

Use bottle holders for newborn calves

Newborn calves are often fed milk in bottles during their first 3-7 days of life. This can be both time-consuming and back-breaking. Using bottle holders can save labor costs and eliminate the need to stoop for long periods while the youngest calves feed.

Benefits of using bottle holders

Less stress on body.

When you hand feed newborn calves, you must hold a milk bottle (4.5 lb. when full) for 1-4 minutes or longer twice a day while the calf consumes it. This means up to eight minutes per day per calf of standing in an awkward, stooped position. This often leads to back fatigue and pain. Also, holding the bottle while guiding the calf to drink puts stress on your arms.

Efficient and easy to use.

Most calves will quickly learn to drink independently from the bottle. Depending



Bottle holders ease the strain of wet feeding.

on the calf, you can either drop the bottle and leave, or monitor the calf with your back straight. With bottle holders placed at the front of pens, built into hutches, or placed on front-runs (wire panels), you can feed bottles without entering the pen or hutch. Slow-drinking calves can take their time without slowing your work down.

Are bottle holders cost-effective?

One case study indicated that an average healthy calf may take 96 seconds (about 1.5 minutes) to finish 2 quarts of milk in a bottle. Using these data, we estimated the labor time saved, using the following assumptions: Calves are bottle-fed for the first five days of life, and out of this 5 day period, calves are able to drink independently for 3 days (day 3-5). Some farmers use portable bottle holders (wire-type)



Stooping to hand-feed newborn calves is tiresome and awkward.

**WORK
EFFICIENCY**



TIP SHEET

Ideas for more efficient wet feeding of calves.

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Cost-Effectiveness of Using Bottle Holders

Calves raised per year ¹⁾	Avg. daily # of calves bottle-fed	Annual labor savings ²⁾	Cost of bottle holders (investment)	Net annual cost savings (labor saved minus cost of holders) ³⁾
60	1.25	\$100	\$8	\$92
120	2.5	\$200	\$16	\$182
240	5	\$400	\$32	\$368
480	10	\$800	\$60	\$740

- 1) Number of calves born and fed milk in bottles up to 1 week of age
- 2) Labor cost estimated at \$ 10.00/hr (including benefits)
- 3) Assuming bottle holders have a life span of one year

while other farmers prefer stationary bottle holders in each hutch or pen. The cost for portable bottle holders varies from \$2.00-\$5.00 each. More durable stationary bottle holders can be purchased for about \$6.00. The number of bottle holders required depends on the herd size, seasonal calving, and work routines used. The financial calculations are summarized in table 1.

Some farmers may have a lower cost for hired or family labor. Calculations based on \$5.00 per hour reduced the annual cost savings by about 55%, and increased the pay back time from one to about 2 months.

Conclusions

- Regardless of herd size and labor cost, using bottle holders appears to be a good investment with a short pay-back time of investment costs, i.e. 1-2 months.
- Using bottle holders reduces the time spent working in awkward and inappropriate postures. Those working postures predispose for future back and hand/arm injury.

- Using bottle holders is a cost-effective way of improving labor productivity as well as work safety/health.

Where Can I Get Bottle Holders?

Portable bottle holders are available in several designs. Some may be more durable than others. If you are not satisfied with the quality of what is available on the market, ask a skilled local welder to make stronger portable bottle holders, use nipple pails or install stationary bottle holders.

Permanent bottle holders are manufactured as accessories to hutches, but can also be installed as permanent features of pens. They are made of a strong plastic material ("Poly"). Farmers can purchase bottle holders from local feed and farm equipment suppliers, and from hutch distributors.

This material was developed by the Wisconsin Healthy Farmers, Healthy Profits Project. Our goal is to find and share work efficiency tips that maintain farmers' health and safety and also increase profits. For more information, call (608)262-7408 or visit our website at <http://bse.wisc.edu/hfhp/>

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