

Discipline	<i>PLANT PRODUCTION QUALITY</i> code: 34 winter semester		
Specialty	AGRONOMY		
ECTS credits: 5	Form of assessment: Continuous assessment		
Lecturer	Assoc. prof. Miglena Drumeva PhD Room NUK 331 Phone: +359 52 385 725 E-mail: m_drumeva@tu-varna.bg		
Department	PLANT PRODUCTION		
Faculty	<i>FACULTY OF MECHANICAL ENGINEERING AND TECHNOLOGY</i>		
Learning objectives: The curriculum is intended for students of a Bachelor's degree program in Agronomy. The "Quality of Plant Products" course gives students a broad understanding of the importance of cultivated plants in human life as a source of energy and raw materials for industry and for the cycle of nature. Plant production is an important basis for the existence of human society. In connection with the rapid increase of the population of the earth and its feeding, the task is to increase the quantity and quality of the plant products. The quality of plant products is a set of properties that determine their suitability for use as human and animal food, as raw materials for the industry (garments, pharmaceuticals, auxiliary materials, etc.), such as seeds and planting material. As a criterion for the quality of food products raw proteins, raw fats, raw ash, non-essential extracts, certain mineral elements, certain vitamins and acids are most commonly used. Students study the quality of plant products regarding the heredity of the plants and the influence of the external factors. The main elements of the qualitative characteristics are studied in detail for the different types of crops or groups of plant species: proteins, amino acids, carbohydrates, vitamins, minerals and others. The quality of plant production also depends on transport modes and storage conditions. Therefore, information on the impact of preservation on the quality of grain and other plant products is also provided.			
CONTENTS:			
Training Area		Hours lectures	Hours seminar exercises
Quality criteria for plant products intended for human and animal food		2	
Quality criteria for plant products intended for industry.		2	
Heredity and quality.		2	
Soil influence. Fertilization as an important factor for the productivity and quality of plant products.		2	
Relationship between quality and pollution of nature.		2	
The role of individual agrotechnical factors for the quality of production.		2	

Climatic factors and the quality of production - humidity, temperature, light.	2	
Wheat quality.	2	
Barley quality.	2	
Quality of oats for feed and human consumption.	2	
Maize quality.	2	
Bean quality.	2	
Soybean quality.	1	
Potato quality.	2	
Cotton quality.	2	
Sunflower quality	2	
Quality of wheat, barley, sunflower and maize seeds.		6
Quality of planting material from potatoes.		2
Physical and milling properties of wheat grain.		4
Chemical composition of the grain.		4
Determination of technological qualities of flour: color and structure, moisture, ash content, wet and dry gluten		6
Quality of sunflower oil.		4
The common bean as a source of protein and calories.		2
Taking an average sample and determining moisture and impurities		2
TOTAL: 60 h	30	30