 71% savings, achieving same treatment efficacy than with conventional homogeneous spraying. This is a significant difference when taking into account the environmental and economic aspects.

Trial field

Applied products: herbicides, fungicides,
plant growth regulators

No. of fields:

12

No. of applications:

16

Area sprayed:

1 270 acres

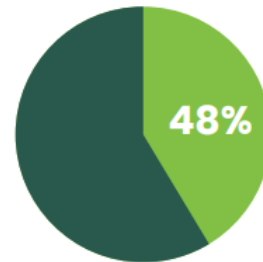
Total costs would be
without cultiwise

\$ 17 730

Total savings:

\$ 8 580

Total savings



Farm size

11 400 acres



Potential savings per season
(In case of 5 applications)

\$ 293 200

Cultiwise applications in various crops

Variable rate fertilizing

Map of yield potential and production zones

Variable rate pre-em application

Identification of parts of the field with perennial weeds for targeted application of glyphosate

Variable rate post-em herbicides

Identification of parts of the field with perennial weeds for targeted application of selective herbicides

Crop coverage mapping

Coverage mapping to optimize decisions and management

Crop variability

Monitoring changes in crop biomass to optimize decisions and management



Corn



Oilseed rape



Soy



Cereals



Vegetables



Sugar beet



Sunflower

Variable rate desiccation

Identification of the maturity of the stands for the targeted application of desiccants



Oilseed
rape



Cerals



Potatoes



Onion

Crop population mapping

Mapping the exact number of plants in a field



Corn



Oilseed
rape



Suflower

Variable dosing of growth regulators

Identification of the development phase of stands for targeted application of growth regulators



Corn



Oilseed
rape



Soy



Cereals



Vegetables



Weed identification

Identification of the weeds in various crops



**Cirsium
arvense
“field
thistle”**



**Convolvulus
arvensis
“field
bindweed”**





**Elymus
repens
“couch
grass”**



**Sorghum
halapense
“johnson
grass”**



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