Tennessee 4-H Beef Project

Advanced

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UTEXTENSION
INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

HEALTH & WELFARE

Outcome: Demonstrate your ability to administer subcutaneous and intramuscular injections

EXPLORE: Step Out Activity

Research and find a lesson plan to help you develop and deliver a presentation for younger 4-H members in the Beef Project, on a judging team, or in another group. Write a short report about what you made and who you shared with.

Example:
https://www.canr.msu.edu/uploads/236/65684/4H1669_AnimalScienceAnywhere-LivestockInjections_NEW.pdf

I created the following to share:

I shared with the following groups:

EXPAND & APPLY

How does this relate to every day life? How can you use this knowledge in the future?

NUTRITION

Outcome: Complete a Pearson-Square ration formulation with two feedstuffs

EXPLORE: Step Out Activity

Using Pearson's Square and the information provided at the link below, balance a feed ration. Check your work using the answer key on the last page.
https://utia.tennessee.edu/ansc/wp-content/uploads/sites/7/2020/07/BeefFeedstuffsActivityPacket.pdf

1. Formulate 500 lbs of a 21% CP ration using Soybean Meal (44% CP) and Corn (9% CP). How many pounds of soybean meal will be used? How many pounds of corn will be used?

2. Formulate 600 lbs of a 13% CP ration using Alfalfa Hay (18% CP) and Clover (4% CP). How many pounds of alfalfa will be used? How many pounds of clover will be used?

EXPAND & APPLY

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REPRODUCTION

Outcome: List the components of the Breeding Soundness Exam

EXPLORE: Step Out Activity

The Breeding Soundness Exam (BSE) is an instrumental part in making decisions about reproduction in the beef herd. A bull who cannot pass a BSE can have huge repercussions on beef herd productivity. The YouTube video below shows the process of the Breeding Soundness Exam. Watch it, then list five (5) things that the BSE is checking for. Write a few sentences about why each is important.

YouTube Link: https://www.youtube.com/watch?v=094DAgVg6mo

1.

2.

3.

4.

5.

You can now present to a group of local beef producers or 4-H Beef project members on the importance of the BSE.

EXPAND & APPLY

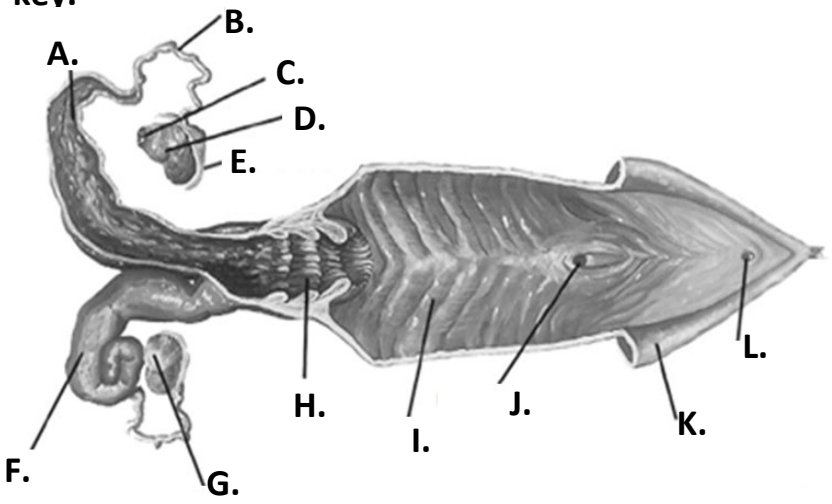
How does this relate to every day life? How can you use this knowledge in the future?

REPRODUCTION

Outcome: Distinguish between the different components of the reproductive tract

EXPLORE: Step Out Activity

Label the parts of the reproductive tracts of both male and female beef cattle by matching the letter to the corresponding word. Check your answers using the answer key.

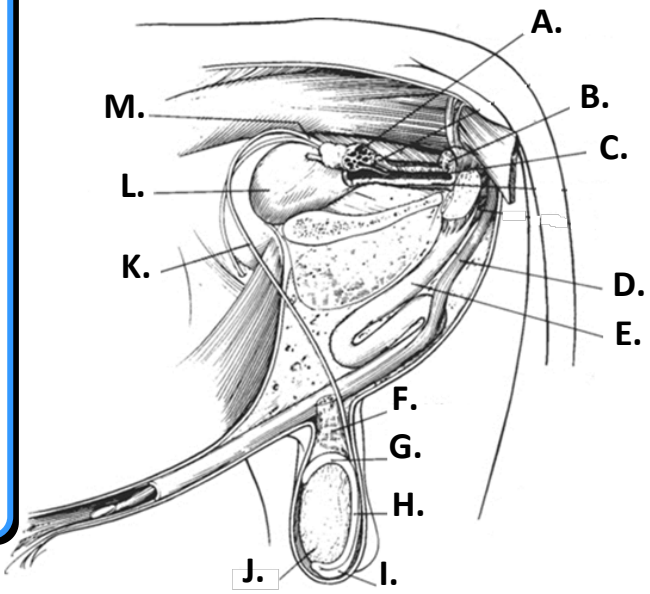


_____ Caruncles
_____ Cervix
_____ Clitoris
_____ Corpus Luteum
_____ Follicle
_____ Infundibulum
_____ Ovary
_____ Oviduct
_____ Urethral Orifice
_____ Uterus
_____ Vagina
_____ Vulva

COW

_____ Ampulla
_____ Bladder
_____ Body of Penis
_____ Bulbourethral Gland
_____ Deferent Duct
_____ Epididymis (Body)
_____ Epididymis (Head)
_____ Epididymis (Tail)
_____ Pampiniform Plexus
_____ Retractor Penis Muscle
_____ Testis
_____ Urethra
_____ Vesicular Gland

BULL

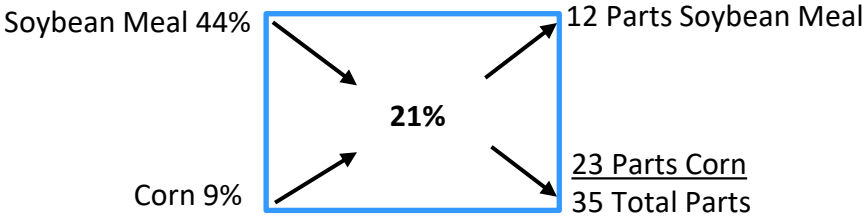


EXPAND & APPLY

How does this relate to every day life? How can you use this knowledge in the future?

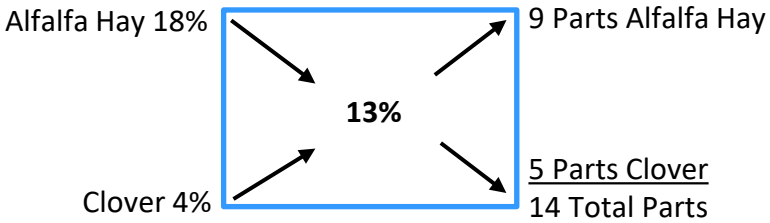
Answer Key – Outcome #2

Formulate 500 lbs. of a 21% CP ration using Soybean Meal (44% CP) and Corn (9% CP).



How many pounds of soybean meal will be used?
12 parts Soybean Meal / 35 total parts = .34 parts from soybean meal
.34 parts from soybean meal x 500 lbs. ration = 170 lbs. soybean meal needed
How many pounds of corn will be used?
23 parts corn / 35 total parts = .66 parts from corn
.66 parts from corn x 500 lbs. ration = 330 lbs. corn needed
Double check your answer:
170 lbs. soybean meal + 330 lbs. of corn – 500 lbs. ration

Formulate 600 lbs. of a 13% CP ration using Alfalfa Hay (18% CP) and Clover (4% CP).

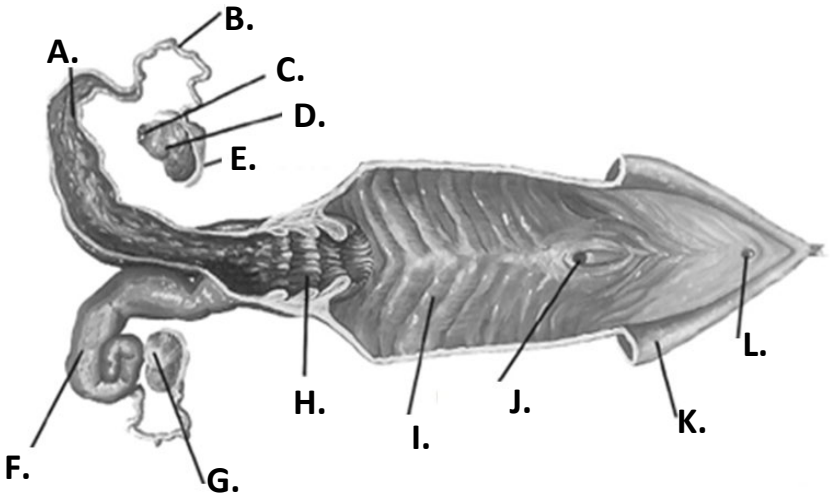


How many pounds of alfalfa will be used?
9 parts alfalfa hay / 14 total parts = .64 parts from alfalfa hay
.64 parts alfalfa hay x 600 lbs. ration = 384 lbs. alfalfa hay needed
How many pounds of clover will be used?
5 parts clover / 14 total parts = .36 parts from corn
.36 parts from clover x 600 lbs. ration = 216 lbs. clover needed
Double check your answer:
384 lbs. alfalfa hay + 216 lbs. of clover – 600 lbs. ration

References:

- https://www.youtube.com/watch?v=094DAgVg6mo https://utia.tennessee.edu/ansc/wp-content/uploads/sites/7/2020/07/BeefFeedstuffsActivityPacket.pdf
- https://www.canr.msu.edu/uploads/236/65684/4H1669_AnimalScienceAnywhere-LivestockInjections_NEW.pdf

Answer Key – Outcome #4



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H	Cervix	
L	Clitoris	
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D	Ovary	
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K	Vulva	COW

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I	Epididymis (Tail)	
F	Pampiniform Plexus	
D	Retractor Penis Muscle	
J	Testis	
C	Urethra	
A	Vesicular Gland