The organic farms structuring (Ist Year of study, Ist and IInd Semester)

Credit value (ECTS) 5+4

Course category
Domain (Imposed)

Course holder:
Assoc. prof. PhD Marius Sorin ZAHARIA

Discipline objectives (course, practical works and project)

The aim of the course is to have students acquire knowledge on establishment and operation of organic farms, the main sectors and their position in the farm. It also will analyze the place and role of organic farms in the agricultural productive system.

Practical work and the project aims to familiarize students with the composting technique and design of organic farms.

Contents (syllabus)

Course (chapters/subchapters)
Introduction: The concept of organic farm. Necessity to promote organic farming for economic and environmental reasons. Typology and naming of organic farms.
Theoretical bases of organic farming. Principles and rules in the vegetable and animal sector of farm.
Organic farm, agricultural and forestry mixed system. The position and role of the forestry sector in organic farms. The main sectors, compulsory of organic farms (vegetable sector, animal sector, fertilizer production sector, administrative and household sector). Ancillary sectors, annexes and their role in the organic farms functioning. Structure and functions.
The organic farms position in the agricultural productive system. **Economic and environmental results of organic farms.** Actual situation and prospects of expansion of organic farms. Economic results: production, energy and financial balance sheets. Ecological and environmental effects of organic farms.

Practical works
The composting process organization: raw materials, the quality of their proportion in the mixture.
Composting methods and technique of this process. Collecting raw material, shredding their, proportion in the mixture, choosing the method of composting.
Composting in the oodles, aerobic, directed. Location in space and arranging the oodles. Directing the process.
The control factors: temperature and humidity. Necessary equipment, working method. The reshuffle and the corrections factors.
Techniques and recipes for biodynamic preparations obtaining.
Final colloquium of knowledge evaluation

Project
Documentation necessary for designing organic farms. Procurement, analysis and usage. Drawing up conversion plan.
Location in space and designing forest curtains against the wind and erosion.
The calculation of agricultural area of the farm. Determining how to use (arable, grassland, vineyards, orchards) on ecological criteria, depending on terrain, soil and climate.
Design crop rotations in arable and crop rotations mixed with vineyards and orchards.
The calculation of forage production, nutrient units and animals load per agricultural unit area.
Establishing animal species.
Manure quantities calculating and annually quantity compost resulting.
Final colloquium of knowledge evaluation

Bibliography

1. Davidescu Dumitru, Davidescu Velicica, 1994 – *Agricultura biologică – o variantă pentru exploataţiile mici şi 3. mijlocii.* Editura Ceres, Bucureşti.
2. De la Rossi R., Nota D., 2000 – *Nature and landscape production potentials of organic types of agricultures.* Agriculture ecosistem and environment, Editura Elsevier.
3. Lampkin N., 1994 – *Organic farming.* Farming Press, U.K.
4. Sattler şi Wistinghausen, 1989 – *Ferma biodinamică.* Editura Ulmer, Stuttgart, Germany.
5. Zaharia Marius, 2010 – *Structurarea fermelor ecologice*, Editura "Ion Ionescu de la Brad", Iaşi.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Written examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	40%

Contact

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