



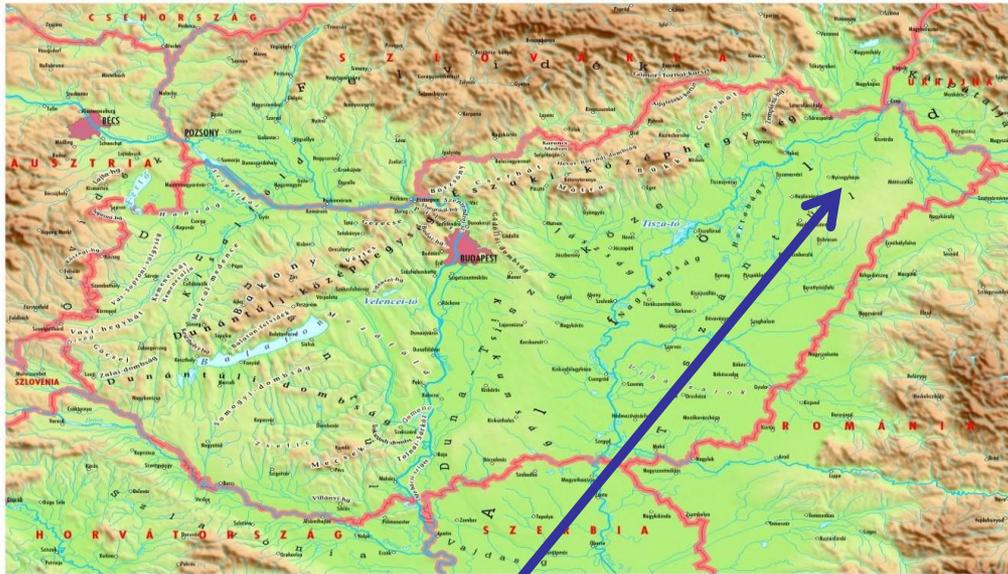
NYÍREGYHÁZI  
EGYETEM

MŰSZAKI ÉS  
AGRÁRTUDOMÁNYI INTÉZET

# **ON FARM RESEARCH AND DEMONSTRATIONS ON SOILS WITH LIMITED FERTILITY AT THE TRAINING FARM OF THE UNIVERSITY OF NYÍREGYHÁZA (HUNGARY)**

**László SIMON - Béla SZABÓ - Miklós SZABÓ - Zsuzsanna URI**

**University of Nyíregyháza, Institute of Engineering and Agricultural Sciences,  
Department of Agricultural Sciences and Environmental Management,  
Nyíregyháza, Hungary**



## HUNGARY (Magyarország) & NYÍREGYHÁZA

7.356 million hectares (79%) of growing areas, 4.334 million hectares of arable lands, **only 250 000 hectares (<3-4%)** turned to organic production



# Nyíregyháza, North-Eastern Hungary



# University of Nyíregyháza



**Technical and Agricultural  
Faculty**

**Our  
building**



**TRAINING FARM OF THE UNIVERSITY OF NYÍREGYHÁZA – Dr Bela Szabo**

## **ANIMAL HUSBANDRY**

**Site of the practices for our agricultural engineer students (animal husbandry and horse breeding).**

**Hungarian sport and pony horses;  
Hungarian yellow hen stock; Hungarian  
merino sheeps; goats; pigs.**



# TRAINING FARM OF THE UNIVERSITY OF NYÍREGYHÁZA

## HORTICULTURE, FRUCTICULTURE



**Plantations turned to organic farming:  
apple, plum, pear, apricot,  
grape, cherry, raspberry.**

**Site of the production practices for agricultural engineer students (pruning of apple and drupaceous fruit trees, nuts, berries, plant species knowledge and plant protection practices).**



# TRAINING FARM OF THE UNIVERSITY OF NYÍREGYHÁZA – in FERENCTANYA near NYÍRTELEK

## PLANT CULTIVATION

Site of the weekly, summer and continuous practices for our agricultural engineer students.

Our students are involved in every work of arable crop production (subsoil loosening; plowing; seedbed preparation , nutrient sreplenishment; sowing; plant care; harvesting; mowing; etc.).

**Field crop production: 248 ha**  
- conventional: 114 ha  
- organic: **134 ha (54%)**

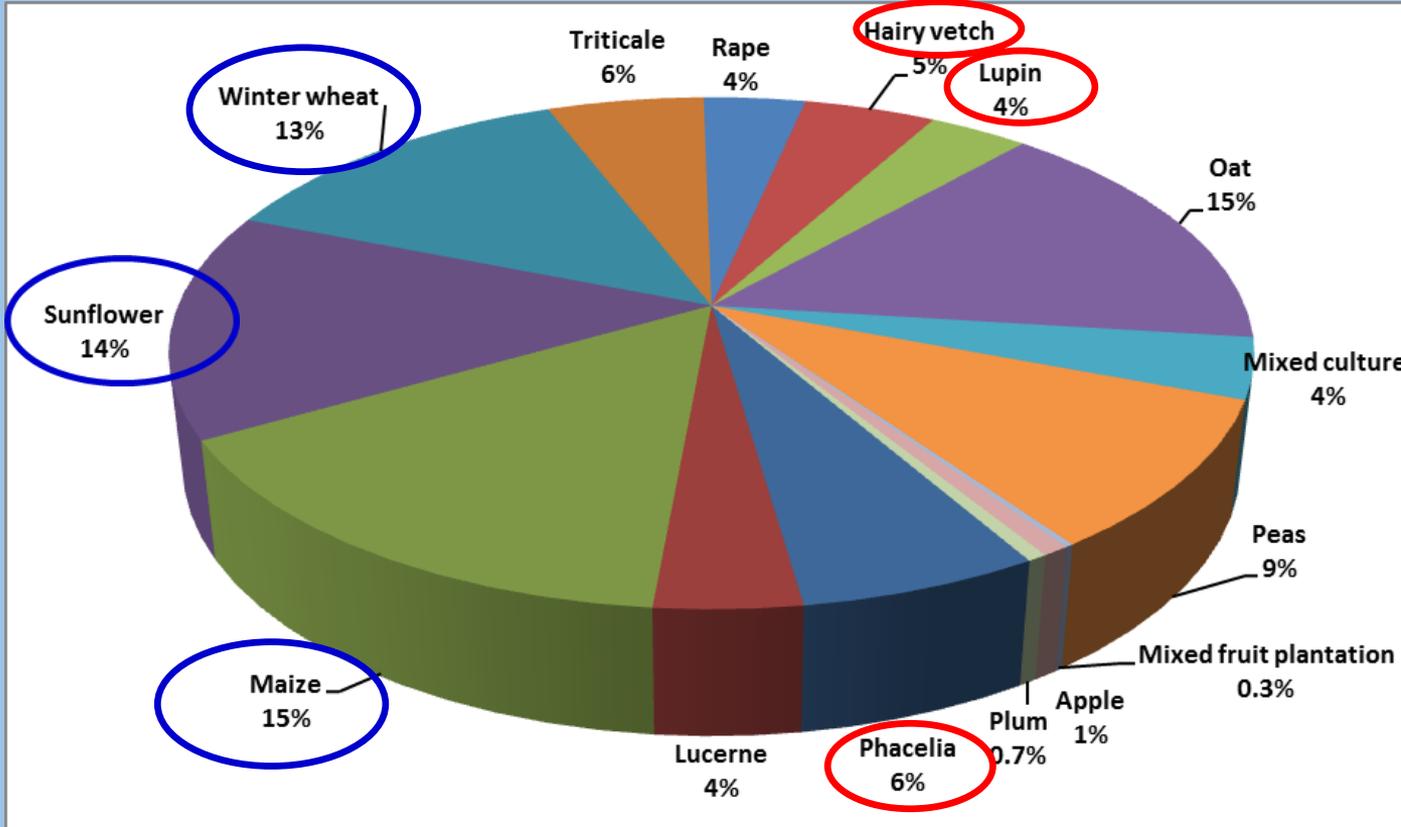


## **ARABLE SOILS**

- loamy sand texture
- acidic or slightly acidic, pH-KCl: 4.0-5.6
- low total salt content, 0.05-0.09 m/m%
  - low  $\text{CaCO}_3$  <0.1 m/m%
- low or medium organic matter content 1.9-2.4 m/m%
  - low soluble Zn 6.2-7.8 ppm
  - low soluble Cu 1.4-1.7 ppm



# Production structure 2018



Lupin

Research related to organic farming

# GREEN MANURING – SUNFLOWER (Dr. Zsuzsanna Uri)



**Stock of Tillage Radish in the green manuring experiment**  
(left: in September 2017, right: in January 2018)



**Stock of Tillage Mix „Tas” in the green manuring experiment**  
( in September 2017)



**Stock of a sunflower hybrid in the green manuring experiment** ( in June 2018)

# WEED MANAGEMENT – Dr. Miklós Szabó

## Weed flora research

- Hairy vetch
- Fodder peas
- Lupin

## At every crop two sowing technologies

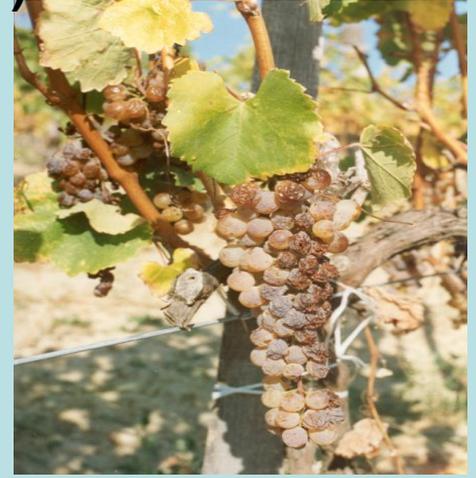
## Three surveys per year

- Weed species
- Weed coverage
- Annual and perennial weeds



***AMBROSIA ARTEMISIIFOLIA WITH LUPIN***

# TOKAJ WINE REGION - UNESCO WORLD HERITAGE (only 30 kms far from Nyíregyháza ☺)



Tokaj „aszú” wine



Thank you for  
your attention!

