Enclosed is your bottle calf information. Please do not lose this information as you will need this for your fair entries.

The ID form needs to be completed by May 15 in the 4-H Online system. The three record sheets at the end of this booklet are due with your fair entry on or before May 31 along with stall fees.

These forms are being provided to you early, so please keep them where you can find them later in the year. If you have any questions, please call the Extension Office. We hope you have fun with this project.
BOTTLE CALF
PROJECT

Bottle Calf Class
Rules:

1) Class is open to any newborn or orphan calf, steer or heifer; dairy, beef, or crossbred. NO bulls. Calf must be bucket or bottle fed, NO nursing.

2) Calf must be born between February 1 and April 30 of the current year and owned, fed, and cared for by the exhibitor within two weeks of birth and properly identified by May 15 in 4-H online. Two calves may be identified, but only 1 calf may be exhibited.

3) Classes will be divided based on ages of youth.

4) Judging will be Wednesday, June 19 at 9:00 a.m. Calves will be shown at halter.

5) Judging will be based on:
   a) What the member has learned about care and raising of the calf. An interview session with the judge will be held during the judging.
   b) The grooming and cleanliness of the calf.
   c) General health, management, and condition of the calf and exhibitor’s knowledge of this area.
   d) Confirmation or quality of the calf is NOT to be considered.
   c) Completed record forms (B-1 and B-2) must be turned in by May 31, 2019

6) Animals will be grouped in blue, red, and white ribbon groups by the judge.

Division A -- Bottle Calf -- If there are enough entries, these classes may be split into age groups.

   Class 1 -- Junior - Grades 4-6
   Class 2 -- Intermediate -- Grades 7-8
   Class 3 -- Senior -- Grades 9-12
# Your Bottle Calf Project

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**PREPARED BY:**

Paul Brown, Ag Farm Management Specialist - Chickasaw County

Linda Engelken-Fisher, Benton County Extension Education Director

Scott Ermer, Youth & 4-H - Linn County
INTRODUCTION

The Bottle Calf project is offered to all 4-H and FFA members. Anyone interested in this project must be enrolled in the Bottle Calf project. Contact the Extension Office for enrollment details.

PURPOSE

In the Bottle Calf project you can learn:

* Proper health care and nutritional requirements of young cattle.

* Basic beef and dairy management skills without a large investment.

* Basic record keeping skills.

* Gain a better understanding of the feeder cattle and replacement animal industry.

PROJECT GUIDELINES

* Any 4-H & FFA member may exhibit in this class.

* Member must be enrolled in the Bottle Calf project by May 1.

* Calf must be born between February 1 and April 30 and purchased within 2 weeks of birth. Must be in possession of exhibitor by May 1.

* Open to any newborn or orphan calf, steer or heifer; dairy, beef, or crossbred.

* Calf must be bucket or bottle fed, NO nursing.

* Calves must be identified in 4-H online by May 15.

* Up to 2 animals may be identified, but a limit of one calf exhibited.

* Refer to your fairbook for specific class details.

COUNTY FAIR GUIDELINES

* Calves should not be clipped or fitted.

* See fairbook General Livestock Rules for suggested showing attire.

* Calves will be shown at halter. The classes will be divided according to age of the exhibitor.

* Judging will be based on:

  a) What the member has learned about care and raising of the calf. An interview session with the judge will be held during the judging.

  b) The grooming and cleanliness of the calf. Recommended to use soap, water, brush, and rag.

  c) General health, management and condition of the calf and the 4-H and FFA member’s knowledge of this area.

  d) Confirmation or quality of the calf is NOT to be considered.

  e) Completed record forms B-1 and B-2 must be turned in to the Extension Office by May 31 with your entry form and stall fee.

END OF PROJECT REPORT

By May 31 you will be required to submit a report on your project. This report needs to contain forms B-1 and B-2. Add any other material that you would like to this record. Please include a picture of yourself with the calf with this report. Complete forms B-1 and B-2, as the year progresses, don’t wait until the end. Above all, have fun with this project, it is a great learning experience.
MANAGEMENT OUTLINE

COLOSTRUM

* When first born, calves lack antibodies and certain nutrients.

* Newborn calves acquire both immunity against many diseases plus certain vitamins from cows first milk, which is called **colostrum**.

* Try to give the calf some colostrum within 15 to 30 minutes after birth and a full feeding within 12 hours of birth. Follow these consumption guidelines:

  120 lb. calf needs 6 lbs. within 12 hours  
  100 lb. calf needs 5 lbs. within 12 hours  
  60 lb. calf needs 3 lbs. within 12 hours

* The calf is usually removed from the cow 18-24 hours after birth and is bottle fed colostrum for 3-4 days.

* Before purchasing a calf, ask the seller if the calf did receive colostrum for the first 3-4 days after birth.

* Veterinarians can perform a blood test called Zinc Sulfate Turbidity - to determine whether or not the calf did indeed receive colostrum.

* Start milk replacer on the fourth day after birth.

* Calves should be fed twice daily at 8% body weight.

* Follow directions on milk replacer bag.

* Calves should be on milk for at least 4-5 weeks.

* Feed fresh milk at each feeding.

  a) Milk should be fed at 100°F.

Calf Starter

* Begin feeding a calf starter at about 7-10 days of age plus a handful of high quality hay.

* Change feed and hay often to prevent it from becoming stale.

* Try to encourage the calf to eat some starter after it is finished with it’s milk.

* Allow calves to have access to a little fresh water during the day when they begin consuming feed.

* Calves can be weaned at 4-5 weeks when they are consuming 1.5-2 lbs. of starter per day. Do not wean until they have reached this level of consumption.

* Feed starter up to four months of age, plus free choice hay.

* A calf’s rumen does not develop fully until 5-6 months of age.

Milk Replacer

* Purchase a high quality milk replacer.

  a) The milk replacer MUST contain a milk based protein and NOT a soybean based protein.

  b) Calves will starve to death on soybean based protein because they cannot easily digest it.
MANAGEMENT OUTLINE

HOUSING

* Ventilation and isolation are very important.
  
a) Calves do the best in their own hutch or pen.
  
b) Calves must not be housed near or with other livestock.
  
c) Penning two or more calves together is not a good idea because of possible sucking problems.

* Utilize an individual calf hutch out in the open or in a machine shed. Refer to the section in the booklet titled Pen or Hutch Blueprint.

* Clean, fresh air is important in preventing health problems.

* Bed individual pens deeply with clean straw.

HEALTH

* Have a veterinarian check the calf shortly after arrival.

* Ask your veterinarian about the following:

  a) A Vitamin A, D, and E injection.

  b) A Ralgro or Synovex implant for calves not intended for breeding purposes.

  c) IBR (Infectious Bovine Rhinotracheitis), BVD (Bovine Virus Diarrhea), Clostridial Diseases (Black Leg & Enterotoxemia).

  d) Conditioning of the calf.

  e) Fly tags in June.

  f) Lice control.

* Worming is not necessary until after the calves have been on pasture.

* Check the calf before each feeding for any health problems.
BEEF & DAIRY TERMS

TALK LIKE A BEEF & DAIRY PRODUCER

To talk like a knowledgeable cattle producer, you may want to learn some of the commonly used words. Studying the following terms will help you. Some of them may sound simple, but you'll be surprised how many 4-H'ers don't know the real definitions!

**Antibiotics** -- Medicines given to animals for health purposes to treat problems caused by certain microorganisms.

**Antibodies** -- The immunoglobulins and other blood serum proteins that are found in colostrum.

**Bull** -- Uncastrated male cattle of any age.

**Calves** -- Young cattle of either sex less than one year of age.

**Calving (Freshening, Parturition)** -- The act of giving birth.

**Calving Difficulty (Dystocia)** -- Abnormal or difficult labor causing difficulty in delivering the fetus and placenta.

**Carcass Merit** -- Desirability of a carcass relative to quantity of edible portion and quality of product.

**Colostrum** -- The first milk; high in antibodies; produced by a female mammal after it gives birth.

**Conception** -- The fertilization of the ovum or egg. The act of conceiving or becoming pregnant.

**Cow** -- A female that has had one or more calves.

**Crossbred** -- An animal with pure-bred parents of different breeds, or grade parents.

**Cull** -- To eliminate an animal of low quality from a herd.

**Cutability** -- Carcass cutout value, or yield of saleable meat; sometimes designated as yield grade by USDA meat graders.

**Dam** -- The mother of a calf.

**Dropped** -- Born; given birth to.

**Dry Period** -- When the cow is no longer being milked, by machine or by a calf, prior to freshening.

**Estrus** -- The recurring period of sexual excitement in mature cows; when the cow will accept the bull; heat period.

**Fetus** -- The unborn young of cattle after the body parts are formed.

**Finish** -- The degree of fatness.

**Founder** -- A nutritional ailment from overeating; foudered animals become lame with sore front feet and excessive hoof growth.

**Freemartin** -- The female member of unlike twins in cattle, showing many male characteristics and incapable of reproduction.

**Half-Sibs** -- Individual cattle having the same sire or dam. Half-brothers and half-sisters.

**Heifer** -- A female that has not had a calf.

**Inbreeding** -- Occurs when sire and dam are close relatives.

**Linebreeding** -- Selective breeding, sire and dam with similar heredity, but not as closely related as inbreeding.

**Marbling** -- The percentage of fat distributed throughout the meat.

**Open** -- Refers to the non-pregnant female.

**Ovulation** -- Release of the female germ cell (egg) by the ovary. Cows usually ovulate several hours (up to 15 hours) after the end of estrus or standing heat.

**Performance Test** -- A measure of individual performance; specifically, the rate and efficiency of growth of a steer, and carcass traits.

**Polled** -- Cattle that are born without horns.

**Registered** -- An animal whose name, along with the name and number of it’s sire (father) and dam (mother), has been recorded in the record of it’s breed association. The association gives the animal a number, known as the registration number. The association also issues a registration certificate showing that the animal has been registered.

**Scurs** -- Horny tissue or rudimentary horns that are attached to the skin rather than the bony parts of the head.

**Sire** -- The bull that fathers a calf.

**Springer** -- Heifer or cow showing signs of advanced pregnancy; near to calving.

**Stag** -- Male bovine castrated after sex characteristics are developed.

**Steers** -- Male cattle that were castrated at an early age before sex characteristics developed.
HOWARD COUNTY BOTTLE CALF PROJECT  
(Complete and return to the Extension Office by May 31)

MEMBERS NAME ____________________________________________

CLUB __________________________ AGE ________ GRADE ________

CALF'S DATE OF BIRTH __________ COLOR OF CALF ______________________

DATE PURCHASED ____________ OR DATE SELECTED ____________

PURCHASE PRICE $________ OR ESTIMATED VALUE WHEN BORN ON FARM $ ________

BREED OF SIRE ___________ BREED OF DAM ________________

********************************************************************************

Describe facilities where you housed your calf:

Describe the feeding program you followed the first 3-4 days that you got your calf: (type of feeds, amount per day, etc.)

Describe the feeding program for the next 3-4 weeks: (kinds, amounts per day, etc.)

Describe the feeding and management after you had the calf for a month:

B-1
Did your calf have any health problems? (Describe problem and what you did to treat it.)

What did you do to prevent health problems?

What other management practices have you followed to help your calf to be healthy and to grow?

What have you enjoyed and learned through this project?

What was the biggest problem you had and what did you do to solve it?

Attach a photo of you and your calf to this form.
COST OF RAISING A BUCKET/BOTTLE CALF
(Complete and return to the Extension Office by May 31)

<table>
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<th>Pounds</th>
<th>Cost per Pound</th>
<th>Total</th>
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<tbody>
<tr>
<td>Milk Replacement</td>
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<tr>
<td>Starter</td>
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<td></td>
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<tr>
<td>Hay</td>
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<td></td>
<td></td>
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<tr>
<td>Other</td>
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<table>
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<th>Bedding</th>
<th>Pounds</th>
<th>Cost per Pound</th>
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<tr>
<td>Bedding</td>
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Medication (Explain)

Veterinary Charges (Explain)

Other Supplies (Explain)

Total Cost

Purchase Cost of Calves (Value of calf at beginning of project)

Total Invested
In summer, gravel in the fenced area improves drainage and helps control flies.

Use plenty of bedding to provide a dry surface to lie on.

The portable calf hutch is moved to a clean location for each new calf.
BLUE PRINTS

PEN DOOR

Hay Rack

Access Port to service nipple and grain pail

2" x 4" P Threshold

2" x 6" PT Curb