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4-H

BUCKET CALF PROJECT



**PURDUE EXTENSION HAMILTON COUNTY
2003 PLEASANT STREET
NOBLESVILLE, IN 46060-3697
www.extension.purdue.edu/hamilton**



4-H Bucket Calf Project



Purposes:

- To design a cattle project to fit the physical size and maturity level of younger 4-H members.
- To teach proper health care, environment needs and nutritional requirements of young cattle.
- To teach basic beef and dairy management skills without a large investment.
- To teach basic record-keeping and communication skills.
- To provide a better understanding of the feeder cattle industry.

Guidelines

- ◆ **Bucket Calf**-an orphan or newborn calf; male or female; dairy, beef, or cross; fed on bucket or bottle.
- ◆ **Begin Project**-select and/or purchase a calf born between January 1 and April 15 of current project year within two weeks of birth. If shown, it is recommended that calf should be at least 90 days old. Animals must be identified by May 15 through the Extension Office.
 - ◇ Calf Sources-feedlots, dairies, sale barn, neighbor calving cull cows, county producers or contact the Extension Office.
- ◆ **End Project**-project ends when calf is sold at weaning age, as a feeder calf, dies or end of 4-H Fair. If calf is continued as a breeding heifer or market steer project, begin record for next year with ending value.
- ◆ **Identification**-Member may identify more than one animal, but will be limited to one calf for exhibit at fair. Calves must be identified with 4-H ear tag on 4-H Beef or Dairy enrollment form by May 15 of current 4-H year.
- ◆ **Record**-Complete 4-H Bucket Calf Record Sheet.
- ◆ **Fair Classes**-Calves are shown at halter in a special beef or dairy class. Classes may be split (if numbers warrant) according to:
 - ◇ 4-H'ers (Grades 3-5) with experience showing Beef or Dairy Bucket Calf (Clover)
 - ◇ 4-H'ers (Grades 3-5) with no experience showing Beef or Dairy Bucket Calf (Clover)
 - ◇ 4-H'ers (Grades 6-7) with experience showing Beef or Dairy Bucket Calf (Junior)
 - ◇ 4-H'ers (Grades 6-7) with no experience showing Beef or Dairy Bucket Calf (Junior)

- ◆ **Classes will be judged by conference method based on:**
 - ◇ **What 4-H'er learned about caring for and raising calf.**
 - ◇ **Show ring presentation according to either beef or dairy guidelines, with emphasis on how much the 4-H'er learned and can do without help. However, parental guidance is encouraged.**
 - ◇ **The general health of calf and knowledge of 4-H'er in health-related areas.**
 - ◇ **Dairy or beef quality of calf will not be considered, since purchase is not made on that basis.**
 - ◇ **Completion of record sheet, to best of member's ability.**

- ◆ **Awards-Every entry will receive a participation ribbon. If classes are ranked, it is important for spectators to know that placings are being made based on the interview and not on the quality of the animal.**

- ◆ **Sale of Animal-Members may keep animal for breeding heifer or market steer project or sell at sale barn or by private treaty.**

Healthcare

Careful observation of calves twice daily is very important. Look at the ears, nose and tongue. The ears should be up and alert, the nose should be shiny wet and bright colored; and the tongue a bright pink or black, not a dull grey color.

A common ailment of calves is scours. Scours are liquid feces as opposed to loose feces. An indicator is a wet tail and a hollow tucked up abdomen. If the calf is bright and alert, continue feeding milk and add a feeding of electrolyte. If the calf is weak and depressed give only electrolyte at 10% of body weight the first day. The following day give the calf 5% of body weight in milk in addition to the electrolyte, and then gradually increase milk over the next 2-3 days back to normal. Scours can be caused by both bacteria and viruses so talk to your vet about the use of antibiotics.

Pneumonia can also be a problem, but is generally caused by poor environment or nutrition. If housing and feeding are done properly pneumonia is unlikely. Remember, healthy animals are less likely to get sick.

A condition known as acidosis can occur if too much grain and too little of roughage is fed to the calf. Remember to make all changes in diet slowly.

When injections are required, remember to give them in the neck area and give them subcutaneously if the directions indicate that as a route. Injections cause lesions that ruin the value of the meat and the neck is the lowest value area that will work well. Vaccines should be given at 3-4 weeks, repeated at 6-8 weeks with a final injection at 6 months of age. The first combination product should be a 7-way Clostridial and the second combination an injection of IBR (Infectious Bovine Rhinotracheitis), P13 (Parainfluenza), BVD (Bovine Virus Diarrhea) and BRSV (Bovine Respiratory Syncytial Virus).

It is advisable to dehorn calf while horn buds are small, between two to eight weeks of age. Dehorn at the same time you vaccinate.

If you have a bull calf you must castrate or remove the testes. This is necessary to insure a quality meat product. Castration should take place between two and ten weeks of age. There are several different methods with advantages and disadvantages to each. You should castrate at the same time you dehorn.

- ◇ A good economical standard is 20/20 replacer, 20% protein/20% fat, made from all milk products. Using a 28/15 replacer will give good results and reduce the risk of scours. It produces a high growth rate and leaves the calf hungry so he will start on grain and hay earlier. If the calf is already on a milk replacer an effort should be made to purchase the same kind as the dairy uses. The milk replacer can then gradually be changed over to the product you desire.

Housing

Calf housing should be clean, dry and out of the wind but with good ventilation. A well maintained straw bed will reduce stress and lower maintenance requirements. If you are unwilling to lie down in the calf's bed, then you can expect that the calf is also hesitant.

Nutrition

- ◆ **Colostrum**-The need for and benefit of colostrum cannot be over-emphasized! A source of colostrum should be obtained from a dairy and frozen for use if calf is obtained within 24 hours of birth. If colostrum is available, it can supply the entire liquid feeding program. Since the antibodies in colostrum are capable of being absorbed from the intestinal tract only during the first day after birth, it is essential that the calf be given colostrums during the first 24 hours of life (first 12 hours preferred).

- ◆ **Milk Feeding**

- ◇ Use nipple feeder pail or bottle to keep calf from gulping milk. Nipples, valves and buckets must be washed and sanitized regularly to prevent bacterial infections. Each calf should be fed from a separate nipple bottle or bucket to avoid spreading diseases from one calf to another. Milk replacers can be purchased at feed stores. Milk replacers should be high in milk by-products and low in plant products. They should be at least 20% protein, not less than 12% fat or less than 1% fiber. A good economical standard is 20/20 replacer, 20% protein/20% fat, made from all milk products. Using a 28/15 replacer will give good results and reduce the risk of scours. It produces a high growth rate and leaves the calf hungry so he will start on grain and hay earlier. If the calf is already on a milk replacer an effort should be made to purchase the same kind as the dairy uses. The milk replacer can then gradually be changed over to the product you desire.

- ◇ Mix, measure or weigh milk according to the instructions on the bag. Milk replacer mixes best if the milk powder is added to hot water. However it needs to cool to body temperature before feeding. Do not overfeed or underfeed calf. Usually this will be 10% of the calf's body weight in milk, morning and night.



- ◆ **Calf Starter**-Offer the calf an 18% protein “calf starter” feed almost immediately. Start with a small amount and increase with the calf’s appetite. The calf will consume more if it is fed fresh every day. The old feed can be given to other livestock. Calves can be weaned from milk replacer when they are consuming 2 to 2 ½ pounds of calf starter daily; usually between four and six weeks of age. Starter grain is typically cheaper than milk replacer, so efforts to start the calf on grain will be worthwhile. Methods include dropping a handful of starter in the milk bucket or by hand feeding as soon as the milk is gone and the calf is trying to lick you. Feed up to five pounds of starter feed and all the hay the calf wants until about three months of age. At this time switch to a grower feed at five pounds per day and free choice high quality hay and/or quality pasture until fair.
- ◆ Calves do not like finely ground and dusty feeds. Ingredients that must be ground should be coarsely ground, cracked, rolled or flaked.
- ◆ Clean, fresh water should be available at all times.

Calf Starter Diet	
Corn, Cracked	52 pounds
Oats, Rolled	20 pounds
Soybean Meal	19.5 pounds
Molasses	7.1 pounds
Limestone, Ground	1 pound
Trace Mineral Salt	.25 pound
Vitamin Supplement	
(Should supply 1000 I.U.	Vitamin A, 140 I.U. vitamin E per pound of starter)

Calf Grower Diet	
Corn, Cracked	76 pounds
Soybean Meal	17 pounds
Molasses, Liquid	5 pounds
Limestone, Ground	1.2 pounds
Trace Mineral Salt	.3 pound
Dicalcium Phosphate	.3 pound
Salt	.2 pound
Vitamins A, D, and E	
Vitamin A	1000 IU/ lb
Vitamin D	140 IU/lb
Vitamin E	20 IU/lb
Additives (Lasalocid and/or	Another coccidiostat may be added)

Training Your Calf to Lead

- ◆ To train your calf to lead, start in a small area that the calf is used to. Be patient, calm, and ensure you and your calf are safe. Let the calf feel the halter and see the lead rope. It is very beneficial to let the calf drag the lead rope around for a couple of days. Teach the calf to lead in a small area where he can't get away, but where you have enough room to walk patterns. A chain halter that puts pressure on the lower jaw is helpful. Pulling the lead rope creates pressure, rewarding the calf for a positive behavior. This must be repeated over and over until the calf follows and stops willingly with little pressure. When tying the calf, always tie its head up to encourage this posture in the ring.

Washing Your Calf

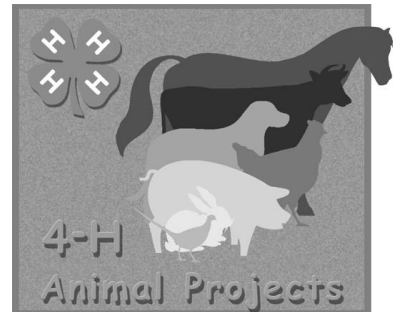
Washing your calf can be fun. But it can also be dangerous. This is not a time for games. Move slowly, so you do not frighten the calf.

- ◆ Put a nylon halter on your calf, as a rope halter will swell once it gets wet. Tie the calf leaving only a few inches of room on the rope. This will keep the calf from moving around.
- ◆ Fill a wash bucket with water from the hose and add enough livestock soap to form a lather. Do not put the soap directly on the calf as it may irritate the skin and cause dandruff and scaling.
- ◆ Before wetting down the calf use the scotch comb and rice root brush to remove as much of the mud and dirt accumulated on the body of your calf as possible. Start wetting the calf at its feet, wet its leg all around. Then slowly wet its underline and work up the body toward the top line. Last, wet its head, holding the ears cupped closed with your hand. Do not get water in the calf's ears. If water gets in the calf's ear, it will hang down and may cause an infection. Once again, use the scotch comb to remove any mud on the calf.
- ◆ Using a sponge or rag, apply soapy water from the wash bucket to the calf and scrub the calf with the rubber brush. Wash the legs and underline as well as the sides and top line. When you wash the head, again, be careful so that you do not get water or soap in the ears.
- ◆ To rinse the calf, work from the top down. Rinse the soap completely out of the calf's hair coat. This is important because any soap left will cause dandruff.
- ◆ Empty out the wash bucket and rinse it well. Then fill it with clean water and put one capful of fly repellent or livestock dip into the water. Carefully and slowly, pour the dip over the calf's top line, starting at the shoulders and pouring toward the rump. Don't pour mixture on its head. This will cut down on the number of flies attacking your calf and will help with grooming the hair.
- ◆ The last step is to brush your calf with a scotch comb followed by a rice root brush.

Going to the 4-H Fair

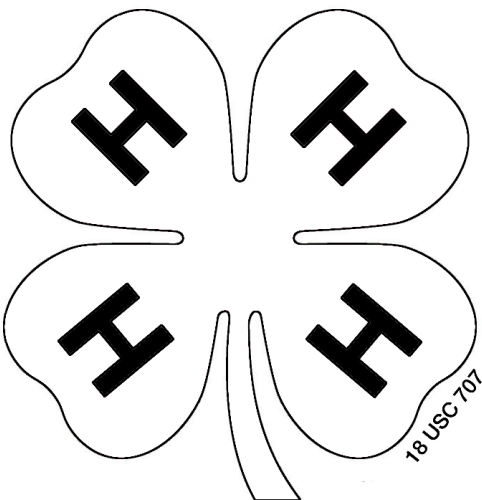
What to take:

- ◆ Calf, halter and spare halter.
- ◆ Tack box to carry your show equipment.
- ◆ Wash brush or rubber comb and soap.
- ◆ Curry comb, scotch comb and rice root brush.
- ◆ Feed, feed pan and water bucket.
- ◆ Bedding, shovel and/or rake.



In the Show Ring

- ◆ This is a slow process. The judge will talk to each exhibitor individually. Wait patiently for your turn. When your turn comes—look the judge in the eye and smile.
- ◆ Talk loud enough for the judge to hear you.
- ◆ Answer all questions honestly. If you don't know the answer, just say so.
- ◆ Smile and have a good time.
- ◆ When you are done, thank the judge and shake his hand.
- ◆ When results are announced, be sure to congratulate other exhibitors. Everyone is a winner when you participate in the bucket calf project.



References:

Oklahoma Cooperative Extension Service
Publication No. 135, 138

Utah State University Cooperative Extension
Publication - "Raising a Bucket Calf"

Cooperative Extension Service, Manhattan, Kansas