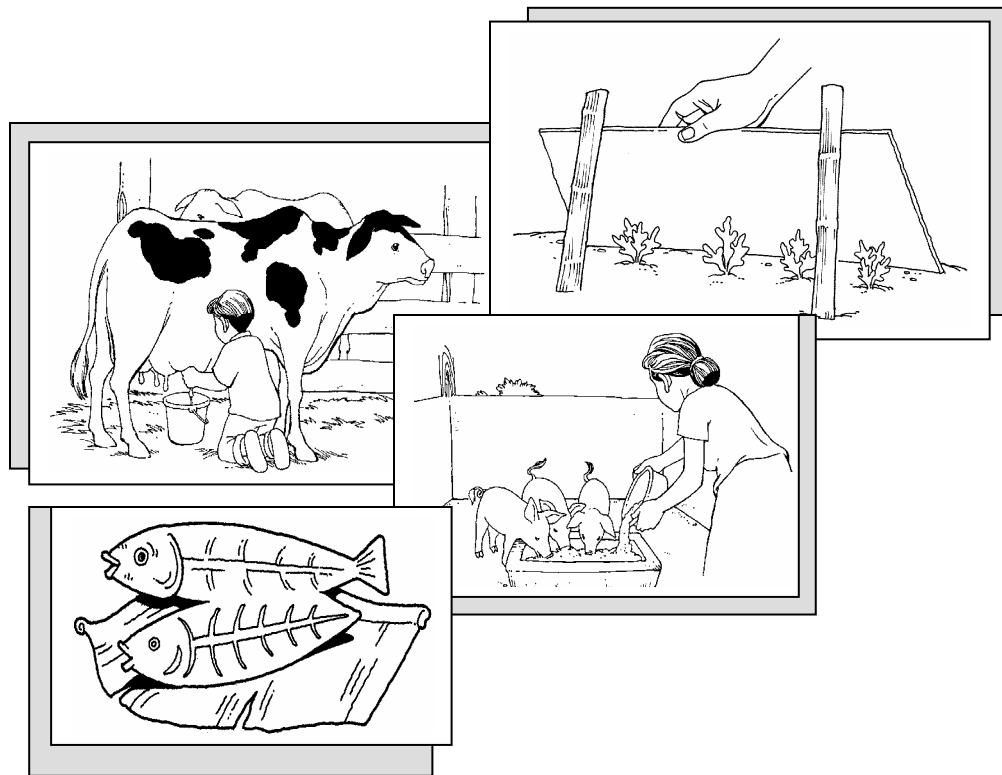


# PROJECT EASE

Effective and Affordable Secondary Education

TECHNOLOGY AND LIVELIHOOD EDUCATION

Agriculture and Fishery Arts



MODULE 11

BUREAU OF SECONDARY EDUCATION

Department of Education  
DepEd Complex, Meralco Avenue  
Pasig City



# *Animal Production*

## *First Year*

### *Module 11*

#### *Feed Rightly, Grow Healthy*



#### *What this module is about*

Have you ever experienced not eating three successive meals in one day? Have you tried also eating too much in one meal? How did you feel? Did it give you any good?

Animals, like human beings need food in order to live. Feeds make up the most expenses in animal production. Feed rightly and grow healthy applies to feeds and feeding of animals. You need to know the kinds of feeds for animals and the right amount of nutrients for them to grow healthy.

In module 10, you learned the kinds of poultry and livestock houses, fixtures, and equipment. After the housing of animals, the next thing to find out is what and how to feed them.



#### *What to learn from this module*

This module aims to:

1. identify the various ingredients of animal feeds;
2. know the appropriate animal rations for different age levels; and
3. explain the proper feeding of animals.



## PRETEST

Choose the letter of the best answer.

1. Requires the highest percentage of expenses in animal production.
  - a. shelter
  - b. equipment
  - c. feeds
  - d. medicines
  
2. Feed given to day-old to 6 weeks chicks.
  - a. pre-starter mash
  - b. layer mash
  - c. chick grower mash
  - d. pullet developer mash
  
3. Feed given to broilers 22-28 days old.
  - a. booster
  - b. pre-starter
  - c. finisher
  - d. starter
  
4. Nutrients utilized to repair broken tissues and maintain proper growth and development.
  - a. carbohydrates
  - b. ash
  - c. vitamins
  - d. proteins
  
5. Nutrients which help regulate body processes.
  - a. carbohydrates
  - b. ash
  - c. vitamins
  - d. proteins
  
6. Feeds given to laying hens.
  - a. pre-starter mash
  - b. layer mash
  - c. chick-grower mash
  - d. pullet-developer mash
  
7. Feed given to farrowing and lactating sows.
  - a. ipil-ipil
  - b. concentrate
  - c. pre-starter
  - d. finisher

8. Daily feed intake in kilograms of pigs 27 weeks old.
  - a. 2.8-2.9
  - b. 2.4-2.5
  - c. 2.3-2.4
  - d. 2.7-2.8
  
9. Feeding system in semi-intensive cattle raising.
  - a. ranching
  - b. tethering
  - c. cut-and-carry
  - d. grazing
  
10. Feed given to broilers 8-14 days old.
  - a. booster
  - b. starter
  - c. finisher
  - d. layer mash

## Lesson 1

### Feeds of Farm Animals

Following is a conversation of Joey and Leah. Let's find out what it is all about.



- Joey : Hello, Leah! Do you know that feeds are very important to animals?
- Leah : What does feed mean?
- Joey : Feeds refer to the food that animals eat to live. Feeds require the most expenses in animal production.
- Leah : Where do feeds come from?
- Joey : Feeds come from various mixed ingredients or the commercially available feeds. These feeds are considered balanced.
- Leah : What do you mean by balanced feeds?
- Joey : Balanced feeds contain various nutrients that promote animal growth. These nutrients include carbohydrates, ash, proteins, vitamins, water and fats and oils.
- Carbohydrates which give animals heat and energy and helps in fattening.
  - Ash is an organic material which supplies materials for developing the growth of bones of animals. It also helps manufacture the shells in poultry.
  - Proteins repair the broken tissues of animals and maintain their growth and development.
  - Fats and oils which supply the animals with heat and energy.
  - Vitamins which help in the body processes of animals and support normal growth and reproduction in animals.

- Water which is essential in all the body processes of poultry. It helps in digestion and absorption of feeds and acts as food carrier and tissue lubricant.

Leah : What are the sources of these feeds?  
Joey : Sources of feeds can be from plants, animals and mineral sources.  
Leah : What will happen if the feeds that animals take are not balanced?  
Joey : If that is the case, animals will not be able to get the essential nutrients for their growth and development which will make them weak and sickly.

What did you learn from Joey and Leah?

### Activity 1

Collect samples of feed rations available in the community. Place the samples in small glass jars. Label including the ingredients / nutrients used in formulating the feeds. Submit this to your teacher.



Self-check:

Enumerate five essential nutrients found in animal feeds and cite their functions in the growth and development of animals.

## Lesson 2

### Feeding Farm Animals

The feeding of animals contributes much to the success or failure of any poultry and livestock industry. This is why animal raiser should pay much attention to the right feeding of animals. On the next page is a sample feed consumption guide for broilers.

Age in days	Ration	Grams per Bird
1-7	Pre-starter or booster	85
8-14	Pre-starter or booster	125
15-21	Starter	225
22-28	Starter	345
29-35	Starter	429
35-42	Finisher	637
43-49	Finisher	723
50-56	Finisher	890

Here's another feeding guide for layers:

Age of the Flock	Kind of Feed
Day old to 6 weeks	Chick starter mash with 20-21% protein (starter mash)
7 to 14 weeks	Grower ration with 16% protein (chick grower mash)
15-20 weeks	Pullet developer with 14% protein (pullet developer mash)
When pullets start laying eggs	Laying mash with 16 to 18% protein (layer mash)

How about the different kinds of swine or hogs? Following will be your guide in feeding hogs of different kinds to ensure good nutrition. Read and analyze the table below.

Kinds of Animals	Feeding Management	Purpose
1. Pre-gestating and gestating sows	Flushing high energy rations, low fiber content	To activate the production of a large number of egg cells for the next breeding season.
2. Sows and gilts	Limited energy feeding	To trim the sow during the gestation period and reduce embryonic mortality.





Here is another table showing the daily feed consumption of growing-finishing pigs.

Age of pigs (weeks)	Live weight (kg)	Daily feed intake (kg)
10-12	20-25	up to 1.2
12-13	25-30	1.2-1.4
13-15	30-35	1.4-1.6
16	35-40	1.6-1.8
17	40-45	1.8-1.9
18	45-50	1.9-2.0
19	50-55	2.0-2.1
20	55-60	2.1-2.2
21	60-65	2.2-2.3
22	65-70	2.3-2.4
23	70-75	2.4-2.5
24	75-80	2.5-2.6
25	80-85	2.6-2.7
26	85-90	2.7-2.8
27	90-95	2.8-2.9
28	95-100	2.9-3.0

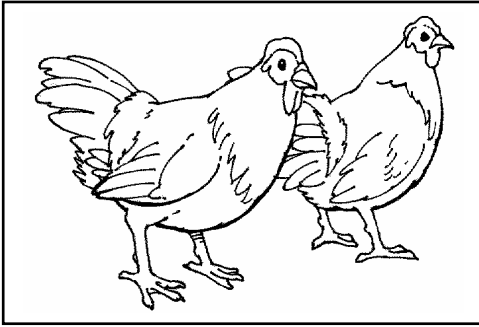
When using the small-scale backyard level of cattle raising, the animals are tethered during the day and kept inside during night. When ranching is applied, animals graze in the pasture area and are free to roam around, with provisions of shelter in case of heavy rain. On the other hand, in a semi-intensive and intensive cattle raising, shelter is provided for the animals in the pasture ranch. There, the animals are fed applying the cut-and-carry method in which feeds are given to the animals in the corral.

Here is an activity for you to check on how much you have learned.

## Activity 2

Study the animals in each box. What kind of feeds are you going to give to each animal? How much feed will you give each? Explain your answer on the space provided.

1.



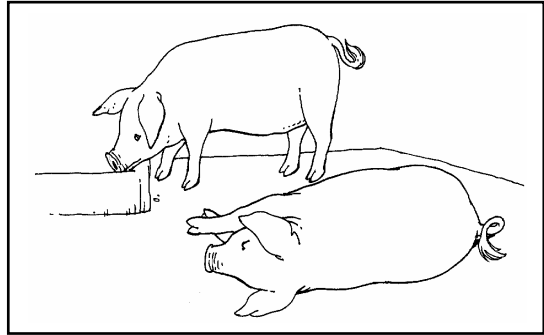
---

---

---

---

2.



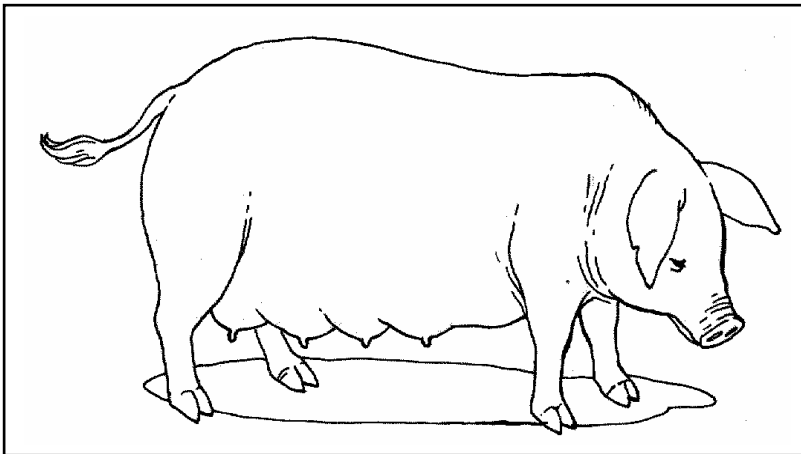
---

---

---

---

3.



---

---

---

---



Self-check:

Match Column A with Column B. Write only the letter of the correct answer on the blanks provided.

A

- \_\_\_\_\_ 1. Broilers 35 to 42 days of age
- \_\_\_\_\_ 2. Layers 7 to 14 weeks of age
- \_\_\_\_\_ 3. Early weaned pigs
- \_\_\_\_\_ 4. Semi-intensive type of cattle raising
- \_\_\_\_\_ 5. Hog fattening – 20 weeks of age

B

- a. pre-starter feed
- b. cut-and-carry
- c. 2.1 to 2.2 kg of feed
- d. finisher
- e. 2.3 to 2.4 kg of feed
- b. grower ration with 16% protein



LET'S SUMMARIZE

- ❖ Feeds represent the highest percentage of expenses in animal production.
- ❖ Right feeding contributes to the success of animal raising enterprise.
- ❖ Feeding the right kind of feeds in the right amounts and in the proper way, ensures healthy and vigorous animals.

To find how well you understood what you've learned from this module, answer the posttest.



## POSTTEST

Choose the letter of the best answer.

1. Represents the highest percentage of expenses in animal production.
  - a. shelter
  - b. equipment
  - c. feeds
  - d. medicines
  
2. Feed given to day-old to 6 weeks old chicks.
  - a. pre-starter mash
  - b. layer mash
  - c. chick grower mash
  - d. pullet developer mash
  
3. Feed given to broilers 22-28 days of age.
  - a. booster
  - b. pre-starter
  - c. finisher
  - d. starter
  
4. Nutrients utilized to repair broken tissues and maintain proper growth and development.
  - a. carbohydrates
  - b. ash
  - c. vitamins
  - d. proteins
  
5. Nutrients that regulate body processes.
  - a. carbohydrates
  - b. ash
  - c. vitamins
  - d. proteins
  
6. Feeds given to laying hens.
  - a. pre-starter mash
  - b. layer mash
  - c. chick grower mash
  - d. pullet developer mash
  
7. Feed given to farrowing and lactating sows.
  - a. ipil-ipil
  - b. concentrate
  - c. pre-starter
  - d. finisher

8. Daily feed intake of pigs 27 weeks of age in kilograms.
  - a. 2.8 - 2.9
  - b. 2.4 - 2.5
  - c. 2.3 - 2.4
  - d. 2.7 - 2.8
  
9. Feeding system in semi-intensive cattle raising.
  - a. ranching
  - b. tethering
  - c. cut-and-carry
  - d. grazing
  
10. Feed given to broilers 8 to 14 days of age.
  - a. booster
  - b. starter
  - c. finisher
  - d. layer

Were you able to give all the answers correctly? If yes, very good. You've done a good job. Certainly, you will be gaining from what you have learned if you will have the chance to apply them. See you again in the next module.

**CONTRATULATIONS!**



## ANSWER KEY

### Pretest/Posttest

1. c
2. a
3. d
4. d
5. c
6. b
7. b
8. a
9. c
10. a

### Lesson 1: Self-check

1. carbohydrates – supplies heat and energy
2. proteins – repair broken tissues
3. vitamins – regulates body processes
4. ash – used in manufacturing shells in poultry
5. water – aids in digestion and absorption of feeds

### Lesson 2: Self-check

1. d
2. f
3. a
4. b
5. c