



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Antinutritional Factors in Feeds							
Course Code		VHB629		Coure Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	147 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Antinutritional factors existing in feedstuffs. Effects of them on animal. Raising experts knowing alleviation of negative effects of antinutritional factors. Teaching true and updated knowledge for bringing candidates as open to technological developments and occupational applications.							
Course Content		Identification and classification of antinutritional factors in feeds. Effects of antinutritional factors on animal health and performance.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	28
Final Examination	1	60
Assignment	5	12

Recommended or Required Reading

1	Ergül, M. (1988). Yemler Bilgisi ve Teknolojisi, Ege Üniversitesi Basımevi, İzmir.
2	Kılıç, A. (1988). Yemler ve Hayvan Besleme, Bilgehan Basımevi, İzmir.
3	Coşkun, B., Şeker, E., İnal, F. (2000) Yemler ve Teknolojisi, Selçuk Üniversitesi Veteriner Fakültesi Yayın Ünitesi, Konya.
4	Ensminger, M.E., Olentine, C.G. (1980) Feeds and Nutrition, The Ensminger Publishing Company, California.
5	Cheeke, P.R. (1999) Applied Animal Nutrition: Feeds and Feeding, Prentice Hall International, USA.

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and classification of antinutritional factors .
2	Theoretical	Antinutritional factors in legumonsa feeds.
3	Theoretical	Glycosides
4	Theoretical	Alcoloids
5	Theoretical	Phenolic compounds- gossypol
6	Theoretical	Phenolic compounds- tannins
7	Theoretical	Antinutritional factors in fats.
8	Intermediate Exam	Midterm exam
9	Theoretical	Non starch polysaccharides
10	Theoretical	Anti nutritional proteins
11	Theoretical	Toxic amino acids
12	Theoretical	Nitrate and nitrites
13	Theoretical	Osterogenic substances
14	Theoretical	Mineral binding compounds.
15	Theoretical	Homework presentation.
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	5	4	1	25
Reading	14	0	5	70
Midterm Examination	1	8	2	10



Final Examination	1	12	2	14
Total Workload (Hours)				147
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Antinutritional factors in feeds.
2	Effects of these factors in animals and ameliorating these negative effects.
3	Non starch polysaccharides
4	Antinutritional factors in fats.
5	Phenolic compounds- tannins

Programme Outcomes (Animal Nutrition and Nutritional Diseases (Veterinary Medicine) Doctorate)

1	Knows information about importance of forage and concentrates in basic animal nutrition for protecting animal health in scientific and technological animal production.
2	Have ability to formulate economical and full-satisfactory rations with considering product quality and health. May inform animal producers about practical/appropriate feeding methods.
3	Can adapt to recent scientific and technological developments in animal nutrition easier and produce proper strategies against to problems on this field.
4	Knows the properties of feeds used in proper and economical rations formulated due to needs of animal species.
5	Can give information to animal producers about properties of common feedstuffs used in Turkey
6	Knows organoleptic, physical diagnostic and chemical analysis methods used in determining feed quality.
7	Have information about processing and the effects of processing on animal yield.
8	Can identify the term "feed hygiene" and have information about the usage availability of contaminated feedstuffs.
9	Can apply the informations related to feed additives in a proper way.
10	Understands the results and factors decreasing production.
11	Knows the nutrition related diseases and their solution recommendations which may be applied in feeding or formulating feeds for preventing nutritonal diseases.
12	Knows about the availability level of feedstuffs after consumed and can perform digestibility trials.
13	Knows the definition of stress, stress sources and effects on health and production level of animals.
14	Have sufficient information on classification, activation and fermentation of rumen microorganisms plus carbohydrate, lipid and protein digestibility.
15	Knows the factors effecting feed intake and negative factors in feedstuffs and prevention of them.
16	Comments on feeding behaviours and related yield parameters.
17	Have information on basic terms related to feed legislation, feeds used in animal nutrition and their legal regulations.
18	Have information about biotechnological research conducted on feeds and animal nutrition.
19	Knows the effects of nutrition on food quality, fertility, immunity and parasite enfestations.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2
P10		5
P15	5	5

