

Wildcat District

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Bottle Feeding a Calf

Nearly all livestock producers have had a newborn that can no longer nurse its mama. Possibly, the dam has died or is a rejected twin. Regardless, feeding a bottle multiple times daily can be labor-intensive and time-consuming.

An orphaned newborn calf must receive colostrum. Calves are born with little defense against disease. Colostrum is a cow's first milking after calving and is available commercially. This liquid gold provides a calf with vital nutrients and essential antibodies. A calf needs five to six pints of high-quality colostrum in the first hour of birth. The timing of colostrum intake is important because of the gut's ability to absorb the antibodies. Within six hours after birth, the stomach can only absorb two-thirds of the available antibodies. In twenty-four hours, the absorption capacity is reduced to eleven percent. Also, at 24 hours of age, digestive enzymes break down the antibodies.

On day two and after, calves can be fed twice daily with a calf bottle and nipple. Milk replacer powders are reconstituted with warm water, making an excellent and oftentimes economical liquid feed for baby calves. During the first three weeks of life, calves should be fed a replacer containing all milk proteins made from dried skim milk or whey products. Milk replacers should contain 18-22% crude protein, 10-22% percent crude fat, and less than half a percent crude fiber. These commercial milk replacers should be mixed and fed according to the manufacturer's directions.

When the calf is four days old, calf starter and fresh, clean drinking water can be introduced. Calf starter is a palatable feed with adequate protein, minerals, vitamins, and a coccidiostat. During the first couple weeks, calves will nibble calf starter; so only offer six ounces and remove the remaining feed daily. At three to four weeks of life, this intake will increase considerably. Feeding calves free-choice water will increase feed intake and weight gain. Hay should not be offered until calves are weaned from the bottle.

Calves can be weaned from milk when they eat 1.5 to 2 pounds of the calf starter feed for at least three consecutive days. This means that calves should not be weaned based on age but instead based on their feed intake. Some calves can be weaned at four weeks, but others may be up to 10 weeks of age. Calves can be weaned from milk abruptly or gradually over three to seven days.

After weaning, changes in the grain mix and housing should be made one at a time over a twoweek period.

A bottle-fed calf will not have the benefit of its dam's milk with continued support of immunity. So, it's critical to keep the calf in a clean environment. The calf will be vulnerable to diseases like coccidiosis and calf scours.

For more information about livestock husbandry, contact Wendie Powell, Livestock Production Agent, (620) 784-5337, wendiepowell@ksu.edu.

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