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	Dragan Nikolić
University	University of Belgrade, Faculty of Agriculture
Course	Hybridization of fruit trees and grapevine
Target	Agricultural Middle Schools
Type	classic
Duration	1 day - 8 hours
Description	Hybridization i.e. crossing is the most important and most effective way to create new varieties of fruit trees and grapevine. This course is designed for teachers of secondary vocational schools in the field of fruit science and viticulture so that they can modernize knowledge in this field. During the course, participants will renew the knowledge acquired at faculty and meet with the new procedures and skills for the creation of a new variety. New knowledge will be gained in the field of inbreeding and heterosis breeding, crossing techniques and working with hybrid seeds and seedlings. Teachers will get during the theoretical and practical schooling comprehensive overview of current knowledge in this field. Attending this course and new skills within the crossing techniques will facilitate teachers work with their learners.
Contents	The first and second topic will involve common discussions and the renewal of previously acquired knowledge about the significance and objectives of hybridization, the choice of parents for hybridization, hybridization division and the most important ways of crossing. The third topic will involve the modernization of the knowledge and introduction with new elements of inbreeding and heterosis breeding and practical procedures in the technique of hybridization. The fourth topic will involve new knowledge about working with hybrid seeds and seedlings.
Objectives	The overall objective of the course is attendants renewal of the previously acquired knowledge and learn to track innovation in the field of fruit trees and grapevine breeding, which contributes to improving teaching. Specific goals of the course are: 1. To increase the professional competence of teachers in line with new trends in the field of hybridization and their training for practical application of innovations in this field in accordance with the needs of the peculiarities of educational profiles. 2. Acquisition of practical knowledge about important ways for create new varieties of fruit trees and grapevine, primarily through mastering the

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technique of hybridization and work with hybrid seeds and seedlings. Acquired knowledge teachers should also allow standalone teaching and scientific work in a given field and announce the results at seminars and scientific meetings.

The teacher will inform the course attendants with the plan and schedule of work in the course.

Participants will complete a questionnaire that will be checking existing knowledge of hybridization of fruit trees and grapevine.

Renewal the acquired knowledge within the first and second topic will be carried out through a Power Point presentation.

The teacher will divide course attendants into groups (5 members) and give them tasks to practical examples and through discussion that they exercise of crossing ways. Course participants will present the results of their group in front of the teacher and all the other groups.

Activities

The third and fourth topic will be exposed primarily through a Power Point presentation of teacher and presentation of acquired knowledge and experience in this area interested participants of the course before the other participants of the course, and then practical work in the field and laboratory.

On the field will be demonstrate new procedures of emasculation, isolation of flowers, collecting of pollen and pollination. The teacher will divide course participants into groups (3 members) and each group will practice procedures for crossing, applying new skills which have been demonstrated by the teacher.

The course attendants will practice in the laboratory of new separation techniques and sowing of hybrid seeds.

At the end of the course, participants will solve per 30 questions via the test from the entire area of the course and answer on questions related to the evaluation of the course and teacher.

Materials

For the realization of the proposed course need the space (classroom with thirty seats), computer and projector. In this space through a Power Point presentation will be performed theoretical part of the teaching and evaluation of the course participants through tests. For practical implementation of the hybridization methods have required orchard or vineyard, laboratory, as well as necessary consumable materials.