Course Unit Descriptor

Study Programme: Fruit Science and Viticulture

Course Unit Title: HARVEST AND POSTHARVEST OF FRUIT AND GRAPES

Course Unit Code: 30VV8032

Name of Lecturer(s): associate prof. Nenad Magazin, associate prof. Dragoslav Ivaničević

Type and Level of Studies: Bachelor academic studies

Course Status (compulsory/elective): Compulsory

Semester (winter/summer): summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: None

Course Aims:

The goal of course is the acquisition of knowledge in the field of harvesting and storing fruits and table grapes as well as making students able to apply this knowledge in practice in the process of harvesting and storing fruits. Students will be trained to independently make decisions about the time of harvesting of certain types of fruits and table grapes based on parameters and methods that will be presented in this course. The course allows students to learn about the various aspects of the fruit post harvest, fruits biochemistry, physiology and pathology, which is of great practical importance in determining the parameters and length of storage of fruits. Students will also be familiar with the modern types of storage capacities for fruit, with the following equipment as well as their mode of operation and management.

Learning Outcomes:

The acquired level of knowledge will enable graduates to independently make appropriate decisions in the production process from harvesting to selling fruit. Since at harvest and during storage of fruits comes to significant losses, acquired knowledge will significantly help in their impairment whether it be on the individual farm, company or cooperative.

Syllabus:

Theory

Biological traits of the fruit. The biochemical and physiological processes in harvested fruit. Changes during ripening of fruits. Determination of the moment of harvest and harvest techniques. The technology of fruit storage. Nonparasitic and parasitic diseases on fruits at the time of harvest and during storage. Packaging for fruit and table grapes. Preparation of fruit and table grapes for the market. Transport of fruit and table grapes. New methods of storing fruit and table grapes and treatments after harvest. Control of storage conditions.

Practice

Methods for determining the moment of harvesting. Fruit respiration. Determination of total acidity of the fruit. Determination of dry matter content in the fruits. Identifying nonparasitic and parasitic diseases of fruits. Practical demonstration of packaging used in certain types of fruit and table grapes. Introducing into the coldstore equipment. Facilities for storage of fruits. Visiting the coldstore.

Required Reading:

Gvozdenović, D., Davidović, M. Berba i Luvanje vo a. Nolit, Beograd, 1990.

Keserović, Z, Korać, N., Magazin, N., Grgurević, V., Gvozdenović, D., Bijelić, S., Vračević, B.: Proizvodnja voća i grožđa na malim površinama, Poljoprivredni fakultet Novi Sad, 2008.

Magazin, N., Keserović, Z., Milić, B., Dorić, M., Gošić, J.: Berba i čuvanje plodova jabuke iz integralne proizvodnje, Poljoprivredni fakultet Novi Sad, 2013.

Žunić, D., Garić, M.: Posebno vinogradarstvo – Ampelografija 2, Poljoprivredni fakultet Priština, 2010.

Wills, R., McGlasson, B., Graham, D., Joyce, UK, 2007.

Weekly Contact Hours: 7 Lectures: 4 Practical work: 3

Teaching Methods:

Lectures, presentations, films, orchard visits, laboratory work, practical work on experimental fields

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class	5	written exam	
participation		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Practical work	5	oral exam	40
Preliminary exam(s)	30	•••••	
Seminar(s)	20		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.