

Virginia 4-H Dairy Quiz Bowl Team Study Materials
Section 8. Youngstock

- Heifers account for 15 to 20 percent of total farm expenses on many dairy operations.
- Feed costs account for 55 to 60 percent of the total cost of raising dairy replacement heifers.
- The main criterion for deciding when to wean a calf should be grain intake. A calf should consume a minimum of 1.5 pounds of grain per day for three consecutive days before weaning.
- Recommended protein sources for milk replacers:
 - Casein
 - Dried skim milk
 - Dried whey
 - Dried whey product
 - Dried whey protein concentrate
 - Modified wheat protein
 - Protein modified soy flour
 - Soy protein concentrate
 - Soy protein isolate
- Physical factors which contribute to pneumonia in calves:
 - Drafts
 - Chilling
 - Dampness
 - Poor ventilation
- A calf is 2 to 3 weeks old when it begins to chew its cud.
- The two leading causes of death in young calves are scours and pneumonia.
- Signs of illnesses in calves:
 - Poor appetite
 - Cough
 - Watery manure
 - Nasal discharge
 - Drooping ears
 - Dull eyes
 - Lack of energy
 - Elevated temperature
- When a calf nurses, milk travels through the esophageal groove to the omasum and abomasum. It bypasses the rumen and reticulum.
- Pickled milk is another name for soured colostrum. Seven to ten days are required for pickling colostrum.
- Colostrum contains antibodies that provide immunity from disease for calves.
- Colostrum contains a higher level of protein than normal milk.
- A newborn calf should be fed colostrum for the first three days of life.
- A pre-weaned calf should have 8 to 10 percent of its body weight in milk or milk replacer daily.
- Methods commonly used to identify calves:
 - Eartags
 - Freeze branding
 - Photos
 - Sketch
 - Tattoo
- Extra or supernumerary teats should be removed as soon as they can be distinguished from the four main teats, or at dehorning time. Between 30 and 40 percent of heifers born have extra teats.
- Calves should be dehorned at approximately three weeks of age.
- A 7% iodine solution should be painted on the calf's navel soon after birth to seal the entrance from disease causing organisms.
- The counter-slope system of rearing replacement heifers was developed at Virginia Tech.
- The most important factor to consider in determining when to breed a heifer for the first time is body size.
- Methods of dehorning calves:
 - Paste (caustic potash)
 - Electric
 - Gouge (Barnes type dehorner)
- Calf housing should be clean, dry, and draft-free.
- Systems of calf housing:
 - Calf hutch
 - Elevated stalls
 - Pens on the floor
 - Cold calf housing system
 - Counter-slope system