



Department of Animal Resources

Technical Institute of Amedi

Duhok Polytechnic University

Subject: Sheep and Goat production

Course Book – 2018-2019

Lecturer's name MSc, Bilind Mohammed Saleem

Academic Year: 2018/2019

Course Book of Sheep and goat production

1. Course name	Sheep and goat production
2. Lecturer in charge	Bilind Mohammed Saleem
3. Department/ College	Animal Production
4. Contact	e-mail: Bilind.khalaty@gmail.com Tel: +9647504722737
5. Time (in hours) per week	Theory: 1 Practical: 2
6. Office hours	
7. Course code	
8. Teacher's academic profile	Masters in Agriculture, Sheep Production, University of Duhok 2013-2015 Higher Diploma in Agriculture, Poultry Production, University of Salahaddin 2009-2010 Bachelor in Agriculture, Animal Production, University of Duhok 2000-2004
9. Keywords	Sheep, goat, estrus, reproductive, breeding, growth, development.
10. Course overview:	<p>It seems very likely that sheep and goats were among the earlier domesticated species, and played a unique "role" in the development of several civilizations. The rearing of sheep and goats provides a small yet significant supply of animal protein in the form of milk and meat. This is particularly useful for families of low-income farmers and landless laborers. It has been reported that in certain areas 20 to 40% of farmer's cash income comes from sheep and goats. In more remote semi-arid areas, sheep/goat production is the only source of income for their producers.</p> <p>Sheep give rise to three major products namely meat, wool and milk. In many parts of the world, particularly in the temperate regions, meat is the major product and the importance of meat in sheep production is increasing.</p> <p>Australia is still the world's major sheep keeping country and finds wool production. In many parts of the Mediterranean countries, Middle East and Easter Europe, ewes are still kept for dairying. Also, Goats have a large impact on the economy and food supply for people of the tropical world and also several Mediterranean countries. In many parts of the world, people consume more goats' milk than cow's milk, and goat an important source of meat.</p>
11. Course objective:	<p>Our primary aims in sheep and goat production are:</p> <p>First: To provide a description of small ruminants not only in Iraq, but also worldwide to the extent feasible.</p> <p>Second: To cover a wide spectrum of knowledge about sheep and goat production and the factors that influences efficiency in sheep and goat systems and to consider how recently acquired knowledge might be profitably used to improve traditional methods and to create new system.</p> <p>Third: To present the scientific basis for small ruminants managements practices.</p> <p>Fourth: To discuss modern method of the inheritance, nutrition and physiology of small ruminants.</p> <p>Fifth: provide general information of sheep and goat classification, and their characterization especially small ruminants' breeds of Iraqi and other world breeds.</p> <p>Sixth: How to establishment of a flock of sheep & goat (Production system, location, selection of animals... etc.).</p>

<p>Seventh: Describe housing systems (CONSTRUCTION AND EQUIPMENT). Eighth: Describe the methods of identification (ID) and how to record the information of the flock in different type of records. Ninth: knowledge the students the most necessary daily, monthly, yearly field operations which were done such as (castration, shearing, ducking, determination of age and marking....etc.).</p>																	
<p>12. Student's obligation</p> <p>The obligations which may apply to students are; in the first five minutes a group of students (each lecture) should present a short presentation about specific subject related to the practical part of the lecture. The student are obligated to participate to discussion and other activities such as practical, quizzes, field operation and etc</p>																	
<p>13. Forms of teaching</p> <p>The lectures are taught by multi methods for example data-show, board and field application.</p>																	
<p>14. Assessment scheme</p> <p>students are required to take two exams during the entire course. Furthermore, several short exams and activities will be placed during the course.</p>																	
<p>15. Student learning outcome:</p> <p>At the end of the course it is expected that students will fully understand the basic ideas about sheep and goat production. In addition, the student will be able to some extent apply the most provided field work in their future carriers. Furthermore, it is expected that students will be able to participate in scientific discussions related to the subject.</p>																	
<p>16. Course Reading List and References:</p> <ul style="list-style-type: none"> ▪ Key references: <ol style="list-style-type: none"> 1. Owen, J.B. 1976. Sheep production Bailliere Tindall, England. 2. Piper, L. and Ruvinsky, A. 1997. The Genetic of sheep. Cob-Internateal New York, U.S.A. ▪ Useful references: <ol style="list-style-type: none"> 1. Gall, C. 1981- Goat Production. Fletcher and sons Ltd, London. 2. Goat Science and production. Sandra G. Solaiman Wiley-Black Well 2010. ▪ Magazines and review (internet): <ol style="list-style-type: none"> 1. Small Ruminant Research 2. Journal of Animal Science. 																	
<p>17. Theoretical Topics:</p> <table border="1"> <thead> <tr> <th>Week</th> <th>Topics</th> <th>Lecturer's name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Fresher week</td> <td>Bilind M. saleem (1 hrs) (1 week)</td> </tr> <tr> <td>2</td> <td>Introduction</td> <td>Bilind M. saleem (1 hrs) (1 week)</td> </tr> <tr> <td>3</td> <td>Importance and systems of sheep and goat production.</td> <td>Bilind M. saleem (1 hrs) (1 week)</td> </tr> <tr> <td>4</td> <td>External anatomy</td> <td></td> </tr> </tbody> </table>			Week	Topics	Lecturer's name	1	Fresher week	Bilind M. saleem (1 hrs) (1 week)	2	Introduction	Bilind M. saleem (1 hrs) (1 week)	3	Importance and systems of sheep and goat production.	Bilind M. saleem (1 hrs) (1 week)	4	External anatomy	
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4	External anatomy																

5	Internal anatomy	
6	Reproduction in sheep and goat Measures of reproductive efficiency. Puberty of male and female	
7	Reproduction in sheep and goat Breeding season Ovulation rate	
8	Reproduction in sheep and goat Synchronization of estrus Lamb and kid mortality Reproduction of ram and buck.	
9	Meat production Growth and development of body components during pre – natal life.	
10	Meat production Post-natal growth and factors affecting it.	
11	Meat production Carcass composition	
12	Milk production The process of lactation Systems of milk production	
13	Milk production Factor affecting milk production.	
14	Wool production Growth and development of wool fiber. Types of fiber.	
15	Wool production Factors affecting wool yield and quality.	
16	Nutrition of sheep and goat.	
17	Nutrition of sheep and goat.	
18	Genetic improvement of sheep and goat.	
19	Project site selection.	

20	Project and system improvement.	
21	Health and management.	
22	Farm management.	
23	Sheep and goat and economy.	
24	Academic discussion.	
24	Student activities.	
26	Student activities.	
27	Farm trip.	
28	Farm trip.	
29	Farm trip.	
30	Farm trip.	
18. Practical Topics :		
1	Fresh week	
2	Introduction	
3	Terminology of sheep and goats	
4	classification of sheep, Iraqi sheep breed	
5	classification of goat, Iraqi goat breed	
6	External anatomy	
7	Internal anatomy	
8	Housing of sheep and goat and its equipment 1	
9	Housing of sheep and goat and its equipment 2	
10	Identification of Sheep and Goat	
11	Records and record keeping on sheep and goat farms 1	
12	Records and record keeping on sheep and goat farms 2	
13	Preparation for lambing/kidding season	
14	Estrus synchronization	
15	Field operation of small ruminant 1. Dentition.	

16	Field operation of small ruminant 2. Sheep shearing.	
17	Field operation of small ruminant 3. Hoof care and trimming.	
18	Field operation of small ruminant 4. Dipping of sheep and goat.	
19	Field operation of small ruminant 5. Castration.	
20	Field operation of small ruminant 6. Docking.	
21	Site selection for sheep and goat farming	
22	Farm management	
23	Health and management	
24	Sheep and goat economy	
25	Academic discussions	
26	Student activities	
27	Student activities	
28	Farm trip	
29	Farm trip	
30	Farm trip	

19. Examinations:

1. Compositional:

Q. What are the functions of C.L.?

Answer:

Inhibit the release of FSH and LH

Prevent oestrus

Decrease the motility of the muscles in the uterus.

Q. Why males are heavier at birth compared to females;

Answer:

1. Because the operation of sex hormones.
2. The weight of cotyledons are differ.

Q. Which hormones cause the development of the ducts and lobule-alveolar system?

Answer:

Progesterone and oestrogen

2. True or false type of exams:

1. Cortex is the major part of wool fiber. (✓)
2. Sweat gland is attached to Secondary follicles. (X) Primary follicles

3. Multiple choices:

A. Crossing between breeds lead to:

1. Advances puberty (✓)
2. Delay puberty
3. No effect on puberty.

B. Which fibers contain the largest medulla:

1. Hair
2. Kemp(✓)
3. True wool

4. Blanks

1. The phases of parental growth are divided in to....., and.....

Ovum phase, embryonic phase and fetal phase.

5. Definitions

1- Define the following : 1- Puberty

Puberty is the time at which animals reach a level of sexual development that makes them capable of reproduction. Puberty in female animals is the age of the first estrus with ovulation. Puberty in males is the first ejaculate with fertile sperm.

6.Listing

List the following: 1. Factors effecting puberty in sheep and goat?

7. Brief explanations

Explain in brief the factors effecting puberty in sheep and goat?

20. Extra notes:

21. Peer review