

## TF Biomass Map

The **TF Biomass Map** provides the small-scale absolute biomass distribution within the field 4 times a year. So far, the biomass estimation is available for winter wheat, winter barley, rapeseed, maize and sugar beet. You can freely choose the dates for which you need the biomass map.

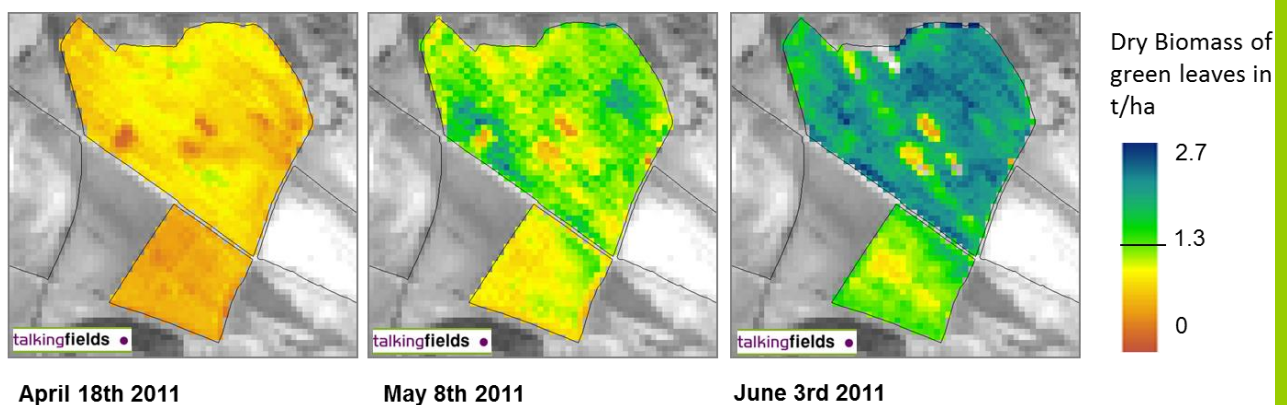
By combining our crop growth model with biomass observations from up to-date satellite imagery, the **TF Biomass Map** can be calculated for any desired date.

With the **TF Biomass Map**, the increased plant disease risk of dense canopy parts can be taken into account for the creation of application maps for plant protection measures.

### The **TF Biomass Map**:

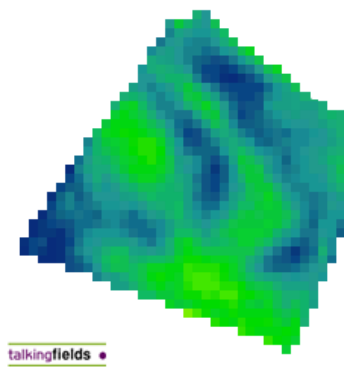
- Gives the biomass in absolute values (t/ha) for winter wheat, winter barley, rapeseed, maize and sugar-beet fields in a spatial resolution of 10x10m.
- Delivers absolute, spatially and temporally comparable biomass information. The target dates can be chosen freely.
- Allows an optimized risk assessment for plant disease and serves as offline information source for application maps for plant protection measures.
- Allows a continuous monitoring of leased fields for the green energy industry.

The following figure shows the biomass development in spring 2011 for winter wheat. The values of the TF Biomass Map are absolute and directly comparable.

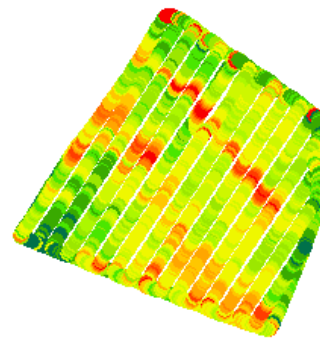
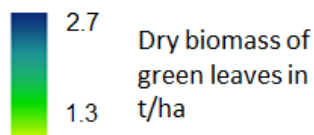


Validation happens via comparison with field measurements as well as with online sensor values of relative biomass distribution.

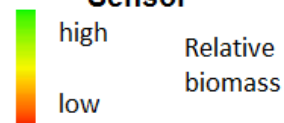
In the following image, you can see on the left side the biomass distribution on the **TF Biomass Map**. On the right, you can see the field as measured with an online sensor. The spatial distribution of the biomass from both observations is congruent.



**TF Biomass Map**



**Biomass observation of N-Sensor**



In opposition to online sensors, the **TF Biomass Map** delivers absolute values. The TF Biomass Map allows an optimized, site-specific plant disease risk assessment in order to plan plant protection measures. Through its absolute nature, the TF Biomass Map makes a comprehensive monitoring of the biomass development on all fields possible.

The **TF Biomass Map** is available for fields >1 ha. The **TF Biomass Map** is currently available for Germany. If you wish to order the TF Biomass Map for other countries please contact us for further information.

Product name	Description	Recommended retail price in €/ha (excl. VAT)	Unit	Output format
<b>TF Biomass Map</b>	Shows the absolute biomass for three dates of your choice	12 € excl. VAT* <small>*Discounts are available for large orders.</small>	t/ha	TF-XML, Point-Shape-Files, raster data

Upon receipt of an order we require the boundaries of the ordered fields **as well as** of non-target areas within the field (e.g. hedges or groups of trees), preferably in TF-XML- format.

If you are interested in this product, please contact us for further information at [info@talkingfields.de](mailto:info@talkingfields.de) or call us at +49 89 45 21 614 22.

The delivery of the **TF Biomass Map** includes:

- Four up-to-date biomass maps during the vegetation period
- Delivery in NEXT Farming<sup>OFFICE</sup> compatible format or as point-shape file which can be read by most prevalent agricultural software packages which include GIS functionality.