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    | Nataša Duduk                                   |
|------------|------------------------------------------------|
| University | University of Belgrade, Faculty of Agriculture |
| Course     | Postharvest pathogens of fruits and vegetables |
| Target     | Agricultural Extension Service                 |
| Туре       | classic                                        |
| Duration   | 1 day - 8 hours                                |

Plant diseases are the cause of economic losses in crop production, which is why great care in modern agriculture is directed towards the protection of plants during cultivation. However, plant pathogens lead to postharvest fruit rot and can cause significant losses. This issue has not received sufficient attention in the basic studies of Phytomedicine, therefore the aim of this course is updating knowledge about the most important postharvest pathogens of fruits and vegetables and the introduction of comprehensive control measures that will contribute to the achievement of high yields and reducing damage caused by postharvest decay. Through this course advisory service members will be trained to transfer their knowledge to farmers regarding the importance of postharvest plant pathogens and a variety of control measures which will help reduce postharvest economic losses.

| Contents | 1. The first topic will cover the economic losses, the conditions necessary for development of postharvest diseases (during storage and warehousing), sources of inoculum, infection and colonization of pathogens, as well as diagnostic methods. |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | 2. The second topic will include the most important postharvest pathogens of various fruit and vegetable crops, as well as their control management.                                                                                               |

 Improving knowledge of economic importance, epidemiology, diagnostic methods and control of causal postharvest pathogens of fruits and vegetables, as well as the skills of giving accurately diagnosis of diseases and appropriate control measures.

**Objectives** 2. Developing the ability to connect knowledge from different fields of plant pathology, pomology and vegetable crop production.

3. Contribution to the development of the capacity to apply the acquired knowledge to new situations, making the program of control measures to reduce the economic loss due to the presence of pathogenic fungi.

Activities 1. The course will be conducted as interactive teaching. It will consist of an

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|           | introductory part which will provide the participants with the information                                   |
|-----------|--------------------------------------------------------------------------------------------------------------|
|           | regarding themes and objectives of the course.                                                               |
|           | 2. Participants will complete a brief test that will check their knowledge about the                         |
|           | causal agents of postharvest decay of fruits and vegetables.                                                 |
|           | 3. After that, the teacher will, in accordance with students` prior knowledge, give                          |
|           | lecture and inform students about content on the first topic trough power point presentation and discussion. |
|           | 4. Then the teacher divide participants into groups and each group will be                                   |
|           | assigned to give a preliminary diagnosis of the disease on a specific example.                               |
|           | 5. Presentation of groups work and its public justification in front of the whole                            |
|           | group.                                                                                                       |
|           | 6. The second topic will be exhibited depending on the previous knowledge of                                 |
|           | students in the form of a power point presentation and discussion about individual experiences.              |
|           | 7. Previously formed groups of students will be assigned to make a program of                                |
|           | control measures for certain types of fruit or pathogenic fungi and to present                               |
|           | publicly in front of the whole group.                                                                        |
|           | 8. At the end of the course, participants will do a test for advancement                                     |
|           | evaluation.                                                                                                  |
|           |                                                                                                              |
| Materials | The printed material, decayed fruits and vegetables that will be used to diagnoses,                          |
| waterials | microscopic slides, water, needle for slide mount preparation, microscope.                                   |