



Animal Science

Merit Badge Workbook

This workbook is not required but is designed to help you with this merit badge. No one can add or subtract from the Boy Scout Requirements #33215. Use page backs & add pages as needed. Please send comments to: craig@craiglincoln.com. Requirements revised: 2000, Workbook Updated: January 2004.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Ph #: _____

1) Name four breeds of livestock in each of the following classifications: horses,

Breed _____ Tell their principal uses and merits. _____ Tell where the breeds originated.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

dairy cattle,

Breed _____ Tell their principal uses and merits. _____ Tell where the breeds originated.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

beef cattle,

Breed _____ Tell their principal uses and merits. _____ Tell where the breeds originated.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

sheep,

Breed _____ Tell their principal uses and merits. _____ Tell where the breeds originated.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

hogs.

Breed _____ Tell their principal uses and merits. _____ Tell where the breeds originated.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

2) List the principal diseases in your area that afflict the animals in each classification. Describe the symptoms and explain the proper treatment for the diseases you list.

Animal Class: Horses

Diseases	Symptoms and proper treatment
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_____	_____
_____	_____
_____	_____
_____	_____

Animal Class: Dairy Cattle

Diseases	Symptoms and proper treatment
----------	-------------------------------

_____	_____
_____	_____
_____	_____
_____	_____

Animal Class: Beef Cattle

Diseases	Symptoms and proper treatment
----------	-------------------------------

_____	_____
_____	_____
_____	_____
_____	_____

Animal Class: Sheep

Diseases	Symptoms and proper treatment
----------	-------------------------------

_____	_____
_____	_____
_____	_____
_____	_____

Animal Class: Hogs

Diseases	Symptoms and proper treatment
----------	-------------------------------

_____	_____
_____	_____
_____	_____
_____	_____

3) Explain the major differences in digestive systems of ruminant _____

and nonruminant animals. _____

Explain the differences in feeds typically used for beef cattle _____

and for dairy cows. _____

4) Tell how you would properly manage a cow, horse, sheep, goat, or hog, or a poultry flock, including adequate feeding.

cow _____

horse _____

sheep _____

goat _____

hog _____

poultry _____

Tell what must be done to prevent illness, blemishes, defects, and disease arising from improper and unsanitary conditions. _____

5) Tell about three career opportunities in animal science. _____

1. _____

2. _____

3. _____

6) Complete ONE of the following options:

BEEF CATTLE OPTION

a) Visit a farm or ranch where beef cattle are produced under any of these systems:

1) feeding market cattle for slaughter;

2) producing feeder cattle for sale to commercial cattle feeders;

3) producing purebred cattle for sale as breeding stock to other breeders.

Talk with the operator. Tell how the cattle were handled, fed, weighed, and shipped. (*Hint: note space is provided below.*)

b) Sketch a plan of a feedlot, forage and grain storage facilities, and loading chute for 30 or more fattening steers, or a corral plan with cutting and loading chutes for handling 50 or more beef cows and their calves at one time. (*Hint: Attach or use a page back .*)

c) Submit a sketch showing the principal wholesale and retail cuts of beef. Tell about the U.S. Department of Agriculture (USDA) dual grading system of beef. Tell about the grades in each system. (*Hint: Attach or use a page back .*)

d) Define the following terms: bull, steer, bullock, cow, heifer, freemartin, heiferette, calf. (*Hint: note space is provided below.*)

-OR- DAIRYING OPTION

a) Tell how a cow or goat converts forage and grain into milk. (*Hint: note space is provided below.*)

b) Make a chart showing the ingredients in cows' milk or goat's milk. Chart the amount of each ingredient.

c) Explain the requirements for producing Grade A milk. Tell how milk is pasteurized. (*Hint: note space is provided below.*)

d) Tell about the kinds of equipment and sanitation standards for dairy farms. (*Hint: note space is provided below.*)

e) Define the following terms: bull, cow, steer, heifer, springer, buck, doe, kid. (*Hint: note space is provided below.*)

f) Visit a dairy farm or milk processing plant. Tell about your visit.

-OR- HORSE OPTION

a) Make a sketch of a useful saddle horse barn and exercise yard. (*Hint: Attach or use a page back .*)

b) Tell the history of the horse and the benefits it has brought to people. (*Hint: note space is provided below.*)

c) Tell about the following terms: mare, stallion, gelding, foal, colt, filly; mustang, quarter horse, draft horse, pacer, trotter; pinto, calico, palomino, overo, tobiano. (*Hint: note space is provided below.*)

d) Visit a horse farm. Describe your visit. (*Hint: note space is provided below.*)

e) Outline the proper feeding of a horse doing light work. Explain why the amount and kind of feed will change according to the kind of horse and the work it does. Describe the symptoms of colic. (*Hint: note space is provided below.*)

-OR- SHEEP OPTION

a) Make a sketch of a live lamb. Show the location of the various wholesale and retail cuts. (*Hint: Attach or use a page back .*)

b) Select two breeds that would be appropriate for the production of crossbred market lambs in your region. Identify which breed the rams should be. (*Hint: note space is provided below.*)

c) Choose three breeds and offer a crossbreeding plan that would use the best characteristics of each breed for maximum sheep production efficiency. (*Hint: note space is provided below.*)

d) Visit a farm or ranch where sheep are raised. Tell about your visit, including the feeding program used. If you cannot visit a sheep farm or ranch, view a video from a breed association, or research the Internet for information on sheep production. Tell about your findings. (*Hint: note space is provided below.*)

e) Describe some differences between the production of purebred and commercial lambs. (*Hint: note space is provided below.*)

f) Define the following terms: wether, ewe, ram, lamb. (*Hint: note space is provided below.*)

-OR- HOG OPTION

a) Visit a farm where hogs are produced, or visit a packing plant handling hogs. Describe your visit. If you cannot visit a hog production unit or packing plant, view a video from a packer or processor. Tell about the video. (*Hint: space is provided below.*)

b) Outline in writing the proper feeding from the breeding or gilt or sow through the weaning of the litter. Discuss the growth and finishing periods. (*Hint: note space is provided below.*)

