

NBS site in Hungary, Hungary

Viktoria Vona





NBS test site in Hungary - Szigetköz

- trans4num will conduct experimentations in three replications comparing the NBS innovations with conventional intensive farming systems.
- The trials will be conducted on a 20 ha land with three years' rotation: durum wheat, sorghum and soya.
- Trans4num will conduct the experimentation together with practice partners and local stakeholders on Kimle experimentation sites.
- Soil quality after application will be tested using fast sensor-based technology to examine the effect of the NBS introduced on soil structure and organic matter improvement as well as yield improvement.

1. year

NBS	CONVENTIONAL
Spring durum wheat	Spring durum wheat
Soya	Soya
Sorghum	Sorghum

2. year

NBS	CONVENTIONAL
Sorghum	Sorghum
Spring durum wheat	Spring durum wheat
Soya	Soya

3. year

NBS	CONVENTIONAL
Soya	Soya
Sorghum	Sorghum
Spring durum wheat	Spring durum wheat



NBS:

- Crop rotation
- Biostimulants
- Organic fertilizer
- No herbicides, minimalized pesticides
- No tillage

1. year	
NBS	CONVENTIONAL
Spring durum wheat	Spring durum wheat
Soya	Soya
Sorghum	Sorghum



MONITORING

INTEGRATING INTO NBS PRACTICE + CHECKING RESULTS

Innovations	Description	effects on climate change, nutrient availability and their interactions with C cycling.
Integrated crop and soil monitoring system into the production	Crop and soil Monitoring during the growing cycle helps farmers to manage multiple fields, cut costs on resources and take reliable fact, data based decisions	Crop and soil monitoring systems help to reduce the risks and resilience of climate change. Measures: Organic carbon content in soil
Sensor based soil analysis	It provide immediate soil analysis results that help to make the nutrient application decisions based on the measured nutrient status of the soil	Measured parameters: pH, Organic Matter, N Total, P (M3), K (exch.), Ca (exch.), Mg (exch.), CEC, Al Total, Iron Total, Clay, Moisture, %
Monitoring with remote sensing (satellite images, drones)	Monitoring the development of crops, and managing the applications according to the actual state of the plants	Measured parameter: Vegetation indexes



MONITORING THE CROP

Monitoring the development of crops, and managing the applications according to the actual state of the plants



Plant and crop sampling



MONITORING THE SOIL

It provide immediate soil analysis results that help to make the nutrient application decisions based on the measured nutrient status of the soil





FIELD VISIT - SHARING EXPERIENCES



QUESTIONS?

