Course Unit Descriptor

Study Programme: Agricultural Economics

Course Unit Title: Insurance
Course Unit Code: 3OAE5I43

Name of Lecturer(s): Todor Marković, Ph.D., Associate Professor

Type and Level of Studies: Undergraduate Academic Studies

Course Status (compulsory/elective): Elective

Semester (winter/summer): Winter

Language of instruction: English/German (depending on participants)

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

Number of ECTS Allocated: 6

Prerequisites: None

Course Aims:

Many decisions in agriculture and food industry have to be made under uncertainty. Risk, however, adds a considerable degree of complexity to the decision making process. This course presents the theoretical concepts of rational choice under uncertainty and develops the building blocks for risk management in agribusiness. Once the necessary statistical tools are reviewed, various indicators of the firm's risk exposition are discussed, including quantitative methods for risk assessment. Moreover, the foundations of stochastic optimization are presented.

Learning Outcomes:

The theoretical part enables the students to understand the most important risk management tools, as insurance or weather derivatives (futures, options or swaps). Much emphasis is put on the numerical aspects of risk management. For example, students will be practically advised to use stochastic simulation or to price an option.

Syllabus:

Theory

Introduction to risk management (meaning and measurement of risk, classification of risk sources, components of a risk management system, probability distributions and quantitative methods for risk assessment); Approach to risk management (phases of qualitative and quantitative risk management); Measures to risk reducing (risk avoiding, diversification, building of reserves, preliminary contracts and futures contracts, insurance); Basic features of insurance (the concept, basic functions and types of insurance); Basic elements of insurance (insurance premium, damage assessment and reimbursement in insurance, insurance sum); Insurance in Agriculture (livestock and crop insurance); Crop insurance (insured items, risk types, reimbursement); insurance systems in plant production (yield insurance, insurance of economic indicators, whole farm insurance, index insurance); Weather derivatives (concept and theoretical background, types of derivatives, weather contracts and market of weather derivatives, delineation of weather derivatives and traditional insurance, use of weather derivatives in agriculture).

Practice

Theoretical lectures are accompanied by tutorials. In tutorials, students apply the knowledge for resolving issues obtained in lectures.

Required Reading:

Dorfman, M. S.: Introduction to Risk Management and Insurance (9th Edition). Prentice Hall, New Jersey, 2007.

Hirschauer, N., Mußhoff, O.: Risikomanagement in der Landwirtschaft. Agrimedia-Verlag, Clenze, 2012.

Marković, T.: Weather Derivatives and Risk Management in Agriculture. University of Novi Sad, Faculty of Agriculture, Novi Sad, 2013.

Marković, T., Ivanović, S., Radivojević, D.: Costs and Investments in Animal Feed Production. University of Novi Sad, Faculty of Agriculture, Novi Sad, 2014.

Ivanović, S., Marković, T.: Management of Investment in Agribusiness. University of Belgrade, Faculty of Agriculture, Belgrade, 2018.

 Weekly Contact Hours:
 Lectures: 2
 Practical work: 2

 Teaching Methods: Lectures, seminars, hands-on-exercises

 Knowledge Assessment (maximum of 100 points):

 Pre-exam obligations
 points
 Final exam
 points

 Active class participation
 20
 written exam
 50

 Practical work
 oral exam

Pre-exam obligations	points	Final exam	points
Active class participation	20	written exam	50
Practical work		oral exam	
Preliminary exam(s)			
Seminar(s)	30		
The methods of knowledge assessment may differ; the table presents only some of the ontions; written exam, oral exam, project presentation, seminars, etc.			

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