Summer School
<<Food Production and Environmental Impact on Agricultural Land>>

Date: September 22-26, 2025

Place: Slovak University of Agriculture in Nitra, Faculty of European Studies and Regional Development, Tr. A. Hlinku 2, 949 76 Nitra, Slovakia

TASK: CREATE A DECISION TREES

See: information about decision trees in LiLAC: Our Approach

Group number 2

SOIL HEALTH AND PROTECTION - CURRENT CHALLENGES AND SOLUTIONS.

CREATE ONE COMMON TREE

1. Soil condition assessment

Does the soil have proper structure and fertility?

YES → proceed to monitoring and preventive measures (point 4).

NO → proceed to point 2.

2. Diagnosing the problem

Is the problem:

a) Salinization/acidification → point 3a

b) Water or wind erosion → point 3b

c) Chemical degradation (pollutants, heavy metals, pesticides) → point 3c

d) Loss of humus and fertility (biological degradation) → point 3d

3. Selecting corrective measures

3a. Salinization/acidification

Liming in case of acidification.

Improving drainage and selecting salinity-tolerant plants.

Avoiding excessive use of agrochemicals.

Using organic additives

3b. Water/Wind Erosion

Introduce windbreaks.

Cultivate cover crops and catch crops.

Slope terracing and mulching.

3c. Chemical Degradation

Reduce the use of agrochemicals.

Bioremediation (cleaning plants – phytoremediation).

Remove point-source pollution.

3d. Loss of humus/fertility

Apply manure, compost, and green manures.

Reduce intensive tillage (conservation agriculture).

Increase crop biodiversity (crop rotation).

4. Protection and Prevention

4a. Monitor soil parameters every few years.

4b. Reduce intensive chemical use.

4c. Maintain cover crops and crop rotation.

4d. Educate farmers and land users.

Conclusions:

Sources: