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 Branka Ljevnaić-Mašić
University University of Novi Sad, Faculty of Agriculture
Course The plants - bioindicators of habitat conditions
Target Agricultural Middle Schools
Type blended

Duration 2 days - 16 hours

Description

The purpose of the course is enabling the various participants in the assessment of the environmental conditions that exist in a given habitat, based on the ecological analysis of the flora and analysis of plant life forms in a given habitat. At the end of completion of the course, participants should master theoretical and practical knowledge of bioindicators - phytoindication ie. the importance and application of plants in the assessment of site conditions, and to be able to apply the acquired knowledge in practice.

Theoretical part:

The term of bioindication - phytoindication. Phytoindicators and their importance. Ecological factors. Adaptations of plants to site conditions and adaptive mechanisms. Life forms of plants. Indicator values (ecological indices) of plants and their application. An overview of major plant species as bioindicators of specific habitats and soil (clean and polluted aquatic ecosystems, dry, thermophilic, cold, oligotrophic, eutrophic, saline habitats, acidic and alkaline soils, land loaded with heavy metals, heliophytes and sciophytes, calciphilic and calciphobous plants, serpentinophytes, etc.) - taxonomic, morphological, biological and ecological characteristics.

Practical part:

Application of plants as bioindicators. The spectrum of life forms of plants. The ecological analysis of the flora. Determination and recognition of plants as bioindicators of specific habitat/land (basis on the morphological, biological and ecological characteristics, site conditions).

Objectives

Contents

Understanding the terms of bioindication – phytoindication. Introducing with the bioindikaction potential of plants, their significance and application in assessing of habitat conditions. Practical application of indicator values (environmental indices) of plants in bioindication. Acquiring of skills in the determination and recognition of plant species as bioindicators of specific habitats and soil (clean and polluted aquatic ecosystems, dry, thermophilic, cold, oligotrophic, eutrophic, saline habitats, acidic and alkaline soils, land loaded with heavy metals, heliophytes and sciophytes, calciphilic and calciphobous plants, serpentinophytes

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etc.). Acquiring of skills in recognizing the basic characteristics of the specific habitat/land based on phytoindicators.

Through the individual work and work in groups, course participants will have the opportunity to practically apply the acquired knowledge of phytoindication and to develop the skills of teamwork, to discuss and make decisions, and encouraging professional exchange of teachers.

Activities

During the theoretical part of the course, it is envisaged that participants listen to lectures about bioindication and about plants as bioindicators of habitat conditions, actively participate in the discussion with questions, connect previous knowledge and adopt new concepts/terms, to work individually and in groups on specific tasks. During individual and group work, course participants will have the opportunity to solve the given problems about plants as bioindicators of habitat conditions (calculation of ecological analysis, analysis of plant life forms etc.)

The part of the course will be online, using the Internet and Moodle. At the online course, participants will be given the necessary literature, and will have the possibility of evaluating the acquired knowledge by solving online test about phytoindication and discuss online about that.

Materials

PC/laptop, *PowerPoint* presentations, Internet, literature, printed pictures of plants, tables, calculator, notebook