**“Structure of The Lecture sillabUS”** *soil protection cultivation procedures to improve the structure of the soil profile*.

Syllabus of scientific lectures within the project
Training of farmers V4 in techniques for environmental
protection and soil water

Content

1. Abstract of scientific lecture

## Structure of lecture (1st and 2nd part)

## Process of lecture

1. **Abstract of scientific lecture**

Climate change, with the unfavorable distribution of rainfall that it brings, is a serious issue of negative impact on the final results of agricultural production. The increasing occurrence of extreme weather such as drought, due to climatic change, is likely to become a real threat to agriculture. Another associated problem affecting soils in the Czech Republic is the inadequate supply of organic matter and over-compaction of soils. Improved biological activity in the soil compensate these negative impacts. Objective of this study is to project approaches with possibility of supporting biological soil systems by means of soil biostimulation as well as the possibility of promoting soil biological systems using biostimulation. The goal of the research study is to show the effectiveness of biostimulants by improvement of the soil environment. Biostimulant NeOsol - soil activator and biostimulant ExplOrer - rhizosphere activator (Olmix Group), have been used. Four experimental variants were prepared: Variant 1 – Control, no biostimulant; Variant 2 – Biostimulant soil vital function activator, Variant 3 – Biostimulant – soil biomass activator for mixing with fertilizer, Variant 4 – Biostimulant – stimulator of rhizosphere biological activity. The soil parameters we measured were - soil structure, actual water and air content, porosity, maximum capillary capacity, and minimum air retention capacity. The results show that the application of biostimulants has a positive effect on the physical properties of the soil. The average structural coefficient in both variants ranged from 0.58 to 3.12. The resulting values of density of the soil are between 1.27 to 1.51 g.cm-3 which also shows its unsatisfactory condition. Chemical properties (Cox, C/N) confirmed plants growing conditions by the improvement. The yields by usage of these products increased in comparison to control.

## Structure of lecture (1st and 2nd part)

1. I**ntroductiom** – the lecturer will explain the procedure of subsequent interpretation. In the introduction, introduce and explain the outline of your lecture on the Visegrad project and make contact with the audience.
2. **Section** –it is the distribution of ideas into partial logical parts, the presentation of one 's own knowledge and experience together with examples. It is appropriate to mention any objections and argue with them. It makes the lecture more interesting and lively. This also encourages critical thinking. Everything should be understandable, clear. If the topic allows, the basis is expressed, the essence in one sentence (password). Which is very suitable for creating memory tracks. Human memory likes to rely on passwords and words.
3. **Conclusion** –the lecturer summarizes important parts of the content of the whole lecture. The lecturer will point out the theoretical and practical benefits for practice. Provides links to sources of information, references and possibly methodological instructions for working with it. The conclusion should be very well and carefully elaborated, otherwise it can damage the overall very good lecture if it is neglected, for example due to lack of time. The final impression affects the perception of the whole output, the speech. One remembers vividly what is at the end of an event. After completing your own lecture, it is important to give space for students' questions.

The maximum duration of the lecture (or part of it) should be 50 minutes.

## Process of lecture

1. At the beginning of the lecture, the lecturer presents the aim and consequences of the lecture of the 1st and 2nd part - within the project (5-6 minutes).
2. Lecture 1st and 2nd Part 2 (5-40 minutes).
3. Final discussion, summary of the whole lecture (10 minutes).