Building Capacity of Serbian Agricultural Education to Link with Society

Coordinator: University of Belgrade Faculty of Agriculture





Izgradnja kapaciteta srpskog obrazovanja u oblasti poljoprivrede radi povezivanja sa društvom

> Koordinator: Univerzitet u Beogradu Poljoprivredni fakultet

## **COURSE REGISTRATION FORM**

Teacher Olivera Nikolić
University EDUCONS University

**Course** Fertilization in organic production

Target Agricultural Middle Schools/ Agricultural Extension Service

**Type** classic

**Duration** 1 day – 8 hours

Fertilizers use in plant production is very actual task due to energetic crises, need of rationalization of agricultural production, ecosystem protection and produce health safety products during the last decades. This agro-technical procedure is, however, an essential part of the system of growing plants, bearing in mind that it is prerequisite of yield quality and level. Fertilization model is just one of essential differences between conventional and organic agriculture. Overmaster and assimilate knowledges about fertilizers permitted in organic production system, techniques of its producing and use and possibilities of use some preparations (microbiological, herbal, etc.) for the purpose of soil improving and plant nutrition are important for successful and economically justified perform of organic production. Use of nature and organic matters instead of synthetic ones in agricultural production is one among ways to significantly reduce serious ecological and healthy problems that contemporary population is faced with In this context, processing of waste into high valuable material plays an important role because it leads to a reduction of the total amount of waste in landfills and risk of ecosystem pollution and ensures the circulation of matter and an ecological balance in the environment. So, it is very important to raise awareness of all affective factors in educational and productive system, producers and consumers of the need for controlled use of chemicals in agriculture and their replacement by natural substances that is included in the system of organic agriculture.

- 1. Influence of use of mineral fertilizers on ecosystem and health safety of food
- 2. Differences in the fertilization between the conventional and organic agriculture systems
- 3. Types of fertilizers and preparations permitted in organic agricultural system

## **Contents**

Description

- 4. Limiting factors applying some modern preparations in practice and possibilities of overcome the obvious difficulties
- 5. Waste processing as way of obtaining valuable substances for plant nutrition and soil improvement
- 6. Ecological aspect of use of organic fertilizers and microbiological and herbal preparations

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- 1. To provide relevant information to the participants about the basic types of organic fertilizers and contemporary preparations with an additional effect on the quality of production and soil substrate.
- 2. To make participants able to understand substantive differences and advantages of organic and conventional agro systems in terms of fertilization.
- 3. To gain insight into the critical points in the implementation and overall manipulation of organic fertilizers, limiting factors applying some modern preparations in practice and possibilities of overcome the obvious difficulties.
- 4. To raise awareness of the relevance and importance of composting as a method of waste processing and obtaining highly valuable organic matter or fertilizer compost.
- 5. To raise awareness of the dangers of excessive and uncontrolled use of chemicals in agriculture, the need to popularize organic agriculture where conditions are suitable for that system and its multi-functionality.

The teacher opens course by a presentation of fertilization in conventional agriculture. Through the discussion, the teacher and the participants determined the positive and negative aspects of mineral fertilizers in agriculture. It represents an introduction in the next part of course devoted to organic fertilizers and preparations allowed in organic agriculture.

The teacher presents the most important information about the types of organic fertilizers, preparations used for plant nutrition and soil improvement, preparation and application techniques. Along with the presentation, course participants can view samples of fertilizers and preparations typical for organic agriculture. Course participants share their practical experience in this area (participation in a project, organizing compost on the farm, experimental work in teaching with different kinds of fertilizers, etc.). This part is finished by conclusion about ecological and productive advantages of use of organic fertilizers and critical points in their preparation, keeping and use.

The largest part of the course relates to composting as a way to processing of organic waste results in valuable matter - compost, reducing the total amount of waste, stimulate the circulation of matter in nature and contribute to the establishment of ecological balance. Composting will be presented through the proper video and accompanied by analysis and discussion of certain segments. Acquired knowledge will be checked by comparative analysis of mineral and

Acquired knowledge will be checked by comparative analysis of mineral and organic fertilizers, which the participants will do in groups and present.

- 1. Computer and video screen
- 2. Whiteboard and markers
  - 3. Paper

## **Objectives**

## **Activities**

**Materials**