



DEGREE CURRICULUM
ORGANIC PRODUCTION

Coordination: VILLALBA MATA, DANIEL

Academic year 2023-24

Subject's general information

Subject name	ORGANIC PRODUCTION			
Code	100330			
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Double bachelor's degree: Bachelor's Degree in Veterinary Medicine and Bachelor's Degree in Science and Production	5	OPTIONAL	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRACAMP	PRAULA	TEORIA
	Number of credits	1.2	1.6	3.2
	Number of groups	2	1	1
Coordination	VILLALBA MATA, DANIEL			
Department	ANIMAL SCIENCE			
Teaching load distribution between lectures and independent student work	Presential: 60 h Non presential: 90 h			
Important information on data processing	Consult this link for more information.			
Language	50% Catalan 50% Spanish			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ARGEMI ARMENGOL, IMMACULADA	immaculada.argemi@udl.cat	2,6	
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Learning objectives

The student who passes this course must:

Know the concepts of sustainability and the different types of alternative livestock to conventional, especially classified as organic by European legislation.

Know the European legislation on organic farming and the implications of its implementation in swine, poultry and ruminant productions.

Know and learn to use the tools for diagnosing the sustainability of livestock farms.

Know the principles of health and animal welfare for the sustainable development of livestock systems

Competences

General competences

C1. Know the conditions of organic production and be able to manage this type of livestock systems

CB2: That students know how to apply their knowledge to their work or vocation in a professional way and possess the competencies that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

CG1 Identify animals and products of animal origin, as well as their importance in society and in the food chain.

CG4 Manage animal production systems in order to increase efficiency (technical, economic, environmental, ...) and sustainability of the food chain over time.

CE6 Identify the different elements and particularities of the agro-livestock ecosystem. Evaluate the importance and characteristics of the different animal species, racial groups and productive aptitudes of the same to be able to choose the most suitable genetic material based on the different possible productive objectives. Describe the different livestock production systems (extensive, intensive, etc.) and be able to understand the role of animals in the food chain

CT9 Select and manage the available written and computerized sources of information related to the professional activity.

CT12 Acquire comprehensive training.

CT13 Maintain an ethical behavior in the exercise of their responsibilities before the profession and society

Subject contents

UNIT I. Introduction (14 h)

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Topic 1. The concept of sustainable livestock and organic livestock. Definition of sustainability. Conceptions of organic production. (THEORY: 2h)

Topic 2. Social and economic importance of organic livestock. Past, present and future. Definition of normative organic production. Censuses and statistics. (THEORY: 2h, PRAULA: 2h)

Topic 3. Health and welfare in the field of organic livestock. Therapeutic and preventive tools. Natural therapies and their use. Phytotherapy. Homeopathy. (THEORY: 6h, PRAULA: 2h)

UNIT II. Ecological and Sustainable Livestock in different livestock species (40 hours)

Topic 4. Production of organic forages. Key points that condition the quality of forages in organic production. (THEORY: 2h)

Topic 5. Pastures and meadows and sustainable livestock. Pastoral harvesting systems. Integration of grazing in organic production systems. (THEORY: 2h; PRAULA: 2h)

Topic 6. Sustainable and organic poultry production. Nutrition and facilities under organic production regulations. Organic production systems. Main challenges of organic production in poultry. (THEORY 4 hrs; PRAULA: 2 hrs)

Topic 7. Sustainable and organic pig production. Nutrition and facilities under organic production regulations. Ecological production systems. Main challenges of organic production in ruminants. (THEORY 6h; PRAULA: 2h; PRACAMP: 6h)

Topic 8. Sustainable and organic ruminant production. Nutrition and facilities under organic production regulations. Ecological production systems. Main challenges of organic production in ruminants. (THEORY 4h; PRAULA: 4h; PRACAMP: 6h)

UNIT III. Analysis / Diagnosis of the sustainability of livestock farms (6 hours)

Topic 9. Methodologies for Analysis / Diagnosis of the sustainability of livestock farms. Practical approaches to the evaluation of sustainability at the farm level. The MESMIS Assessment Framework. Life cycle assessment in livestock. Ecosystem services. (THEORY: 4h; PRAULA: 2h)

CLASSROOM PRACTICES Classroom practices will consist of discussion seminars and student participation in the field of the corresponding topic.

FIELD PRACTICES Visits to livestock farms where sustainability and / or organic production criteria are applied. This visit or visits (depending on the availability of the farmers) will be complemented with a seminar to discuss the visits

Methodology

Type of activity	Description	Student face-to-face activity		Non-face-to-face student activity		evaluation	Total time / ECTS
		objectives	hours	Student work	hours	hours	hours
Master lesson	Master class (Classroom. Large group)	Explanation of the main concepts	32	Study: Know, understand and synthesize knowledge	46	2	80 / 3.2
Problems and cases	Participatory class (Classroom. Large group)	Resolution of problems and cases	16	Learn to solve problems and cases	22	2	40 / 1.6
Field practices	Field practice (Medium group)	Execution of the practice: understanding phenomena, measuring ...	12	Study and perform memory	18		30 / 1.2

Observations: 25 h of activity per ECTS credit have been considered

Evaluation

Type of activity	Evaluation Activity Procedure	Number	weight rating
BLOCK1	tests written about the theory of topics 1-5	1	30

BLOCK2	tests written about the theory of topics 6-10	1	30
BLOCK3	Assignments or written tests on problems and cases	5	30
BLOCK4	Field practices Delivery of reports. Written or oral tests	1	10
total			100

Observations

A effects of the rating end for a get over the subject it has to obtain one note the same or superior a 5 points as a weighted average of the different BLOCKS. BLOCKS 1 and 2 have a minimum grade of 3.5 to be able to average. If you fail to pass one of BLOCKS 1 or 2, there will be a recovery test for the failed BLOCK. The maximum mark in the event of recovery will be 6 points.

The alternative assessment will consist of an examination of all the theory on the date of recovery which will count for 70% of the grade. It will be necessary, however, to deliver activities related to BLOCK 3 and 4 that will calculate the rest of the grade and that will have to be agreed with the teaching staff of the subject at the beginning of the year.

Bibliography

Basic bibliography

ALFONSO, L. y ESTANY, J. (1996) Organización y esquemas de mejora animal. Universitat de Lleida

Autors Varis, 2011. L'Avicultura ecològica de carn, 2011. Fitxa Tècnica PAE num. 15. DAR, Generalitat de Catalunya

Ayers, R.S., D.W. Westcot. 1987. La calidad del agua de riego en la agricultura. Estudio FAO Riego y Drenaje., 29 Rev 1. Roma.

BUXADÉ, C. (1995) (Coord.). Zootecnia: bases de producción animal. Tomo IV: Genética, patología higiene y residuos animales. Mundi-Prensa. Madrid.

Casasús, I., Sanz, A., Blanco, M., Alvarez-Rodriguez, J., Joy, M., Revilla, R., 2013. Ganadería ecológica de vacuno de carne. Aspectos prácticos. Informaciones Técnicas del Departamento de Agricultura, Ganadería y Medio Ambiente del Gobierno de Aragón Nº249. 20 pp.

Centro de formación de la asociación CAAE, 2006. Avicultura en producción ecológica. Ed. Asociación para el desarrollo sostenible del poniente granadino.

CUNNINGHAM JG. Fisiología Veterinaria. Elsevier, 2005.

FRANDSON RD. Anatomía y Fisiología de los Animales Domésticos. Ed. Interamericana, 1984. DE BLAS, C, GONZALEZ, G, ARGAMENTERIA A, Nutrición y alimentación del ganado. Mundi-Prensa. 1987.

García-Menacho, V. i García, C., 2012. Avicultura Ecológica de puesta. Ed. Agrícola.

Joy, M., Congost, S., Delfa, R., Alvarez-Rodriguez, J., Sanz, A., 2007. Diversificación de las producciones ovinas: Utilización de praderas en el cebo de corderos. Informaciones Técnicas del Departamento de Agricultura y Alimentación del Gobierno de Aragón Nº 175, 12 pp.

Margalef, R. (1981): "Ecología". Ed. Omega, S.A. Barcelona. 252 pp.

Morgan, R.P.C. 2005. Soil Erosion and Conservation, 3rd edition. Blackwell Publishing, Oxford. Hudson, N. 1982. Conservación del suelo. Reverté. Barcelona

Pierzynski, G.M., J.T. Sims & G.F. Vance. 1994. Soils and Environmental Quality. Lewis Publishers. CRC Press, Boca Raton. Florida

POND K, POND K, Introduction to Animal Science. John W iley & Sons, 2000.

Pont, J., 2009. L'avicultura ecològica de posta. Fitxa Tècnica PAE num. 9. DAR, Generalitat de Catalunya

Terradas, J. (1979): "Ecologia d'avui". Ed Teide, S.A. Barcelona. 142 pp <https://sites.google.com/site/miscelaneanatural/proteccion-ambiental/legislacion-ambiental-de-espana-principales-leyes-y-normas>

Vila, Ll., 2012. Producción porcina ecológica. 1. Normativa y certificación de la producción porcina ecológica. SUIS Nº 89, 42-53.

Vila, Ll., Alvarez-Rodriguez, J., Manzanilla, E.G., 2012a. Producción porcina ecológica. 2. Planificación de la producción, dimensionamiento de la explotación e instal·lacions. SUIS Nº 90, 40-47.

Vila, Ll., Alvarez-Rodriguez, J., Manzanilla, E.G., 2012b. Producción porcina ecológica. 3. Manejo del ganado, alimentación y sanidad.

SUIS N° 91, 34-45

Complementary bibliography

Altieri, Miguel A. Agroecología bases científicas para una agricultura sustentable. Lima & b

CIED. 1997

Lampkin, N. Organic farming Ipswich Farming Press Cop. 1990

– # Reglament (CE) 889/2008 de la Comissió, de 5 de setembre de 2008, pel qual s'estableixen disposicions d'aplicació del Reglament (CE) 834/2007 del Consell sobre producció i etiquetatge dels productes ecològics respecte la producció ecològica, el seu etiquetatge i el seu control.

http://www20.gencat.cat/docs/DAR/AL_Alimentacio/AL01_PAE/03_Normativa/Fitxers_estatics/Reg834_v081013.pdf

– # Reglament (CE) 967/2008 del Consell, de 29 de setembre de 2008, pel qual es modifica el Reglament (CE) 834/2007 sobre producció i etiquetatge dels productes ecològics.

http://www20.gencat.cat/docs/DAR/AL_Alimentacio/AL01_PAE/03_Normativa/Fitxers_estatics/Reg1235-08_v110628.pdf

D. Younie y J.M. Wilkinson (Eds.) Ganadería ecológica principios, consejos prácticos, beneficios. Ed Acribia DL Zaragoza, 2004

Congreso de la Sociedad Española de Agricultura Ecológica 5è. 2002 Gijón. La Agricultura y

ganadería ecológicas en un marco de diversificación y desarrollo solidario.

Les dossiers de l'environnement de l'INRA. Ed Institut National de la Recherche Agronomique. <http://www7.inra.fr/dpenv/doa.htm>

París. Publicació periòdica.

Gliessman, Stephen R. Títol Agroecology : the ecology of sustainable food systems / Stephen R. Gliessman, with Eric W. Engles

Proceedings dels congressos internacionals de la NAHWOA. Network for the animal health and welfare in organic agriculture.

Blair, R., 2007. Nutrition and Feeding of Organic Pigs. Ed. CABI Publications, Reino Unido, Sundrum, A., 2011. Epidemiological study concerning the characteristics of organic pig farming

in selected European countries. CORE Organic Project Series Report no.: 1904.