COURSE REGISTRATION FORM

Teacher: Nemanja Mirković
University: University of Belgrade, Faculty of Agriculture
Course: Microbiological Food Safety
Target: Agricultural Middle Schools
Type: classic
Duration: 2 days - 16 hours

Description: The purpose of organizing a two-day seminar with lectures is to familiarize teachers with the sources of pathogenic microorganisms in food, characteristics of pathogenic microorganisms in food and the types of food that are carriers of pathogenic microorganisms. Recognizing the importance of the successful detection and identification of pathogenic microorganisms in food, using standard molecular and microbiological methods. Introducing teachers with corrective procedures for the control of pathogens in food. Implementation of this program is achieved improving the professional competence of teachers of secondary schools in the field of application of microbiological food safety.

Contents:
1. Expanding the knowledge to the latest data about the sources of pathogenic microorganisms in food, both in the production process and at the end of the production process.
2. Disadvantages and advantages of the classical microbiological methods in relation to the modern molecular methods for the detection of pathogenic microorganisms in foods.
3. Corrective procedures in the food industry for the control of pathogenic microorganisms in the food.

Objectives:
1. Expansion of knowledge of teachers about the source of pathogenic microorganisms in food
2. Introduction to the problems in the food industry, causes of contamination of food with pathogenic microorganisms
3. Getting started with modern molecular methods for detection of pathogenic microorganisms in food
4. Consideration of the advantages and disadvantages of conventional microbiological methods in comparison with modern molecular methods for detection of pathogenic microorganisms in food
5. Strengthening the ability of teachers in the implementation of corrective procedures for the control of pathogens in food

## Activities

First day:
Pathogens in food, a review by groups of microorganisms, where can be found. Problems caused by pathogenic micro-organisms in the food industries, the most recent data. New pathogens, opportunistic pathogens in foodstuffs. Introduction to modern methods for the detection of microorganisms in food products. Teachers will work in groups on a comparison of conventional microbiological methods and modern molecular methods for the detection of pathogenic microorganisms in food products (skills, working time, price and sensitivity of the method).

Second day:
Introduce participants of the course with the problems that are facing the food industry to ensure microbiologically safe product (standards, regulations). Corrective procedures for the control of pathogens in the food industry. Course participants will work in groups in the specific case of the introduction of corrective actions for the control and elimination of pathogenic microorganisms in the food industry.

## Materials

Computer with video beam, blackboard, chalk.