

MECOSTA COUNTY 4-H BEEF PROJECT AREA

NOTEBOOK GUIDELINES

BEEF EDUCATIONAL NOTEBOOK # 1

Items A, B, C, and D are required for notebook #1

- A. Decorative Cover
- B. Title Page
- C. Table of Contents and Notebook Guidelines
- D. Place the year that you complete each page in the lower right corner of each page.

Level One (1) Beef notebook options:

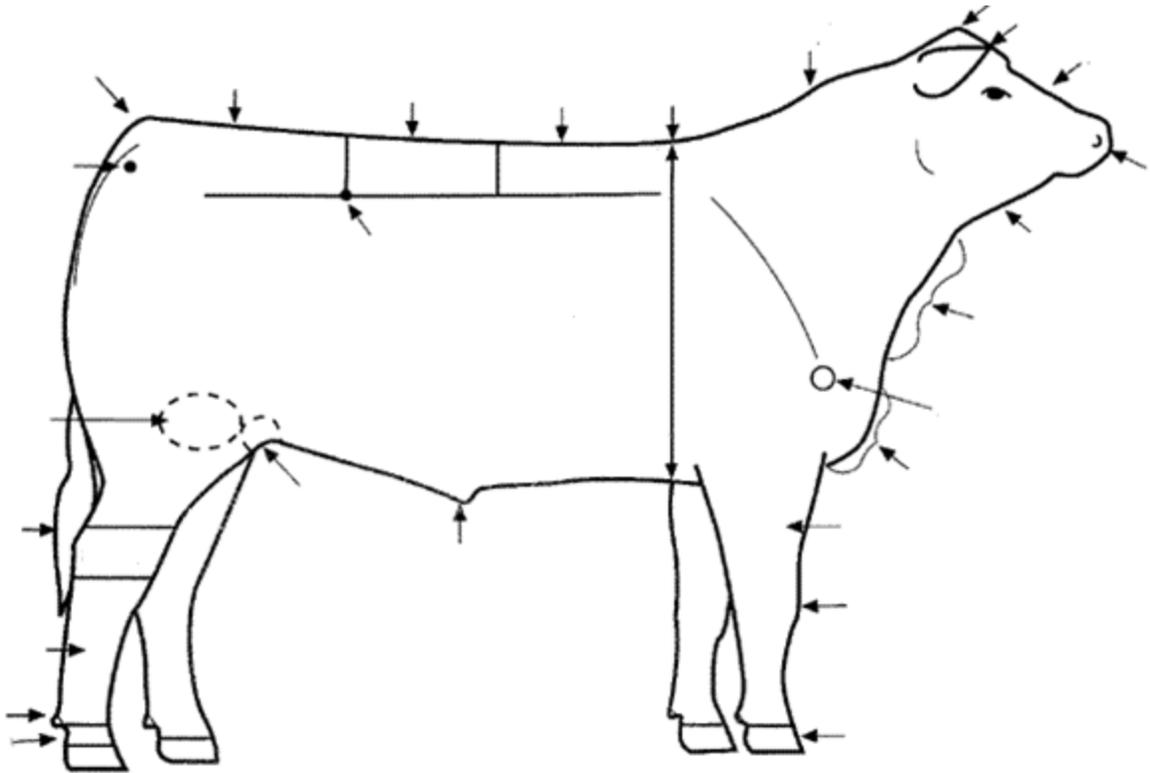
- Options #1 -First year complete 6 of the following items.
-Second year complete the remaining 6 items.

- Option #2 - First year complete all 12 items.

Year
Completed

- _____ 1. Describe and tell the important characteristics of (3) breeds of beef (may include dairy feeder breeds) Start with your own and (2) others. Include body type and breed standard.
- _____ 2. Identify and label the parts of the beef. Diagram on page 2.
- _____ 3. List the equipment/tack you will need to show a beef steer or dairy feeder.
- _____ 4. Explain the following terms; registered, purebred and crossbred.
- _____ 5. Define the term disqualification. Give examples of temporary and permanent disqualifications.
- _____ 6. What two tags are market beef/dairy feeders required to have in order to show and why?
- _____ 7. Describe the cause, symptoms, treatment and prevention of scours.
- _____ 8. Explain the proper procedure when handling beef/dairy feeders. (tack used, your behavior and body body placement, yours and projects)
- _____ 9. Describe and draw a diagram of your housing area and the equipment you use in the care of your beef/diary feeder. May use a photograph with your written explanation.
- _____ 10. Describe your feed program, including the nutritional value breakdown of protein, fat and crude fiber.
- _____ 11. Keep a record of your beef steer/dairy feeder and expenses incurred. Include in your notebook.
- _____ 12. Include pictures of your beef steer/dairy feeder and awards you may have accomplished.

Parts of Beef



Word Bank

hoof

pin

dew claw

stifle joint

rump

cannon bone

crest

dewlap

poll

tail head

brisket

back

sheath/navel

rear flank

point of shoulder

throat

muzzle

pastern

knee

switch

forearm

hook

loin

heart girth

face

ear

MECOSTA COUNTY 4-H PROJECT AREA

NOTEBOOK GUIDELINES

BEEF EDUCATIONAL NOTEBOOK #2

Items A, B, C, D, and E are required for notebooks 2- 4

- A. Decorative Cover
- B. Title Page
- C. Table of Contents and Notebook Guidelines
- D. Your 4-H Story (Tell about your beef project- where you obtained, your goals etc.)
- E. Place the year you complete each page in the lower right corner of each page

Level Two (2) Beef notebook options:

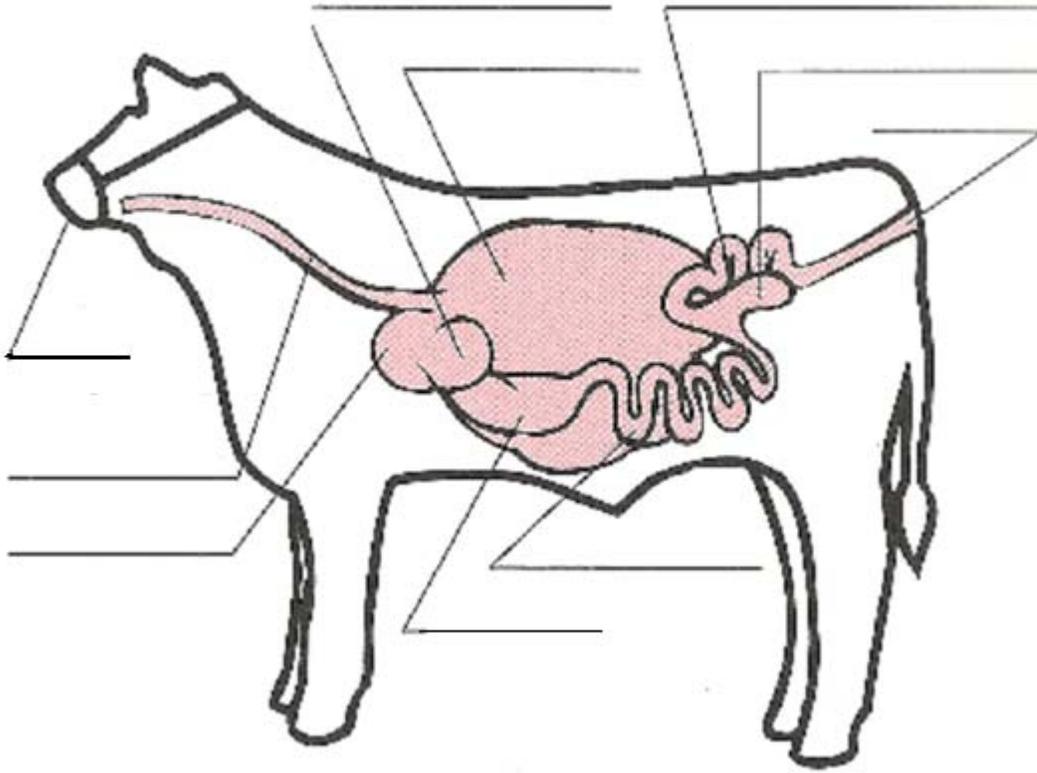
- Option #1 -Third year complete 6 of the following items
-Fourth year complete the remaining 6 items

- Option #2 -Third year complete all 12 items
-

Year
Completed

- _____ 1. Describe and tell the important characteristics of (3) breeds of beef. (May include dairy project breeds) Include body type and breed standard. Total of (6) in notebook.
- _____ 2. Identify and label parts of the digestive system. Diagram on page 2.
- _____ 3. Describe the symptoms, cause and treatment of pneumonia, ringworm and scours.
- _____ 4. Describe the daily feed requirements of grain, hay and water (in pounds) for both beef steers and feeder steers. Include what a typical grower and finishing ration of grain consists of. (% of ingredients)
- _____ 5. List the proper ranges for beef/dairy feeder vital signs. (temperature, heart rate and respiration rate)
- _____ 6. What is NCBA? How can they help you as a 4-H beef raiser?
- _____ 7. Explain the difference between a bull and a steer and why you would keep a bull intact or castrate.
- _____ 8. Identify three parasites that affect beef/dairy feeders.
- _____ 9. Describe a trip you took to a beef show, beef farm or any other beef event.
- _____ 10. List what vaccines should be administered to beef/diary feeder.
- _____ 11. Continue your beef/dairy feeder records for breeding, feeding, and expenses. Include in notebook.
- _____ 12. Include pictures of you and your animal and any ribbons/awards you may have won at fairs/shows.

Digestive System



Word Bank

Anus
Cecum
Rumen
Omasum

Abomasum
Reticulum
Large Intestine

Small Intestine
Esophagus
Mouth

MECOSTA COUNTY 4-H BEEF PROJECT AREA

NOTEBOOK GUIDELINES

BEEF EDUCATIONAL NOTEBOOK # 3

Items A, B, C, D and E are required for notebooks 2- 4

- A. Decorative Cover
- B. Title Page
- C. Table of Contents and Notebook Guidelines
- D. Your 4-H story (Tell about your beef project- where you obtained, your goals etc.)
- E. Place the year that you complete each page in the lower right corner of each page.

Level Three (3) Beef notebook options:

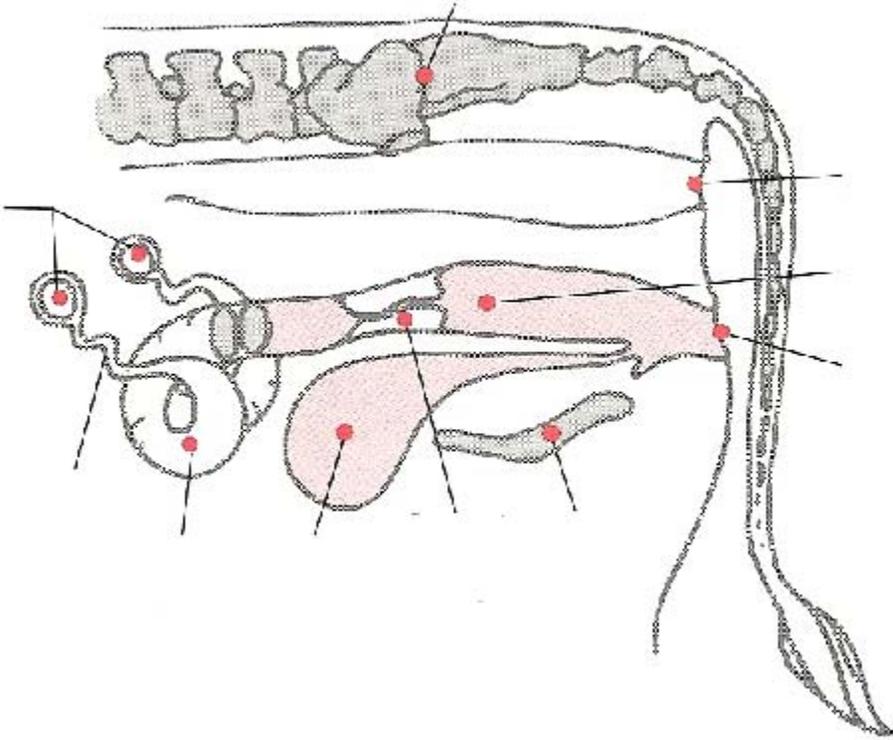
- Options #1 -Fifth year complete 6 of the following items.
-Sixth year complete the remaining 6 items.

- Option #2 - Fifth year complete all 12 items.

Year
Completed

- _____ 1. Describe and tell the important characteristics of (2) breeds that are raised not only for beef but other purposes. Total of (8) breeds in notebook.
- _____ 2. Identify and label the parts of the reproductive system. Diagrams on page 2.
- _____ 3. Define the following terms; ovary, cervix, uterus, oviduct, scrotum, testicles, epididymis and sheath.
- _____ 4. List (4) calving supplies you should have available and why you would use them.
- _____ 5. List (3) possible calf loss reasons and how to avoid them.
- _____ 6. Describe (2) techniques for castrating and dehorning a calf and the benefits of each.
- _____ 7. Describe the desirable characteristics of the beef/dairy feeders loin, shoulders and legs.
- _____ 8. Explain the difference between beef and veal and include (2) recipes containing either one.
- _____ 9. List (6) beef by-products and their uses.
- _____ 10. List what techniques are used to deworm your calf/steer.
- _____ 11. Continue your beef/dairy feeder records for breeding, feeding, and expenses. Include in notebook
- _____ 12. Include pictures of you and your animal and any ribbons/awards you may have won at fairs/shows.

Reproductive Systems

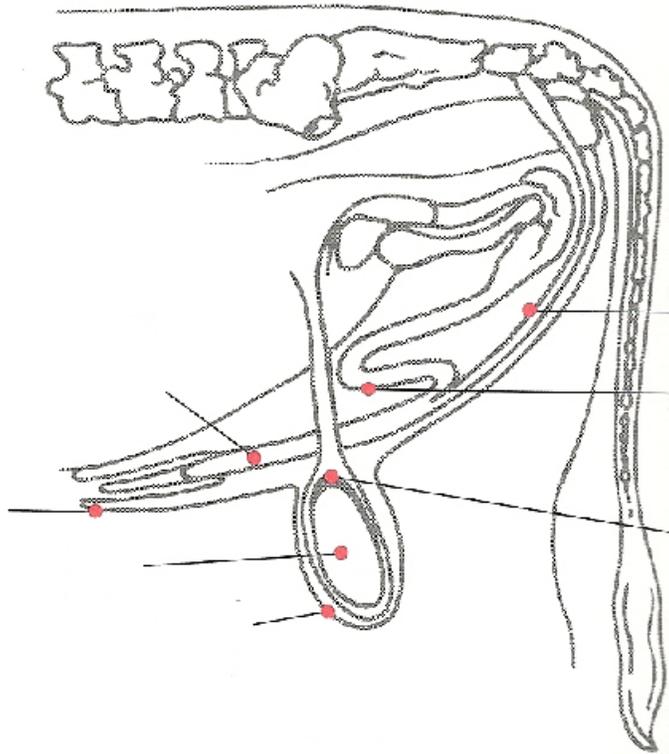


Cow Reproductive Parts

- | | |
|-------------------|------------|
| 1. Oviduct | 7. Rectum |
| 2. Ovary (2) | 8. Bladder |
| 3. Uterus | 9. Cervix |
| 4. Vagina | 10. Vulva |
| 5. Pelvic Bone | |
| 6. Broad Ligament | |

Bull Reproductive Parts

1. Testicle
2. Epididymis
3. Sheath
4. Scrotum
5. Penis
6. Sigmoid Flexure
7. Retractor Penis Muscle



MECOSTA COUNTY 4-H BEEF PROJECT AREA

NOTEBOOK GUIDELINES

BEEF EDUCATIONAL NOTEBOOK # 4

Items A, B, C, D and E are required for notebooks 2- 4

- A. Decorative Cover
- B. Title Page
- C. Table of Contents and Notebook Guidelines
- D. Your 4-H story (Tell about your beef project- where you obtained, your goals etc.)
- E. Place the year that you complete each page in the lower right corner of each page.

Level Four (4) Beef notebook options:

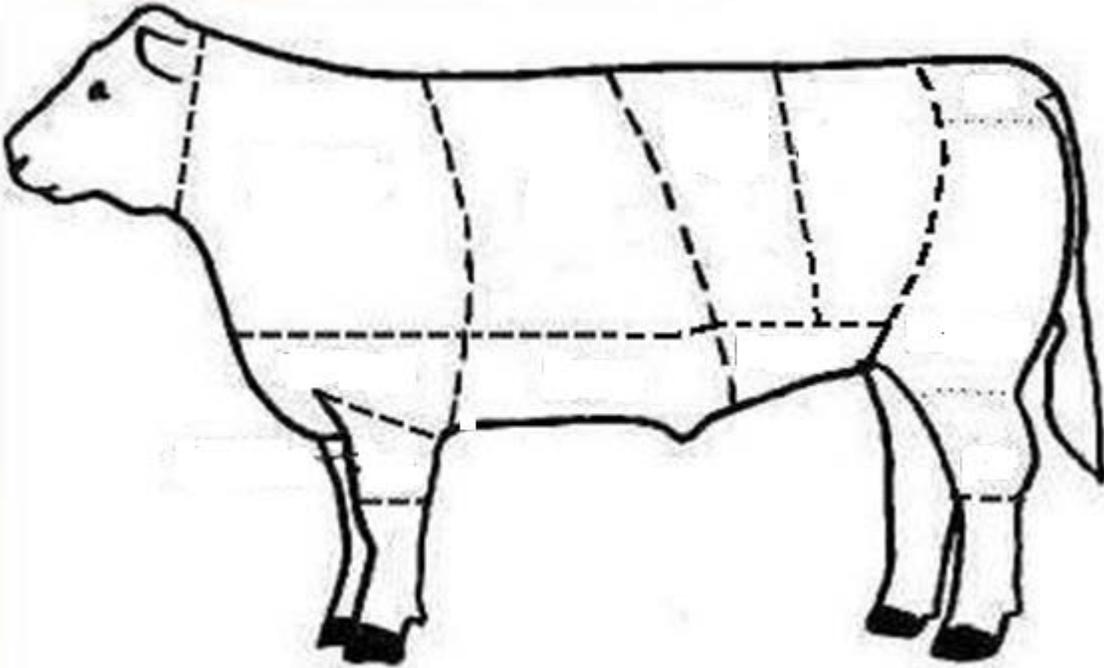
- Options #1 -Seventh year complete 6 of the following items.
-Eighth year complete the remaining 6 items.

- Option #2 - Seventh year complete all 12 items.

Year
Completed

- _____ 1. Describe and tell the important characteristics of (2) **rare** breeds of beef. Total of (10) in notebook. Include body type, breed standard, uses and their country of origin.
- _____ 2. Describe how to clip a steer for show.
- _____ 3. Describe how nutrients are absorbed in the digestive system. Begin at the mouth.
- _____ 4. How do microbes (bugs) in the rumen help to digest food?
- _____ 5. Describe (3) marketing techniques and the current market price for beef/dairy feeders. (both steers and calves)
- _____ 6. Explain the difference between wholesale cuts and retail cuts.
- _____ 7. Label the diagram of wholesale cuts of meat. Diagram on page 2.
- _____ 8. Identify (5) beef cuts and locate what part of the carcass each cut is found and name one of the skeletal bones found in each cut. Page 3 of notebook.
- _____ 9. What does the term “cutability ” refer to when evaluating a beef carcass?
- _____ 10. Describe the pros and cons of breeding or purchasing a market steer project.
- _____ 11. Continue your beef/dairy feeder records for breeding, feeding, and expenses. Include in notebook.
- _____ 12. Include pictures of you and your animal and any ribbons/awards you may have won at fairs/shows.

Wholesale Cuts of Meat



Word Bank for wholesale cuts

Chuck
Rib
Flank
Fore Shank

Hind Shank
Sirloin
Round
Rump

Short Loin
Brisket
Plate

Identifying Beef Retail Cuts

Retail Cut	Wholesale Cut	Skeletal Bone
Example: Leg Roast	Leg	Femur (leg bone)
1.		
2.		
3.		
4.		
5.		

MECOSTA COUNTY 4-H BEEF PROJECT AREA

NOTEBOOK GUIDELINES

BEEF EDUCATIONAL NOTEBOOK ADVANCED

Items A, B, C and D are required for the Advanced notebook.

- A. Decorative Cover
- B. Title Page
- C. Table of Contents and Notebook Guidelines
- D. Place the year that you complete each page in the lower right corner.

Level Advanced Beef notebook options:

Options #1 -Ninth year complete 6 of the following items.
-Tenth year complete the remaining 6 items.

Option #2 - Ninth year complete all 12 items.

Year
Completed

- _____ 1. Describe and tell the important characteristics of (4) breeds of beef. Total of (14) in notebook. Include body type, breed standard, uses and their country of origin.
- _____ 2. Give (5) examples each of ethical and non ethical situations relating to raising and/or showing beef. (examples; helping younger members, painting your steers underside before a show)
- _____ 3. Research and define the terms Animal Welfare and Animal Rights.
- _____ 4. Choose a topic relating to the beef industry and present arguments from both the animal welfare view and the animal rights view. (Ex: Increasing wolf population and how it affects beef farmers)
- _____ 5. Page 2 contains photos of a market steer class. Judge and present reasons on your placings. Use comparative terms. An example reason note card and examples of terms are provided on page 3.
- _____ 6. Define Quality Assurance. List (4) practices that help to ensure Quality Assurance.
- _____ 7. Explain why treatment records are important and list (3) medications given to beef/dairy feeders, how they are administered, withdrawal time and why withdrawal time is important.
- _____ 8. Create a game complete with rules to help a younger member to learn more about a beef project.
- _____ 9. Describe a trip you took to a beef show, beef farm or any other beef event and why you would recommend to a younger member to do so.
- _____ 10. Continue your beef/dairy feeder records for breeding, feeding, and expenses. Include in notebook.
- _____ 11. Include pictures of you and your steer/calf and any ribbons/awards you may have won at fairs/shows.
- _____ 12. Write a brief summarization of your 4-H experience and how it has impacted your life.

Example Reason Note Card

I placed this class of steers; 2, 4, 1, 3.

In the top pair I placed 2 over 4. I started with 2 because _____. 2 was more _____. I grant 4 was _____, yet I recognized and faulted 4 for _____.

In the middle pair I placed 1 over 3. 1 was _____ more so than 3. I grant he was _____ but I criticized 3 because he was _____ and Therefore was placed last.

Remember you want to compare the animals more so than describing them. You will want to bring out more important and general points first. State major differences. Keep your responses short and to the point.

Examples of Comparative Terms

Desirable

Skeletal Size, Structure and Soundness;

More correct set to feet
Stronger topped
Larger frame, correct in length and height of body
Squarer, stronger leg structure
Leveler, stronger top

Muscle;

Longer muscled
Wider and fuller in stifle
Heavier muscled loin
Thicker more muscular round

Finish (fatness);

More correctly finished
Trimmer in brisket, rear flank
More uniform

Undesirable

Knock-kneed, Cow hocked
Weaker topped
Smaller framed
Less body mass

Over finished
Wasty in brisket, rear flank
Less uniformity of finish

Over finished
Wasty in brisket, rear frame
Less uniformity of finish, patchy

Use terms to lead intro;
I grant
On the other hand
I admit