



Penn State Cooperative Extension Capitol Region Dairy Team

**DO YOU HAVE
A FARM
VACCINATION PLAN?
Dr. Arlen Mills
Capitol Region
Extension Veterinarian
Lebanon**



Dr. Arlen Mills

Vaccination is an essential part of any infectious disease control program for dairy farms. But to be successful, it must be planned to meet the needs of each operation. It must be remembered that vaccines (we hope) increase the animal's resistance to disease, but that resistance can be overwhelmed if good management practices are not followed.

A question which comes up with several of the viral infections is whether to use a killed vaccine or a modified live type vaccine. This continues to be debated, but the consensus is that, especially for the first immunization that a young calf receives, modified live vaccines give superior protection.

Setting up a vaccination program means determining 1) which diseases to vaccinate

against, 2) which animals to vaccinate, and 3) when will the animal most need the protection that is to be provided? In light of this, a basic vaccination program that I recommend will be presented. Remember that this may need to be discussed with your veterinarian to determine what is

best for your farm.

On most farms, calves can receive their first immunizations at four to six months of age. This is where the use of a modified live vaccine is recommended containing BVD, IBR, PI3, BRSV and leptospirosis. Repeat this in four to six weeks to get those calves which did not respond to the vaccine initially and to ensure good BRSV protection.

On some farms with respiratory problems in the younger-age calves, I have vaccinated earlier, using this same vaccine or with just a modified live BRSV. Early vaccinated calves should be vaccinated at four to six months of age like any other calf, because we are never sure of the duration of immunity of early vaccinated calves.

Calves should also receive a Clostridial bacterin as well at the four- to six-month age. I am recommending this more often now as we seem to be seeing more of the Clostridial enteritis in dairy herds and the potential for Clostridial diseases is always present.

A new vaccine has recently been released for leptospirosis. The vaccines that have the five-strain leptospirosis that we have been using for a number of years are known to be ineffective in protecting against the hardjo strain that is actually most common in cattle.

A new vaccine recently became available for the leptospirosis strain. The vaccine must be given before exposure to leptospirosis may occur. If infection may already be possible, pretreating with an antibiotic and then vaccinating is recommended. For the vaccine to be effective in cows, pretreatment with the antibiotic is necessary before or

concurrent with vaccination with the new leptospirosis vaccine. Since the new vaccine only contains the one type of leptospirosis, we must continue to use the five-strain vaccine to protect against the other leptospirosis strains.

The next vaccinations are due as prebreeding boosters. At this time, repeat the modified live vaccine containing BVD, IBR, PI3, BRSV, and leptospirosis. In herds which have had a Salmonella problem, start heifers on a core antigen type bacterin at this time as well.

The next task is the dry cows and prefresh heifers. This is a good time to boost the cow's immunity to BVD, IBR, PI3, BRSV, and leptospirosis. This will enhance the level of antibodies available in the colostrum for the calf and provide a boost to the cow's immunity at a critical time.

I recommend the use of a killed vaccine at this time, because you should have good immunity from the modified live vaccine given earlier and the killed vaccines are labeled for use in bred animals. There are modified-live vaccines labeled for use in bred cows, but they must have had the same vaccine given prebreeding or abortions may result.

The dry cows and prefresh heifers may also get a J5 bacterin-toxoid to prevent coliform mastitis. The number of doses will depend on the vaccine used. This is also the time to begin a Rota and Corona scour vaccine program if this is a farm problem. I prefer a scours vaccine that also contains E. coli and

Clostridial antigens. Do not vaccinate within a week of freshening, or the week after freshening either. During this critical time, the cow's immune system is depressed to the point of not being able to respond to a vaccine.

I see a lot of variation in the vaccination of the lactating cows. If the young stock vaccination program is being done properly, then I find that the type of vaccine used in the adult cows isn't as critical. Some producers are using a modified live vaccine as a booster for all fresh cows prebreeding. Just remember to read and follow label directions carefully.

Many producers are using killed products in the lactating cows successfully. If the whole herd is being vaccinated at one time, vaccination should be done twice yearly. Vaccinate in the fall and again in the spring. Discuss with your veterinarian the pros and cons of using a modified-live vaccine vs. a killed product.

In the last several years, I have seen more and more respiratory problems in adult cows. Switching these herds to a vaccine that had a live BRSV fraction in the lactating cow booster seemed to be helpful. These herds had not been using a modified live vaccine in the young stock, which I'm sure is part of the problem.

A successful vaccination program takes careful planning. The program must be scientifically correct and supported by good management practices.

'Great Holstein Roundup' Under Way

BRATTLEBORO, Vt. — Holstein Association USA, Inc. has announced the beginning of the "Great Holstein Roundup."

The goal of the "Great Holstein Roundup" is to ensure a strong genetic base for the breed in the future by preserving today's top genetic information.

This fall, Holstein Association

owners and the dairy industry.

Every herd will sell some day, whether planned or due to some unforeseen circumstance. The transfer guarantees a higher price for the registered Holstein at the time of sale. Registered Holsteins continue to give buyers a high rate of return for a minimal investment, in addition to building

a strong genetic base in their herd.

Holstein Association USA, Inc. encourages any Holstein breeder who has purchased animals in the past to call (800) 952-5200 to find out how they can participate in the "Great Holstein Roundup."

USA is searching for any registered Holstein that may have been sold without an ownership transfer, regardless of purchase or sale date.

An ownership transfer officially records the animal's current ownership with the association. The registered Holstein's ancestry and lactation information is beneficial in making profitable breeding decisions, both for that specific animal and for her offspring. Without a transfer, the valuable genetic information will be lost for herd

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