



**Presentation Project SoMyCo
EIP-AGRI workshop 'Cropping for the future'
Autark Energy Systems
Mycelco Solutions by Nature**

Lelystad, 4 June 2019



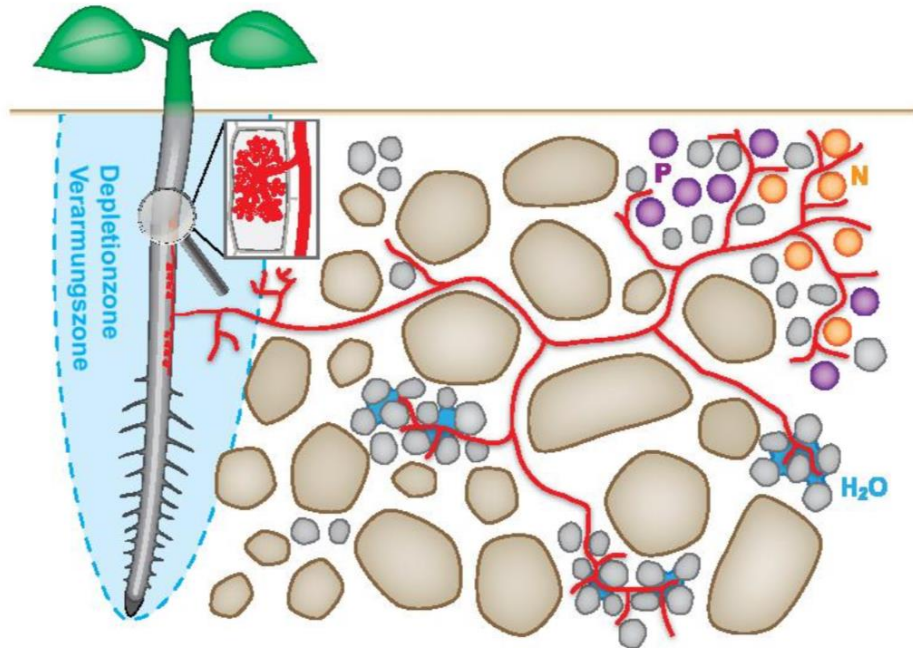
Project SoMyCo

- **SoMyCo; Enhancing the Yield of Soy production by using Mycorrhiza and decentralized cold press technology.** The main goal of this project is to enhance the economical yield of local soy production in the 'Veenkoloniën' region. The soil conditions in this region are relatively 'poor', making crop variation limited.
- **Project under POP3 regional program.** Two specific objectives are researched:
 - Enhancement of crop vitality and overall yield increase achieved by symbiosis of the soy with Mycorrhiza. A granulate is developed to be used in close combination with the soy seed in specific soil conditions. Symbiosis occurs through mutually beneficial nutrient exchange between the soy plant and Mycorrhiza fungi
 - Presentation by Roland van Driel
 - Introduction of a local 'cold press' facility which gives farmers the ability to process the soy for their own use (cattle feed) and thereby improving the economical yield of growing soy.
 - Presentation by Filips Jager
- **Short demonstration (outside) press facility**

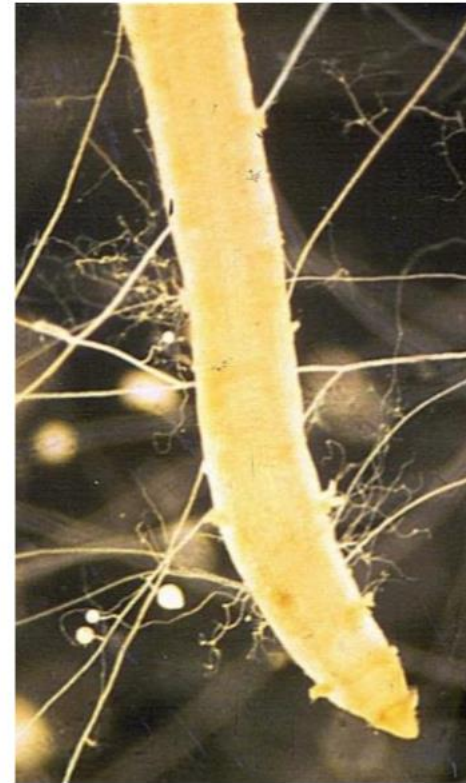


Project SoMyCo; Mycorrhiza

Schematic representation of the symbiosis between Soy plant and Mycorrhiza fungi



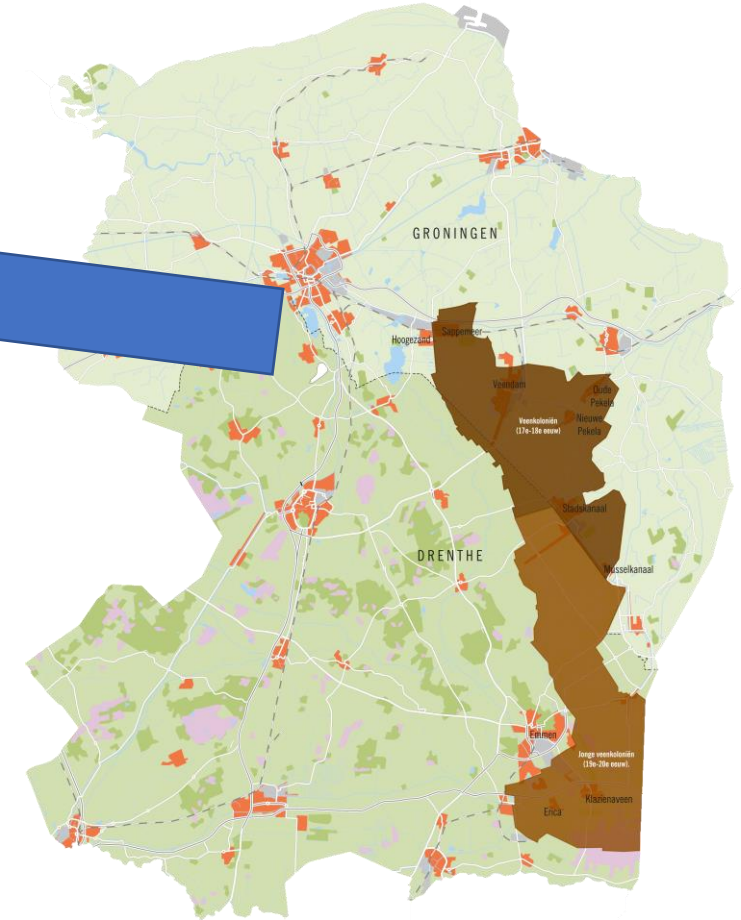
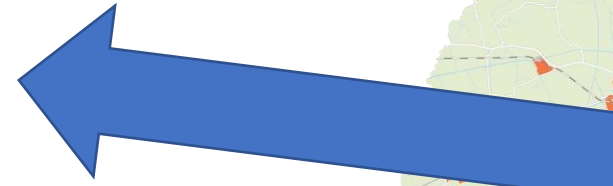
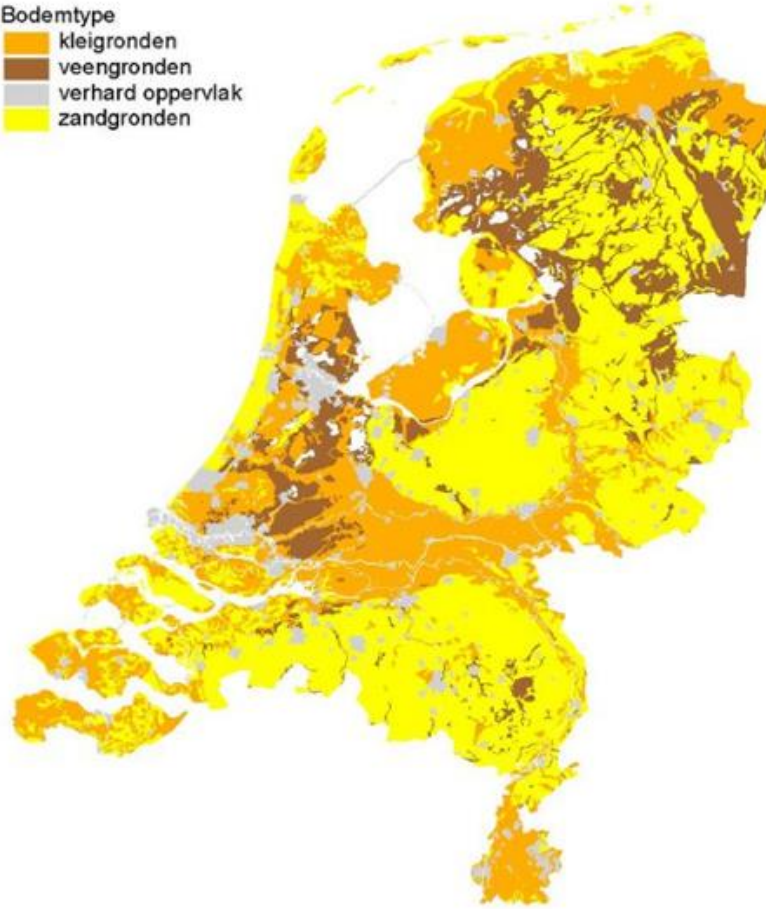
Fungi network interacts as an 'extended' root system enabling deeper nutrient extraction from poor soil



Project SoMyCo; Preliminary results

- **3 test location within the 'Veenkoloniën' planted with Soy for multiple years.**

Bodemtype
kleigronden
veengronden
verhard oppervlak
zandgronden



Project SoMyCo; Preliminary results

- **Development Mycorrhiza granulate;** The main goal of this project is to enhance the economical yield of local soy production in the 'Veenkolonieën' region. The soil conditions in this region are relatively 'poor', making crop variation limited.
- **3 test locations within the 'Veenkolonieën' were planted with Soy / fungus combination for multiple years.** Preliminary results:
 - Mycorrhiza colonies are not effected by the used of chemical weed control treatments.
 - Rigid weed control essential for the maturing of the soy plants.
 - Summer of 2018 (year 2 of the project) was a disaster, all 3 fields perished by drought, the project is therefore extended for an additional full season



Project SoMyCo; Preliminary results

Duplo tests with both granulated and regular Soy



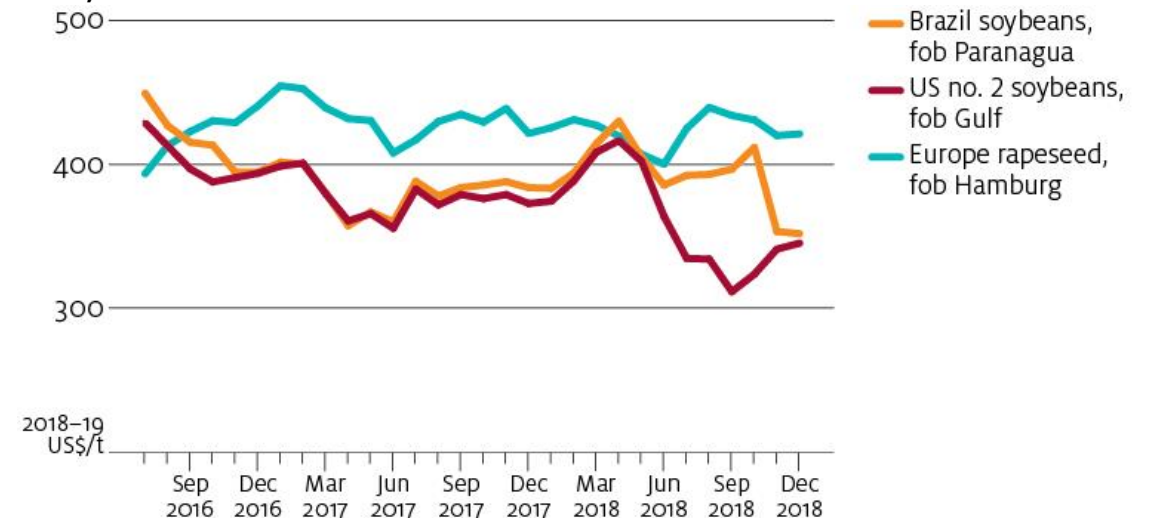
Weed problems in the untreated fields



Test location Vriescheloo, 2017

Project SoMyCo; Cold Pressing

- **Development 'Cold Press' facility;** The Dutch soy production is used for human consumption (Alpro Soya). The soy market is fully contracted with fixed prices (only when a minimal protein % is delivered).
- **3 test location within the 'Veenkolonieren' planted with Soy for multiple years.** Preliminary results:
 - Mycorrhiza treatment enhances the yield.
 - Drought in the summer of 2018 reduced protein levels below minimum. Prices dropped under production costs, a lot of farmer stopped producing Soy.
 - Soy world prices dropped;
 - Buying Soy is cheaper then producing



Project SoMyCo; Cold Pressing

Press facility has been design as a mobile solution



Technical installation uses a modified Reinartz press



Project SoMyCo; Forecast 2019

New Soy has been planted (May 2019)



Press tests to be executed

- Any Questions ?

