

Study Programme: Fruit science, viticulture and horticulture – module Fruit science and viticulture			
Course Unit Title: Pesticides used in orchards and vineyards			
Course Unit Code: 19.VI1001			
Name of Lecturer(s): Slavica M. Vuković, Maja U. Meseldžija			
Type and Level of Studies: Undergraduate academic studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Winter			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 3			
Prerequisites: Diseases and Pests of fruit trees and vines			
Course Aims: The aim of the course is to provide basic knowledge about the use of pesticides and non-pesticide substances against diseases, pests and weeds in orchards and vineyards.			
Learning Outcomes: Acquired knowledge of the course is the basis for the implementation and management of different plant protection measure in the production of fruit and grapes, in order to maintain losses, environmental pollution and chemical usage at acceptable level.			
Syllabus:			
<i>Theory</i>			
The main classification of pesticides. The formulations of pesticidal products. Toxicity and selectivity. Application of zoocides, fungicides and herbicides in fruit orchards and grapevines. Mode and mechanism of action of pesticides. Application conditions, the possible effects and assessment as well as the consequences of pesticides application. The importance of mixing pesticides for different purposes. The application of non-pesticides in orchards. Development and implementation of strategies for pesticide use.			
Change in the sensitivity of harmful organisms to pesticides and anti-resistance strategy.			
<i>Practice</i>			
Toxicology and efficacy of pesticides (insecticides, fungicides, herbicides); Phytotoxicity; Mixing pesticides and non-pesticide substances. Selectivity of pesticides; Methods for bioassay; Determination of resistance.			
Required Reading:			
Indić, D., Vuković, S. (2012): Praktikum iz Fitofarmacije (fungicidi, zoocidi), Univerzitet u Novom Sadu, Poljoprivredni fakultet.			
Janjić, V. (2005): Fitofarmacija, Društvo za zaštitu bilja Srbije, Belgrade.			
Janjić, V. (2009): Mehanizam delovanja pesticida, Društvo za zaštitu bilja Srbije, Belgrade.			
Weekly Contact Hours: 3	Lectures: 2x15 = 30		Practical work: 1x15 =15
Teaching Methods: Lectures – oral presentation and direct communication; Visual (presentations, illustrations); Practical classes – laboratory-experimental methods and demonstrations.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	40
Practical work		oral exam	30
Preliminary exam(s)	20	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,			

project presentation, seminars, etc.