

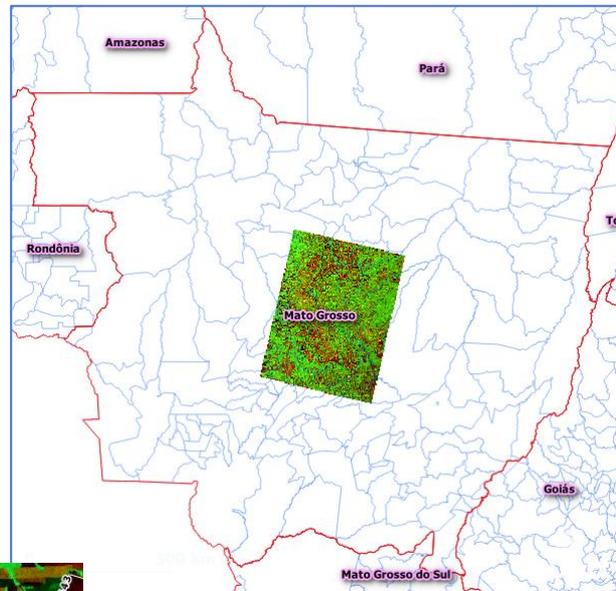
New showcase from Mato Grosso in **iMap**.

For a region in Brazil in the center of Mato Grosso we started to process two footprints on regular basis.

The data is from Sentinel-1 SAR (microwave) data and free of atmospheric disturbances.

The repetition is 12 days in descending mode.

The image below is a pseudo-true Color Composite from Aug 15, 2021.



The image shows in high contrast cropland and forests. Within cropland we see irrigated areas.

In iMap we have an overlay with open-street-map data for better orientation.

Two map products from each region are set on public.

For this project this is the Color Composite (CC) and Evolution (EVO), that shows the biomass development over a period of 24 days.

An example is described on the following page.

If you like to see the other map products you have to register for **free** on our [web-site](#).

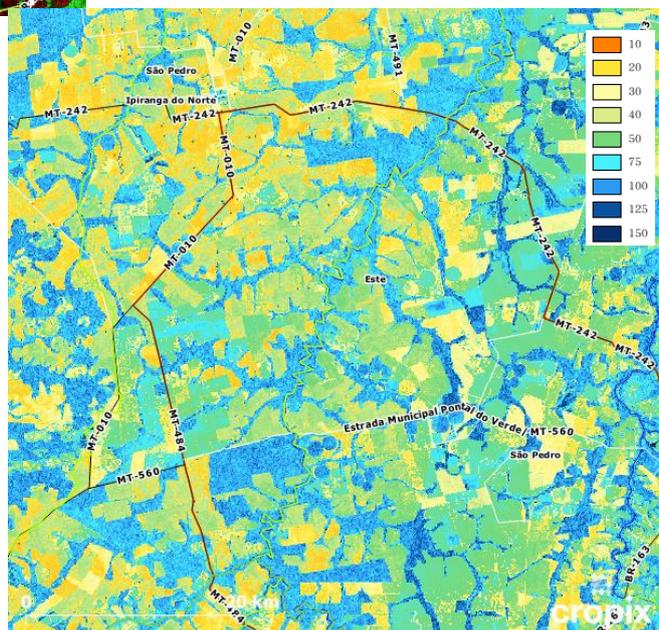
The image on the right side is the SAR Water Index (SWI) which was calibrated against NDWI (Gao).

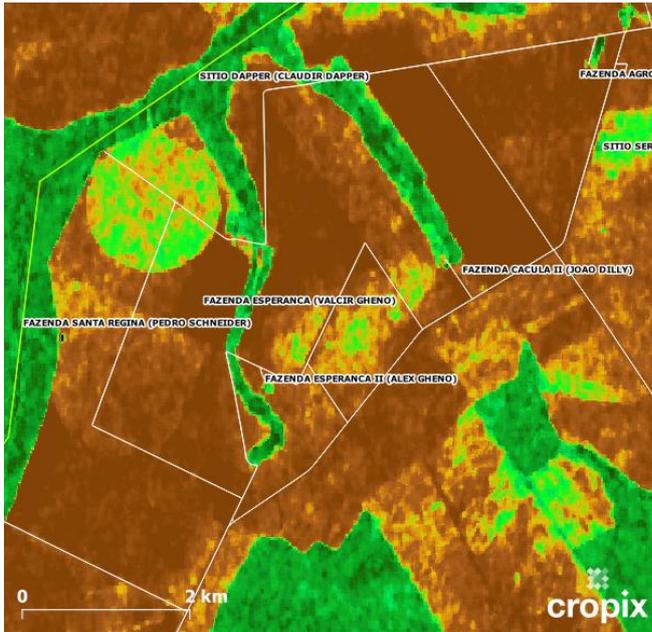
It shows the humidity in vegetation.

The values of this map product range from 0 - 150.

The map product is useful for irrigation schemes and drought monitoring.

Inland water bodies have a low value.





The map product on the left side shows a vegetation index (ESVI), which can be seen as a proxy for fresh biomass.

The values range from 0 – 100.

Water appears in blue.

Bare soil in brown.

Upgrowing vegetation from yellow to green.

The image on the left is from Oct 26, 2021

The image on the right is from Nov 7, 2021.

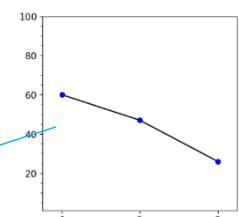
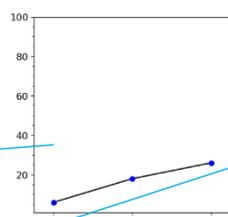
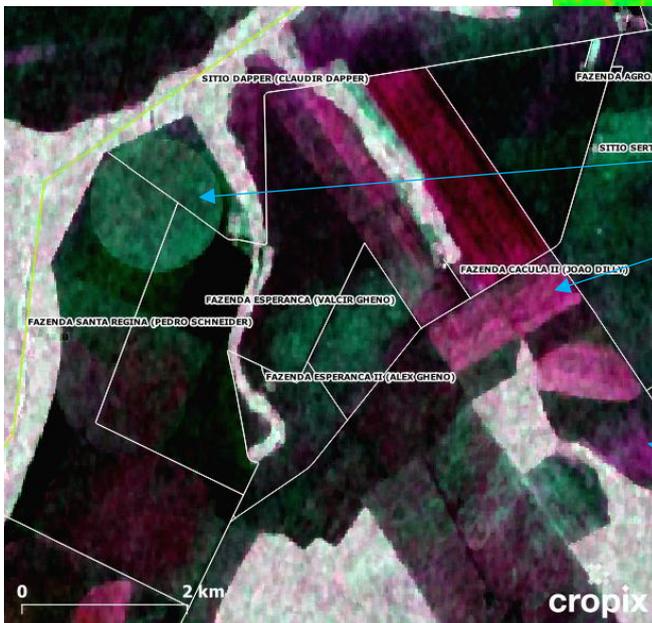
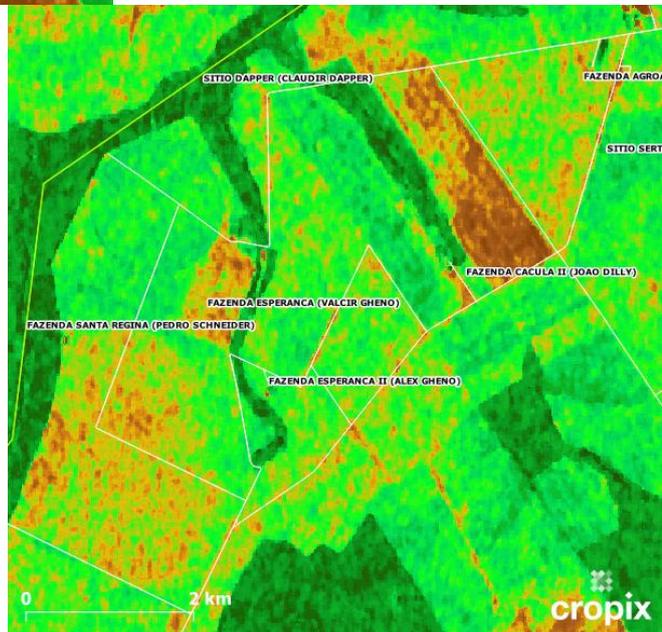
Within 12 days was a significant increase of values, which corresponds with the biomass development.



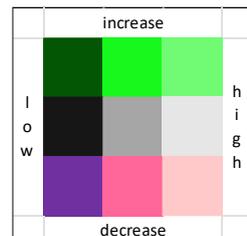
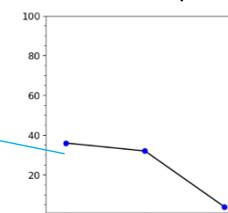
The image below is a visualization of ESVI data, whereby three succeeding datasets are combined to a color composite. The image shows directly the evolution of biomass development within 24 days.

Here you see the map product Evolution from Oct 26, 2021, which include the datasets from Oct 2, Oct 14 and Oct 26, 2021.

In black we see water, or bare soil when it was constantly bare soil over the whole time period. In bright grey we see constant high values. Normally they represent forests where we have constantly high biomass values. In green we see crop growth. In dark green growth is on a low level. In bright green the crop development is on a high level.



The 3 graphics show the ESVI values of the last 3 acquisitions.



EVO legend matrix