

Banat Green Deal

Romanian Banat and Baden-Württemberg partnership
for the European green deal project success



Scoala Agricola Voiteg

Project Opening Online Meeting
17. December 2020,
Stuttgart - Timișoara



UNIVERSITY OF
HOHENHEIM

Dr. Markus Weinmann, Prof. Dr. Uwe Ludewig
Institut für Kulturpflanzenwissenschaften (340h)
Universität Hohenheim, 70593 Stuttgart

■ Introduction

University of Hohenheim: one of the oldest European
Agricultural Universities (founded 1818)



UNIVERSITY OF
HOHENHEIM

Rector: Prof. Dr. Stephan Dabbert

Academic staff: 941

Administrative staff: 1,100

Students: 9,759

Location Stuttgart, Baden-Württemberg, Germany

Institute of Crop Science – Historical Background



„I lived with the plants. I laid the ear on the soil and it seemed to me as if the plants were pleased to be able to tell something about the secrets of their growth.“

Prof. Dr. Margarete von Wrangell (* 1877 in Moskau; † 1932 in Hohenheim),
erste Leiterin des Instituts für Pflanzenernährung in Hohenheim

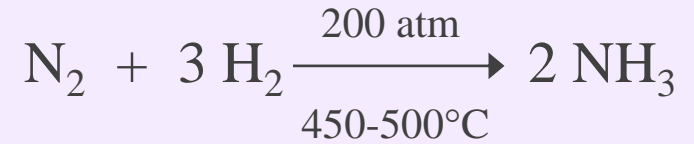
Bio-Effectors – Historical Background



Fritz Haber 1918



Haber-Bosch process for ammonia (NH₃) synthesis:



DHR = -92 kJ/mol

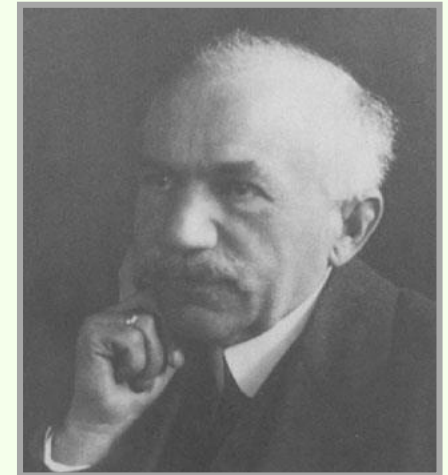
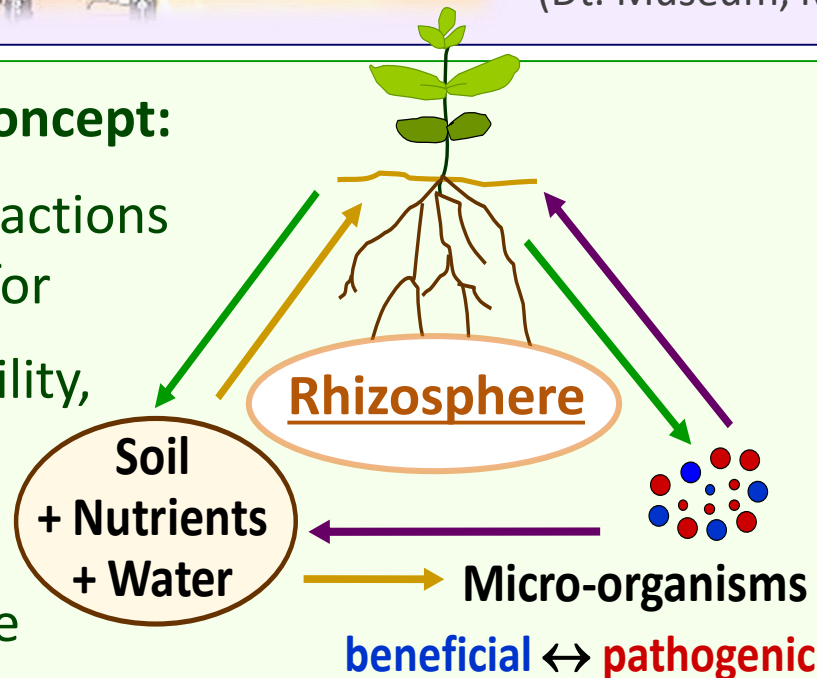
Haber's first experimental reactor
(Dt. Museum, Munich)

Hiltner's rhizosphere concept:

soil-plant-microbe interactions play an important role for

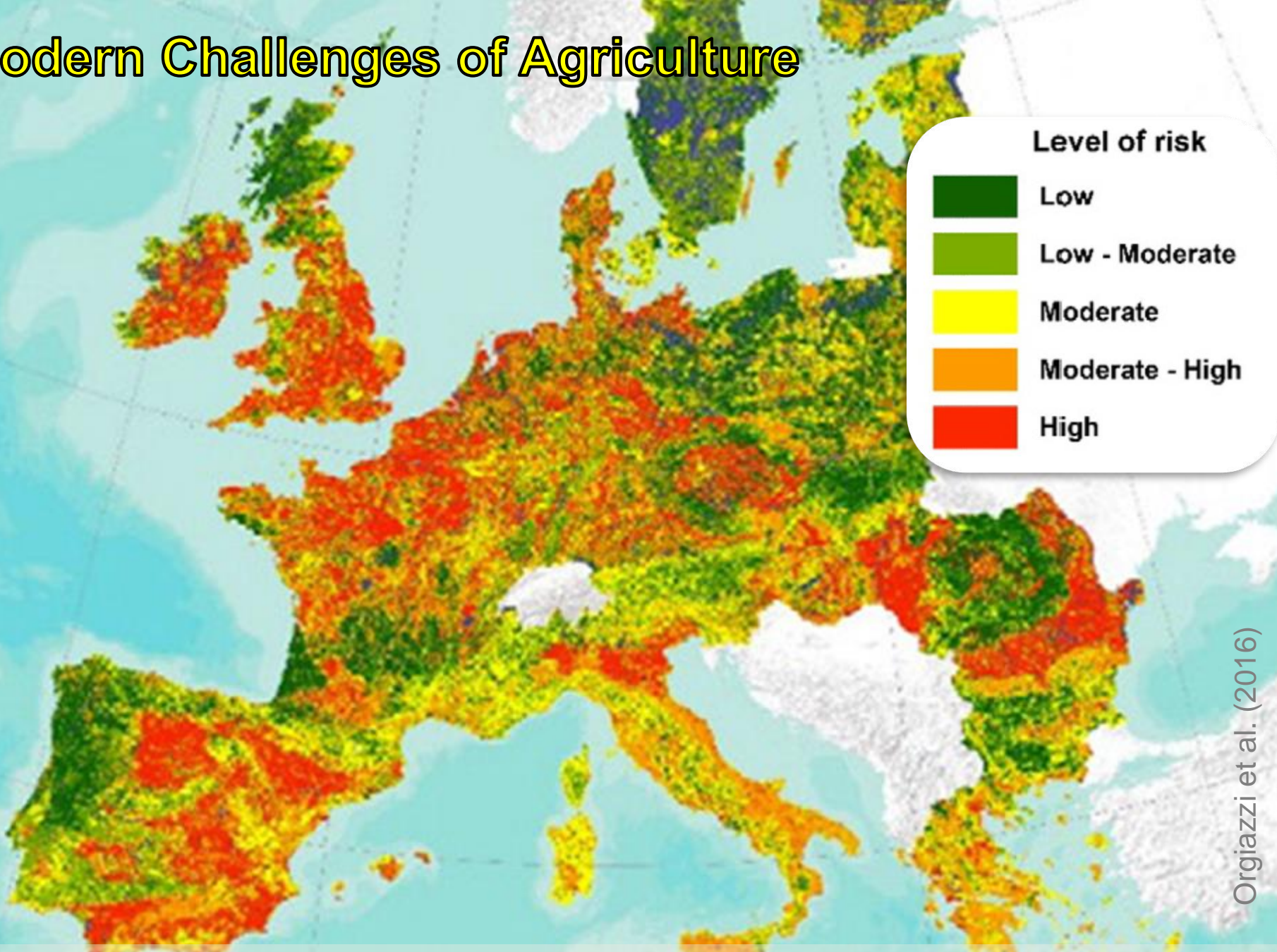
- plant nutrient availability,
- pathogen defence

and can be managed for improved agriculture



Lorenz Hiltner 1922

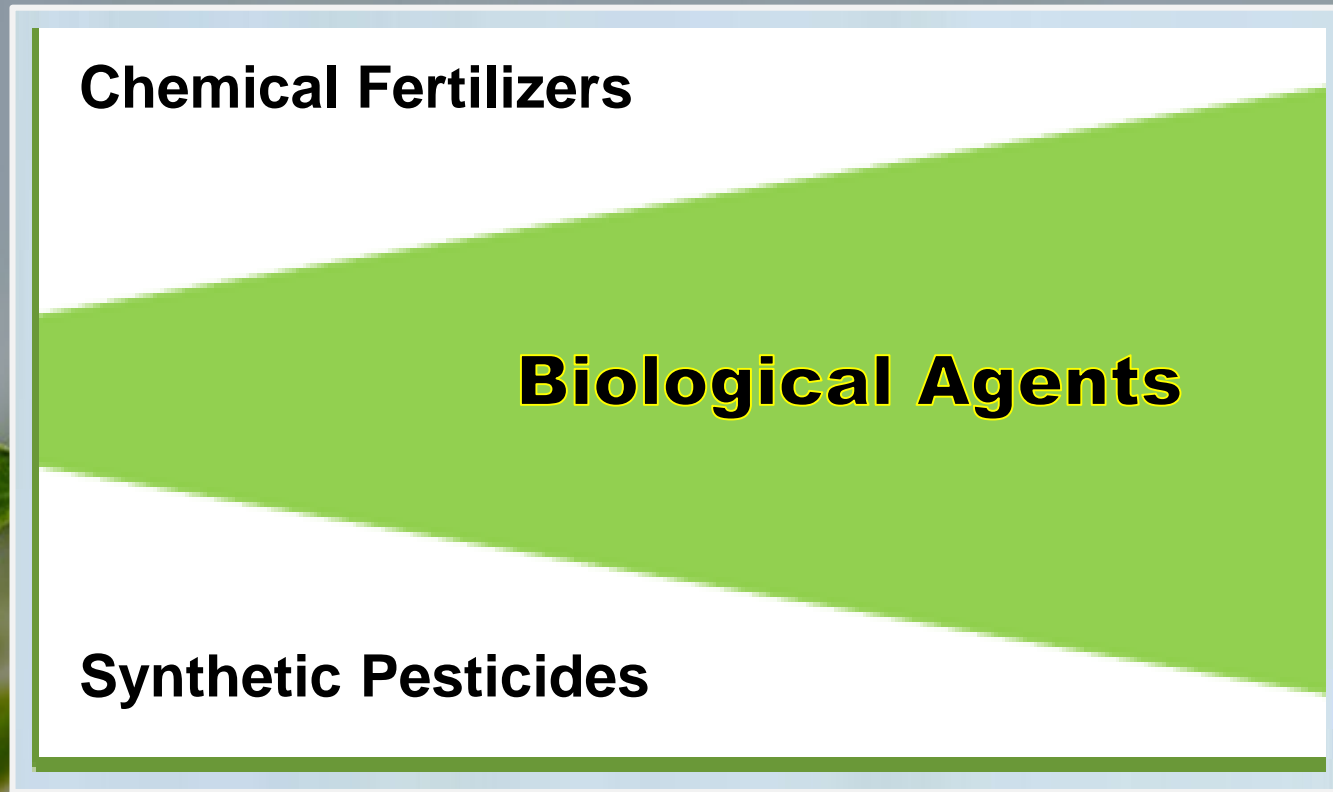
Modern Challenges of Agriculture



Orgiazzi et al. (2016)

Risk to soil degradation by loss of soil biological functions. 5

Growing interest in agricultural biologicals



- ➔ 100 x higher success rates in screening of biological agents
- ➔ 10 x lower costs for product development
- ➔ Market Forecast: 14 % Compound Annual Growth Rate
- ➔ Global-Market-Volume: 6.75 Billion US \$ (2017)

(Agra-Europe, 2017; Ravensberg, 2017; MarketsandMarkets, 2019)

Frankfurter Allgemeine

AGRARPAKET:

Bauern in Aufruhr

VON BERND FREYTAG, MAINZ-AKTUALISIERT AM 19.11.2019-19:20



Highest Standards
+ Lowest Prices

= Impossible

IST DER BAUER
RUINIERT
WIRD DEIN ESSEN
IMPORTIERT



Günter Rohrmoser

Landwirtschaft .. in der Ökologie- und Kulturkrise

Gesellschaft für Kulturwissenschaft



Prof. Günter Rohrmoser. 1927 - 2008

**„Agriculture in the Ecological
and Cultural Crisis“**



**Staatsministerium
Baden-Württemberg**

Romanian Banat and Baden- Württemberg partnership for the European green deal project success

Project Partner:

- Universitatea de Stiinte Agricole si Medicina Veterinara a Banatului "Regele Mihai I al Romaniei" din Timișoara
 - Ackerbauschule Voiteg
 - DEULA-BW
- Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen
 - Madora GmbH

Coordination: University of Hohenheim

Duration: Dec. 2020 – Mai 2022

Fundet budget: **95,200.00 €**

Total budget: **126.975.00 €**



The Danube Region



Project Relevance to Priority Areas of the Danube Region Strategy Program (added later)

- Education in ecological agriculture and agricultural engineering, digitization and smart farming, social and cultural aspects
- Biodiversity, Landscapes and Air, Soil, Water & Food Quality
- Economy and Sustainability, International Cooperation
- Knowledge transfer and practice implementation, capacity building, Agricultural Knowledge and Innovation Systems (AKIS).

Tasks and Objectives of the Banat Green Deal Project (added later)

- Development of an innovative course and training program regarding current ecological and cultural challenges in agriculture
 - smart farming and digitalization of agriculture
 - biological approaches as alternatives to agrochemicals
 - adaptation to and mitigation of adverse climate change impacts
 - maintenance and recovery of fertile soils
 - ecological and cultural conversion of agriculture
- Formation of an international research consortium to apply for a Horizon 2020 or Horizon Europe Project „Mission Soil“
- Agricultural Knowledge and Innovation Systems (AKIS).