

# How we generate a field-zone-specific map



**xarvio™**  
Digital Farming  
Solutions

## INPUT



The two satellites will pass over your field

UP TO **4 X**  
A WEEK

Our team of experienced scientists needs to first correct for sensor- and atmosphere-induced distortions and remove clouds and their shadows to provide you the maximum number of cloud-free images of your field. That's how we analyze your field individually.



To increase our chances of getting a usable image, we work with Sentinel and RapidEye. With the satellite images of these international suppliers, we can calculate a vegetation zone map with a resolution of as high as **9 square meters per pixel**.

We also use information regarding national requirements of crop protection product information, seeding date, previous and current crop yield expectations, technical abilities as well as diseases during the season.



## ANALYSIS

To determine the vegetation heterogeneity of your field, we **analyze visible and invisible light spectra**, especially the near-infrared range. Healthy vegetation reflects relatively little in the red region of the visible light spectrum and at the same time a lot in the infrared region. Based on this knowledge, we can calculate the Normalized Differenced Vegetation Index (NDVI) of your fields.



Next, we put together a map of different vegetation zones. For this purpose, we **group locally similar zones** in up to five gradations.

We then convert the vegetation zone map into an application map so that your sprayer can use it. In this step, we **assign country- and product-specific dosing rates** to the different zones.



## OUTPUT

The final step is to **convert the data into ISOXML or shapefile format** so that your sprayer can use it without any troubles.

Now you're ready to go! Just download the application map, transfer it to your terminal, and you can get to work!

