

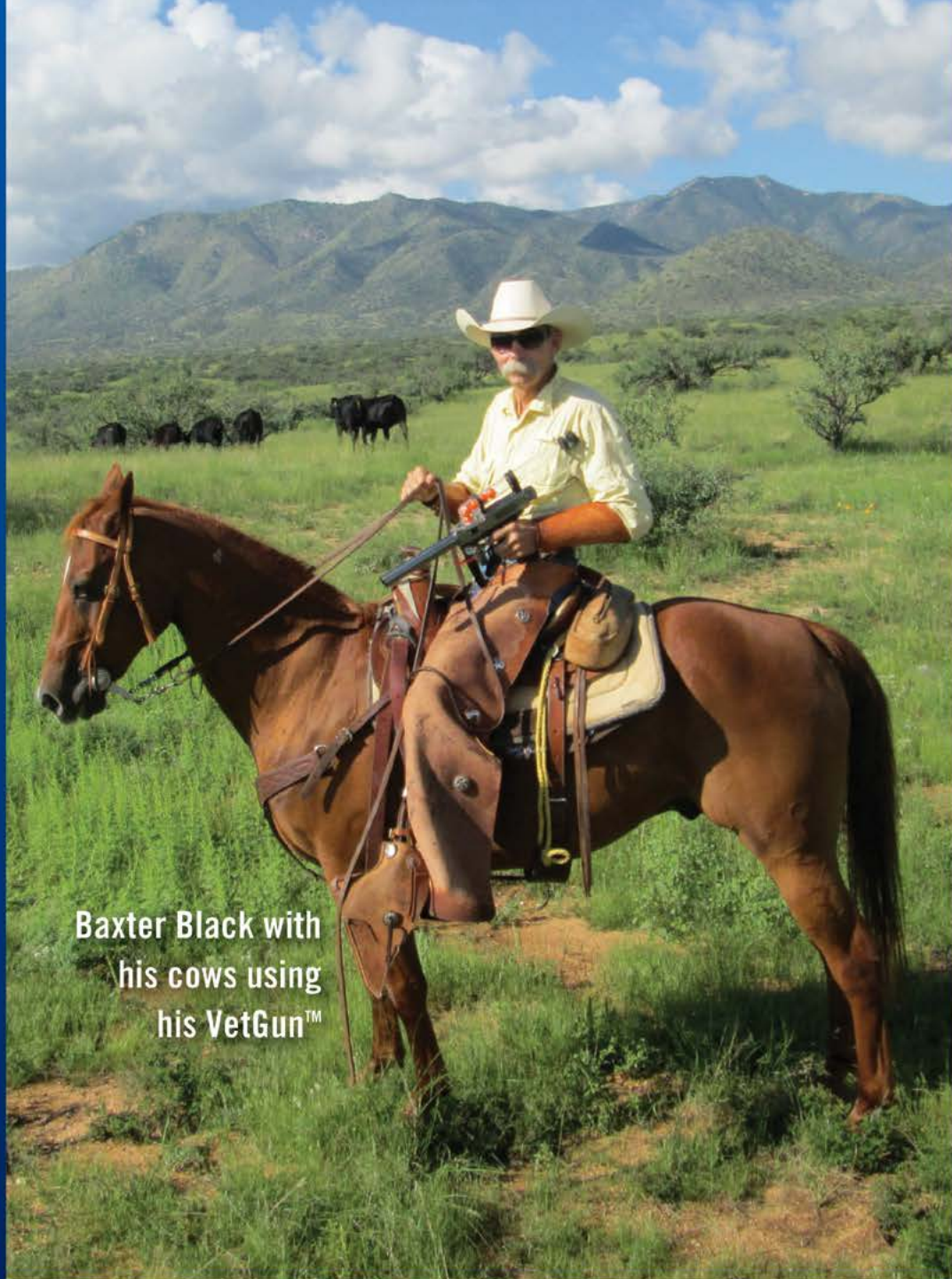
2015 Cattle Guide



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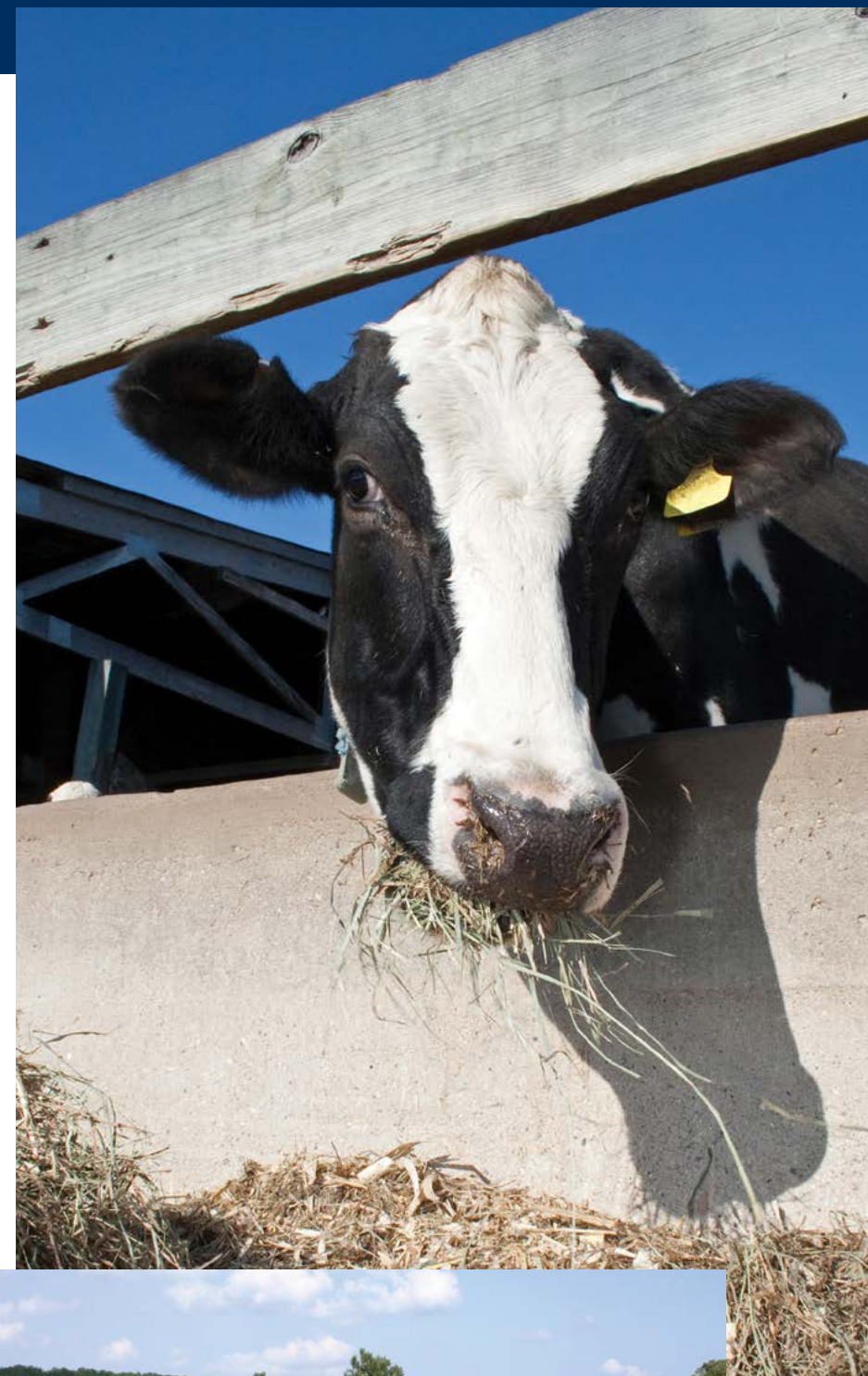


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Continuing to meet the needs of beef cattle producers, dairy operations, cow/calf customers as well as veterinary professionals, Animal Health International has strategically-located distribution points, more than 400 sales and customer service representatives, innovative technologies, and the broadest offering in the industry.

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Managing Dairy Calf Health



From the time of birth until weaning, dairy calves are faced with many disease challenges and stressors. Maternity pen management, timely administration of colostrum, sanitation, proper housing and pre-weaning nutrition are fundamental in increasing calf resistance to disease and reducing the calf's exposure to harmful pathogens. Unfortunately, of the pre-weaned calves that die in the U.S., 56% suffered from diarrhea or other digestive disorders, and at least 22% suffer from respiratory disease (NAHMS 2007). Treatment of disease, death of potential replacement heifers and potentially delaying the age at which heifers calve for the first time can be very costly for the dairy.

Metabolic demands for growth, stress and fighting off invading pathogens by the immune system results in the formation of reactive oxygen species (ROS). ROS are very damaging to normal cells of the body including the immune system. Oxidative stress occurs when the antioxidant systems of the body are overwhelmed. Trace minerals such as zinc, manganese, selenium and copper are essential in the formation of antioxidants which neutralize the harmful effects of ROS. By maintaining the oxidative defense system, resistance to disease challenge can be maintained through protecting the immune system.

MULTIMIN® 90 is an injectable trace mineral supplement containing zinc, manganese, selenium and copper. Recently the administration of MULTIMIN® 90 into dairy calves at 3 and 30 days of age was evaluated in a large trial by Cornell University. At 14 days of life, calves supplemented with

MULTIMIN® 90 demonstrated greater immune function and higher antioxidant activity. In addition, calves supplemented with MULTIMIN® 90 had a significantly lower incidence of diarrhea and the combined incidence of pneumonia and otitis.

Teixeira A.G.V., Lima F.S., Bicalho M.L.S., Kussler A., Lima S.F., Felipe M.J., Bicalho R.C. Effect of an injectable trace mineral supplement containing selenium, copper, zinc and manganese on immunity, health and growth of dairy calves.

Journal of Dairy Science Volume 97, Number 7, July 2014.



A DOLLAR* CAN MAKE THE DIFFERENCE!

A recent Cornell University study in dairy calves injecting MULTIMIN® 90 at day 3 and day 30 of life, indicated:



Complete study data available on request

WWW.MULTIMINUSA.COM

*approximate cost of two, 1ml doses

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*Implant training does not guarantee zero defects.
**Calculation assumes 700 lb. feeder weight, \$141.00 cwt, 150 days on feed, \$280/ton dm feed price.
*Duckett et al., 2013. Antibiotic implants and meat quality. Journal of Animal Science, 92: 3-9.

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*Hoard's Dairyman 2014 Continuing Market Study



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Probios® Dispersible Powder 240g jar, 5 lb jar, 25 lb pail
Probios® Feed Granules 5 lb jar, 50 lb bag
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Achieve®PRO 800g jar, 4000g pail, 8000g pail

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T.D.N. Rockets® Mini 50 ct jar, 500 ct pail

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Selecting a Probiotic for Digestive Health in Calves and Cattle

What are probiotics?

Probiotics are live bacteria that benefit the health of the host animal. Probiotics, or direct-fed microbials, support the growth of beneficial microbes in the gastrointestinal tract, unlike antibiotics which indiscriminately kill both good and bad bacteria, upsetting the natural balance in the gut.

Probiotics, including lactic acid bacteria and yeasts, are given to calves and cattle to support digestion and improve intake. These beneficial bacteria support the immune system and improve performance, making them an economically smart decision for producers looking toward their bottom line.



Benefits of probiotics

Animals are born with a sterile gastrointestinal tract, but bacteria are needed to facilitate proper digestion of food. The GI tract is naturally populated with bacteria from the mother and the environment within a few days of birth. The intestine becomes a natural host to 100 trillion microbes which may include several hundred beneficial and pathogenic species. Introducing probiotics to a newborn calf accelerates growth of the right bacteria and helps to ensure that the beneficial microbes, rather than pathogenic microbes, are adhering to the intestine. Feeding probiotics helps to crowd out the bad bacteria to create a proper balance of microflora in the gut as soon as possible after birth.

It is essential that the right bacteria are present for optimal nutrient absorption and digestion. Certain probiotic strains influence enzyme activity to increase nutrient absorption. Bacteria and enzymes help the body to break down food so that animals get the essential nutrients from forage. Probiotics support a healthy appetite and increased food intake. Increased dry matter intake during the transition period generally leads to fewer metabolic problems, thereby reducing cost for clinical treatment and reliance on antibiotic therapy.

Because 70% of the cells that comprise the immune system are contained in the wall of the intestine, a healthy gut is critical in maintaining an animal's overall health. When the gut microflora is well balanced, the animal is less susceptible to disease. During times of stress or infection, the balance of bacteria may shift so that a greater number of the pathogenic bacteria are present. Probiotics are especially recommended during times of stress such as birth, weaning, shipping and receiving to avoid the proliferation of the bad bacteria. After antibiotic treatment, probiotics can help get the good microbes back up to speed and re-balance the digestive system.

Probiotics can reduce the intestinal pH to create a negative environment for the growth of pathogens, consume their nutrients, and crowd out binding sites so that the bad bacteria

do not have a chance to colonize. A balanced rumen pH prevents acidosis and the associated conditions including lameness.

Healthy cows cost less for treatment of clinical conditions and generate more milk. Probiotics help support healthy cows, resulting in this twofold economic benefit. Supplementing calves with a probiotic helps them start out with a balanced gastrointestinal tract, and stressed cows will benefit from targeted supplementation to help maintain the natural balance of bacteria in the gut and continue with optimal production.

Choosing a probiotic product

The specific benefit of a probiotic product is dependent on the particular strain or combination of strains it includes. For the maximum benefit, it is important to choose a product with strains carefully selected to survive the manufacturing process and the gastric pH once ingested. Commonly seen in probiotics for dairy cattle are lactic acid bacteria including *Lactobacillus* species and *Enterococcus faecium*. Various *Bacillus* bacteria are also used; these are a hardier, spore-producing bacteria that can withstand harsher manufacturing and storage conditions. Probiotics are delicate microorganisms so manufacturers use varying processes to ensure the bacteria are stable and available for use once consumed by the animal.

Every animal needs good bacteria in the gut to facilitate the proper digestion of their feed. Probiotics are good bacteria that can help boost the levels of naturally occurring, beneficial bacteria in the gut. Promoting the growth of good bacteria supports the overall health of the animal, leading to a more productive herd.





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*An aid in prevention of disease caused by BRD, BVD Types 1 and 2, PI, and BRSV; and an aid in reduction of severity of pneumonic pasteurellosis caused by *M. haemolytica*. Pyramid and Presponse are registered trademarks of Boehringer Ingelheim Vetmedica, Inc. ©2012 Boehringer Ingelheim Vetmedica, Inc. BIVI 1587-Ad3

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Pharmacy Advantage Program For Large Animal Veterinarians



The amount of resources required to manage your client's prescriptions can be time consuming and costly. Animal Health International developed a prescription service program called Pharmacy Advantage that puts the hassle of prescription ordering, tracking, reporting, dispensing, monitoring and billing on us, so you can focus on your client's animal welfare. When you partner with Animal Health International to manage your prescription fulfillment, you'll have the peace of mind that your prescriptions are being handled by licensed pharmacists, customized to meet your needs and adhere to your state's rules and regulations.

Prescriptions filled when you need them

- Standing prescriptions are in stock and available when needed.
- Prescriptions are tracked and you are notified ahead of time when prescriptions are due to expire, so you can renew as needed.
- Our Vet Prescription Template by Species is tailored to help you save time writing prescription for clients with same needs.
- You can provide verbal authorizations on prescriptions via phone, when you are on the go.
- Prescriptions are dispensed only when there is a VCPR (veterinarian-client-patient-relationship) in place.
- Most prescription drugs are tracked by lot number, so if there is an adverse reaction or drug recall, prescription information can be shared with the manufacturer or tracked to a specific customer.

Meets State and FDA rules and regulations

- Licensed pharmacists ensure all dispensing is accurate and manage required prescription record keeping, so you can focus on your client's animal welfare.
- Animal Health International is setting the bar for monitoring Veterinary Feed Directive (VFD) products. Manufacturers' legend status on their water soluble antibiotics and medicated feed additives is continually tracked to ensure you are in compliance with FDA regulations.
- Reports are made available based on your choosing or your state's reporting requirements, allowing you to track your client's prescription usage.
- Animal Health International is a member of GlobalVetLINK (www.globalvetlink.com), an electronic service that makes it easier to send your VFD forms to us.

Flexible billing options

Invoices can be sent to you or your client to best meet your client's business requirements.

Fast and convenient delivery

Next-day delivery to most U.S. locations. Free shipping on qualifying orders.

Complete prescription information at your fingertips

Easily obtain detailed product information, product images, special promotions, and links to Compendium and SDS information on any prescription.

Modified-Live Viral Vaccine Label Comparisons

Category	Indications	Pyramid ^{2,4}	Express [®] FP ^{4,5}	Bovi-Shield GOLD [®] FP [®] HB ¹	Bovi-Shield GOLD [®] FP [®]	Vista [®]	Arsenal [®]	Titanium [®]
Respiratory Claims & DOI Claims	BVD Type 1	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Control & DOI of 206 days	Aids in Prevention ⁶	Aids in Prevention
	BVD Type 2	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Control & DOI of 200 days	Aids in Prevention ⁶	Aids in Prevention
	IBR	Aids in Prevention ⁷	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention & DOI of 182 days	Aids in Prevention	Aids in Prevention
	BRSV	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention	Aids in Prevention
	PI ₃	Aids in Prevention	Aids in Reduction	Aids in Prevention	Aids in Prevention	Aids in Control	Aids in Prevention	Aids in Prevention
Reproductive Claims & DOI Claims	Leptospirosis L5	Aids in Prevention SINGLE DOSE	Aids in Reduction 2 DOSE	Protects Against Disease 2 DOSE	Aids in Prevention SINGLE DOSE ³	Aids in Prevention SINGLE DOSE	NOT AVAILABLE	Aids in Prevention SINGLE DOSE
	<i>L. borgpetersenii</i> serovar <i>hardjo-ovis</i> (LHB)	NO LABEL CLAIM	Prevents Urinary Shedding 2 DOSE	Prevents ⁸ Urinary Shedding 2 DOSE	NO LABEL CLAIM	Aids in Prevention of Urinary Shedding SINGLE DOSE	NOT AVAILABLE	NO LABEL CLAIM
	BVD Type 1 PI	Aids in Prevention	Prevents Disease	Prevents Disease & DOI of 365 days	Prevents Disease & DOI of 365 days	Aids in Prevention & DOI of 206 days ¹	Aids in Reduction	NO LABEL CLAIM
	BVD Type 2 PI	Aids in Prevention	Prevents Disease	Prevents Disease & DOI of 365 days	Prevents Disease & DOI of 365 days	Aids in Prevention & DOI of 112 days ¹	NO LABEL CLAIM	NO LABEL CLAIM
	IBR Abortion	NO LABEL CLAIM	NO LABEL CLAIM	Aids in Prevention & DOI of 365 days	Aids in Prevention & DOI of 365 days	Aids in Reduction & DOI of 217 days	NO LABEL CLAIM	NO LABEL CLAIM
<i>Vibrio</i> (<i>C. fetus</i>)	NOT AVAILABLE	Aids in Reduction 2 DOSE	Aids in Prevention ³ 2 DOSE	Aids in Prevention ³ 2 DOSE	Aids in Reduction SINGLE DOSE	NOT AVAILABLE	NOT AVAILABLE	
Restrictions	None	None	Hypersensitivity VL5	Hypersensitivity VL5	Do Not Use in Pregnant Cows	Use Only in Non-Pregnant Cows	Do Not Use in Pregnant Cows	
Dose Size 2 mL SQ	YES	YES	2 mL - 5 mL with VL5	L5 & VL5; IM only	YES	YES	YES	
Whole Herd Claim (Suckling Calf/Nursing Cow)	YES	YES	YES	YES	NOT APPROVED	NOT APPROVED	NOT APPROVED	
Age Restrictions	No age restrictions	No age restrictions	3 months - VL5	3 months - VL5	6 months or older	2 weeks or older	No age restrictions	

USDA Levels
Prevents Infection
Prevents Disease
Aids in Prevention
Aids in Control or Reduction
Other Claims
Label Claims
Label Warnings/Restrictions

¹Approved for fetal infection including persistent infection. DOI is based on fetal infection studies, not PI studies. Demonstrated BVD PI DOI is 112 - 121 days.
²Prevents establishment of *L. hardjo* in the genital tract and aids in preventing infection of the fetus.
³PregGuard[®] 10 requires a booster.
⁴Requires prior pre-breeding vaccination. Follow label directions.
⁵Available with *H. somnus*.
⁶Only contains a non-cytopathic BVD Type 1.
⁷Aids in Reduction on Pyramid 10 and Pyramid 2 + Type 2 BVD LPH.
⁸LABEL INDICATIONS: The Express FP vaccine may be administered to pregnant cattle provided they were vaccinated, according to label directions, with any Express FP vaccine prior to breeding. Express FP products may be administered to calves nursing pregnant cows provided their dams were vaccinated with an Express FP product prior to breeding.



Dairy Heifer Health, Disease Control and Vaccinations

The future of the dairy herd is dependent on the production of superior heifers to replace culled lactating animals. Therefore, it is imperative that the health status of the replacement animal is optimized to present a healthy first calf heifer to the lactating herd. Studies have consistently demonstrated the detrimental effects of pneumonia in calves on age at first calving and on milk production once these animals enter lactation. Calves with respiratory infections were twice as likely to leave the herd, and age at first calving was delayed by 6 months when compared with calves that did not experience respiratory disease or pneumonia. In another study, calves treated for scours were three times more likely to calve at 30 months of age or greater.

The areas of primary concern in maintaining the optimal health of the heifers include parasite control, coccidiosis, infectious diseases like IBR, BVD, PI3 and BRSV, and other problems such as pink eye and foot rot. Mastitis control in pre-partum heifers is also included in this list.

Health

Both parasite control and the feeding of growth promotants improve feed efficiency and enhance growth. Regular deworming and treatment programs for internal and external parasites are essential to improve heifer performance. At the Virginia Tech dairy facility, we use a strategic deworming protocol. This protocol not only deworms the heifers, but decreases the parasite (worm) larva population on the pasture. Heifers are first dewormed in early May, using an ivermectin or eprinomectin product. This rids the heifers of the initial parasite burden obtained during the early warm, moist days of spring, when parasite loads are beginning to peak in cattle and on the pastures. The second deworming occurs 5 weeks later dependent on whether the product is a pour-on, injectable or bolus. The reason for this second 5-week injection is two-fold. First, the ivermectin has residual internal parasite killing activity for 2 weeks. Therefore, any parasites developing in the digestive tract during this time period of 2 weeks will be eliminated. After this 2-week period, many parasite larva ingested on the grass or pasture contamination will develop into adults. This development period is approximately 3 weeks (larva to adult parasite). The second injection, 5 weeks later in mid June will eliminate or kill these adults. By keeping the adult infection (which produce larva for the pasture) to a minimum within the digestive tract of the calf, we maintain minimal parasite burdens on the pasture as well. These two injections give adequate protection during the peak period of parasite contamination.

When using the eprinomectin pour-on product the second deworming should be administered at 5 weeks, as well. There is some data to support a residual activity of 4 weeks with the eprinomectin product; however, to date, this is not supported with adequate information.

Typically by early July, pasture parasite loads will begin to decrease due to hot weather and decreased moisture. If good parasite management has been implemented, parasite burdens on the pasture will be negligible. Producers should be cautioned against introducing heifers that have not been dewormed, as they can be a source of parasite contamination for the pasture and the original dewormed heifers. A third deworming of a single dose of either product may be beneficial in late October. This would eliminate internal and external parasites (grubs and lice) obtained during the

summer and decrease the parasite load prior to winter feeding. Also, if the summer season has been mild and moisture has been high, parasites will survive in higher numbers on the pasture, causing a higher heifer parasite load.

Coccidia control measures should be started in baby calves at 5 to 10 days of age and continue until 30 days prior to calving. These products are found in some milk replacers as well as a feed additive in concentrate. Medicated feeds may improve performance and can aid in the prevention of coccidiosis, when calves are fed a specific coccidiostat like decoquinate, Rumensin®, or Bovatec®. Ionophores, such as Bovatec® or Rumensin®, are effective as an aid in reducing coccidiosis, but have the added benefit of improving feed efficiency. However, ionophores are not effective as a treatment against coccidia. If calves have been diagnosed with coccidiosis, they should be treated with Corid® (amprolium) or sulfonamides (sulfa) and then fed one of the ionophores for prevention. Supplementation costs pennies per heifer per day, which is more than offset by decreasing the amount of grain required per pound of gain, or supporting adequate growth with lower quality forage for older heifers. The use of ionophores in confinement-reared heifers or those fed excessive energy rations may lead to over-conditioning. This is especially important during the time calves are 3 to 9 months old or the pre-pubertal phase of rapid mammary gland development. Excess feeding during this period can lead to a decrease in milk secretory tissue.

Cryptosporidiosis is perhaps one of the larger problems we face in nursing replacements. It has been diagnosed on essentially every dairy farm in the United States. In our experience, it strikes calves at approximately 8 to 14 days of age, causing a profuse diarrhea with subsequent dehydration. Morbidity (number of calves with the disease) is high, however mortality is low with the proper administration of fluids and supportive therapy. Therapy and vaccinations are now being tested to eliminate this problem, but at this time, products have not been adequately tested to advocate their use. Adequate intake of quality colostrum and keeping calves clean, dry and comfortable, thereby reducing stress, are the essential components to combat cryptosporidiosis.

Vaccination protocols

Vaccination programs in the heifer herd are tailored to protect against the diseases prevalent in the area and specific diseases on individual farms. Herd owners should consult their herd veterinarians for specific vaccination protocols for your area. Most vaccinations are initiated between 4 and 5 months of age, when maternal protection gained from colostrum has subsided. These vaccinations may need to be repeated 3 weeks later, following label directions to ensure peak immunity or protection. Follow all label directions, as some vaccinations must be repeated, while others are single injections. Vaccinations should be repeated 45 days prior to breeding or at approximately 12 to 13 months of age. Injections are then repeated at 18 months of age and 45 to 60 days prior to calving for sufficient

levels of immunoglobulins (antibodies) in the colostrum for the calf. Many of the diseases that cause infertility and early embryonic death or abortion can be prevented with proper vaccination procedures. Again, the type of vaccination will depend on the diseases that have been isolated on a specific farm or are found in your specific region.

Following is a list of typical management procedures and vaccination protocols. These can vary depending on the area of your farm location or specific diseases that have been isolated on your farm. This protocol should only serve as a guide, as specific vaccination questions should be directed to your veterinarian.

Suggested Vaccinations and Procedures in a Dairy Heifer Program

Birth to Calving

• The Newborn (1 to 10 days of age)

- Inject with 3 cc Vit E and selenium at birth (white muscle disease)
- Inject with 2 cc Vit A and D (calves are born with small reserves)
- Tattoo and/or Identify calf
- Begin ionophores at 4 to 5 days of age for coccidia prevention (in milk replacer or calf starter)
- Bleed at 2 to 10 days of age to determine immunoglobulin levels (colostrum management)

• One Month

- Dehorn with electric dehorers
- Vaccinate with 7-way clostridium
- Measure height and weight when removed from the hutch

• 2 to 5 Months

- Clean and disinfect hutches when calf is removed
- Start fly control program (summer months), concentrate on udder area if using sprays
- Monitor weight, height, and body condition score
- Continue coccidia control
- Strategic deworming if turned out to pasture

• 5 to 6 Months

- Vaccinate for brucellosis
- Vaccinate with 7-way clostridium (repeat in 3 weeks)
- Vaccinate for IBR, PI3, BVD, BRSV ** (follow label directions for repeating procedure) ** (Use the modified live product – keep calves away from adult cows)
- Deworm
- Check for extra teats
- Measure weight, height, and body condition score

• 6 to 13 Months

- Monitor weight, height, and body condition score
- At 13 months **, repeat IBR, PI3, BVD, BRSV at least 45 days prior to breeding ** (Use the modified live product – keep calves away from adult cows)
- Vaccinate for leptospirosis
- Vaccinate for vibrio if natural service is used
- Deworm

• Pregnant Heifers

- Monitor weight, height, and body condition score
- Maintain sound nutritional management for adequate growth
- Maintain coccidia control and strategic deworming program
- Vaccinate against leptospirosis at 18 to 20 months
- Vit E and selenium 45 to 60 days prior to freshening
- Vaccinate with E. coli, rotavirus and coronavirus beginning 60 days prior to freshening

Source: Virginia Tech and Virginia State University Cooperative Extension; Tom Bailey, Extension Specialist, Virginia-Maryland Regional College of Veterinary Medicine; Julia M. Murphy, Extension Specialist, Virginia-Maryland Regional College of Veterinary Medicine; Robert James, Professor, Department of Dairy Science, Virginia Tech.



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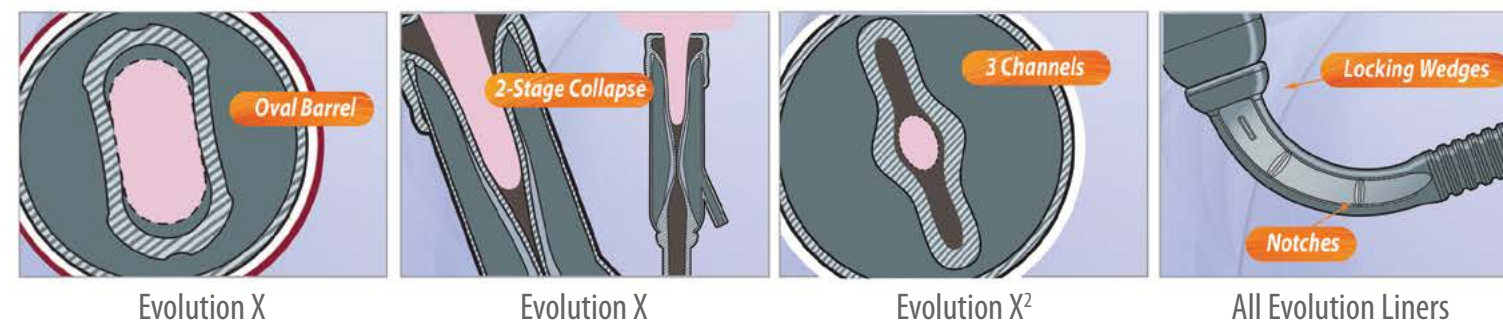
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THE NEW Z2 NO-TEAR TAGGER™ WITH ITS REVOLUTIONARY DUAL-ACTION KICKBACK JAW AND FLIP-OUT PIN





Ten Tips for Improving Ear Tag Retention

by Stu Marsh, Senior Vice President of Business Development & Marketing, Z Tags. 800-511-4744, www.ztags.com

Everyone who applies ear tags to livestock has had problems with tag retention. In this article, I will review the basic tagging techniques you may be aware of and hopefully identify a few new techniques that will help you get closer to that goal of 100% retention.

Even slightly torn ears lead to lost tags

To be successful, you must get the tag applied to the ear without tearing the ear. Most tag applicators have a stationary pin or needle that must be retracted from the ear before the animal jerks away. This is a guessing game for the producer and most find that they are successful about 80 to 90 percent of the time. Unfortunately, that 10 to 20 percent of the time where the animal is quicker than the human leads to torn ears and lost tags.

Retention starts with application

Most producers blame the tag for not staying in the ear. They find tags on the ground or see an animal without tags and think the tags failed. This may be true, but in some cases, a tag gets lost because it was not applied correctly. Remember, tag retention starts with proper application.

Take time to be precise

When working livestock, it's not uncommon for the least experienced hand to get the ear tagging job. This can be a big mistake if the individual does not have the proper training or the awareness about the importance of being precise with tag application. One must be sure to avoid the circulatory system in the ear and the cartilage that supports it. Severing a vein or artery is messy and may lead to frost bite and tag loss in cold environments. Breaking the cartilage may lead to dropped ears that may never recover from this injury.

Promote rapid healing

You want the ear tissue to heal quickly and snugly around the shaft of the tag. You do not want the tag to be loose in the ear after the ear has healed. Loose tags become lost tags. A loose tag will wallow out the ear, and the tag will be easily pulled off if the animal rubs its ear against fencing, brush or other obstacles in its environment.

Remove twine or netting from hay bales

Twine and netting on hay is the most common reason for tag loss. When the animal feeds and then removes its head from the bale, the twine or netting catches the button or male panel on the back of the ear and breaks or separates the tags. You may find broken tags or whole tags on the ground around feeders, or they may fall out later as the animal roams around the pasture. Simply removing the twine or netting may improve tag retention to nearly 100%.

Remove sharp edges

Check the environment for sharp edges where the animals stick their heads. Check all head catches, gates, hay rings and stanchions where rust or welds may be cutting the tags from the ears.

Use brand-name tags made from quality materials

This is one area where you *can* get what you pay for. Most producers are looking for performance over price. Do you really know the true cost of a lost tag? It depends on your management scheme, but it's usually much more than what you paid for the tag. Well known ear tag manufacturers use high-quality polyurethane that outperforms so-called "low-cost products."

Make a new hole every time

Never put a tag in an existing hole in the ear. Remember the goal of healing? How do you expect the ear tissue to heal tightly around the shaft of the new tag if you are putting it in an old hole? It won't! As hard as it may be to resist, always make a new hole. To do this, one must get in and out of the ear before the animal reacts.

Insecticide Ear Tag Comparisons

2013 Products	Manufacturer	Applicator	Active Ingredients	Ingredient Type	Length of Control (2 tags)	Horn Flies	Face Flies	Gulf Coast Tick	Spinose Ear Tick	Stable Flies	House Flies	Lice	Cattle Fever Tick	Beef	Lactating Dairy	Non-Lactating Dairy	Calves (over 3)
Corathon™	Bayer	Allflex® Universal Total Tagger	Coumaphos 15% Diazinon 35%	OP	Up to 5 months	C	C	C	C	NC	NC	NC	NC	Y	N	Y	Y
CyGuard™	Bayer	Universal Total Tagger	Beta-cyflutherin 15%	P	Up to 5 months	C	C	C	C	NC	NC	NC	NC	Y	Y	Y	Y
CyLence Ultra®	Bayer	Allflex® Universal Total Tagger	Beta-cyflutherin 8% PBO 20%	SP	Up to 5 months	C	C	C	C	NC	NC	NC	NC	Y	Y	Y	Y
PATRIOT™	Bayer	Allflex® Universal Total Tagger	Diazinon 40%	OP	3 to 5 months	C	AC	NC	C	AC	AC	AC	NC	Y	Y	Y	Y
Terminator II	Bayer	Allflex® Universal Total Tagger	Diazinon 20%	OP	Up to 5 months	C	AC	C	C	AC	AC	AC	NC	Y	N	Y	Y
Dominator®	MERCK Animal Health	Universal Total Tagger	Pirimiphos-Methyl 20%	OP	Up to 5 months	C	AC	NC	NC	NC	NC	NC	NC	Y	N	Y	Y
Double Barrel® VP	MERCK Animal Health	Allflex® Universal Total Tagger	Lambda-Cyhalothrin 6.8% Pirimiphos-Methyl 14%	B	Up to 5 months	C	C	NC	NC	NC	NC	NC	NC	Y	N	Y	Y
SABER™ EXTRA	MERCK Animal Health	Allflex® Universal Total Tagger	Lambda-Cyhalothrin 10% PBO 13%	P	Up to 5 months control of horn flies. Up to 4 months control of face flies.	C	C	NC	NC	NC	NC	NC	NC	Y	N	Y	Y
GardStar® plus	Y-TEX	Y-TEX® UltraTagger® Plus	Permethrin 10%	P	Up to 5 months	C	C	C	C	AC	AC	AC	NC	Y	Y	Y	Y
Optimizer®	Y-TEX	Y-TEX® UltraTagger® Plus	Diazinon 21%	OP	Up to 5 months	C	AC	C	C	NC	NC	AC	NC	Y	N	Y	Y
Python®	Y-TEX	Y-TEX® UltraTagger® Plus	Zeta-cypermethrin 10% PBO 20%	SP	Up to 5 months 3 to 4 months w/1 tag	C	C	C	C	AC	AC	C	NC	Y	Y	Y	Y
Python® Magnum™	Y-TEX	Y-TEX® UltraTagger® Plus	Zeta-cypermethrin 10% PBO 20%	SP	Up to 5 months 3 to 4 months w/1 tag	C	AC	C	C	AC	AC	C	NC	Y	Y	Y	Y
Warrior	Y-TEX	Y-TEX® UltraTagger® Plus	Diazinon 30% Chlorpyrifos 10%	OP	Up to 5 months 3 to 4 months w/1 tag	C	AC	C	C	AC	AC	C	NC	Y	N	Y	Y
XP 820™	Y-TEX	Y-TEX® UltraTagger® Plus	(Avermectin B1a and Avermectin B1b 8%) and (Piperonyl Butoxide 20%)	M and PBO	Up to 5 months 3 months w/1 tag (has fever tick claim)	C	AC	C	C	NC	NC	NC	AC	Y	N	Y	Y

OP – Organophosphate
PBO – Piperonyl Butoxide
M – Macrocylic Lactone
OC – Organochlorine

P – Pyrethroid
B – OP+P
CH – Chlorinated Hydrocarbon
SP – Synergized Pyrethroid

AC – Aids in Control
NC – No Claim
C – Controls
Y – Yes
N – No

Disclaimer: Every effort has been made to ensure the accuracy of the information published. However, because products and labels change, it remains the responsibility of the users to familiarize themselves with the product information contained on the product label or package insert.

Location, location, location

Educate your crew about the proper placement of tags. Visually divide the ear into four quadrants horizontally and vertically. When tagging cattle, always place tags on the inside half of the ear, closest to the head. Leave room for an electronic ID tag to be placed even closer to the head. Reference the diagram provided for proper tag placement.

Never wound the ear

The primary goal is to apply the tag without tearing the ear. It sounds simple, but causing harm to the ear happens quite often. You might catch a glimpse of the tag as the animal leaves the chute, but looks can be deceiving. The reality is that you tore the ear slightly when you inserted the tag. It's easy to do without the right tools. Those applicators with stationary pins are tricky to get out of the ear without a scratch or rip.



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Effect of an Organic-Certified Treatment (Optimum UterFlush) for Toxic Puerperal Metritis on Cure and Reproductive Performance of Dairy Cows

The objective was to evaluate the efficacy of an organic-certified product (Optimum UterFlush, Van Beek Natural Science) on the treatment of toxic puerperal metritis (TPM) in cows in an organic dairy farm. Evaluation included clinical cure, survival, and reproductive performance. The TPM was defined as an abnormally enlarged uterus and fetid watery red-brown vaginal discharge, associated with systemic illness and fever (rectal temperature $> 39.5^{\circ}\text{C}$), within 12 d postpartum. Cows diagnosed with TPM ($n = 220$) were randomly assigned to 2 intrauterine treatments (every other day for a total of 3 treatments): 1) Control (CON) = 200 mL of Povidone iodine diluted in 2 L of distilled water ($n = 113$) and 2) UterFlush (UF) = 3.75 mL diluted in 116.25 mL of distilled water ($n = 107$). All treated cows received hypertonic solution (500 mL of 25% calcium borogluconate IV) and oral aspirin (5 boluses/d). Outcome variables for treatment efficacy included fever and presence of fetid vaginal discharge at d 6 and 14 after diagnosis, survival at d 6, 14, and 30, and reproductive performance. Control variables were parity, BCS at enrollment, and calving season. Logistic regression and ANOVA were used for the analyses (PROC GLIMMIX and PROC GLM, SAS). The odds of surviving at d 6, 14, and 30 for cows in the UF treatment were 4.7 (95%, CI = 1.4 to 15.8), 2.8 (95%, CI = 1.3 to 6.1), and 3.6 (95%, CI = 1.7 to 7.7) times the odds of cows in the CON treatment. Occurrence of fever at d 6 and 14 was not different between the 2 treatments. Presence of a fetid vaginal discharge at d 6 and 14 was lower in cows treated with UF compared with cows in the CON group [11% vs. 28% ($P < 0.001$) and 1% vs. 8% ($P = 0.017$)]. The odds of breeding until 150 d in milk (DIM) and the time to first breeding were not different for the 2 treatments. The odds of pregnancy at the first breeding and at 300 DIM for cows treated with UF were 2.2 (95%, CI = 1.1 to 4.4) and 2.0 (95%, CI = 1.1 to 3.5) times the odds of cows in the CON group. Days to pregnancy were similar in both treatments. The number of breedings per pregnancy was 1.96 vs. 2.58 for cows in the UF and CON treatments ($P = 0.01$), respectively. Results indicated that cows with TPM treated with Optimum UterFlush had higher odds of recovering and improved reproductive performance, compared with cows treated with Povidone iodine.

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Article 0095, *Animal Health III: Periparturient and Lactation Health*, *J. Anim. Sci.* Vol. 92, E-Suppl. 2/*J. Dairy Sci.* Vol. 97, E-Suppl. 1



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† Perry, et al. The effects of vaccination on serum hormone concentrations and conception rates in synchronized naïve beef heifers. *Theriogenology* 2013;79:200-205.
 ‡ O'Toole D, Miller MM, Cavender JL, Cornish TE. Pathology in Practice. *JAVMA* 2012;241(2):189-191.

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Gestation Table for Cattle

The Probable Date of Birth Listed Below May Vary a Few Days.



DATE OF SERVICE	DATE OF BIRTH	DATE OF SERVICE	DATE OF BIRTH
Jan 1	Oct 8	July 2	April 8
Jan 8	Oct 15	July 9	April 15
Jan 15	Oct 22	July 16	April 22
Jan 22	Oct 29	July 23	April 29
Jan 29	Nov 5	July 30	May 6
Feb 5	Nov 12	Aug 6	May 13
Feb 12	Nov 19	Aug 13	May 20
Feb 19	Nov 26	Aug 20	May 27
Feb 26	Dec 3	Aug 27	June 3
March 5	Dec 10	Sept 3	June 10
March 12	Dec 17	Sept 10	June 17
March 19	Dec 24	Sept 17	June 24
March 26	Dec 31	Sept 24	July 1
April 2	Jan 7	Oct 1	July 8
April 9	Jan 14	Oct 8	July 15
April 16	Jan 21	Oct 15	July 22
April 23	Jan 28	Oct 22	July 29
April 30	Feb 4	Oct 29	Aug 5
May 7	Feb 11	Nov 5	Aug 12
May 14	Feb 18	Nov 12	Aug 19
May 21	Feb 25	Nov 19	Aug 26
May 28	March 4	Nov 26	Sept 2
June 4	March 11	Dec 3	Sept 9
June 11	March 18	Dec 10	Sept 16
June 18	March 25	Dec 17	Sept 23
June 25	April 1	Dec 24	Sept 30

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Vaccination of Cattle and Calves on U.S. Beef Cow/Calf Operations

by Animal and Plant Health Inspection Service, Safeguarding American Agriculture, United States Department of Agriculture

Vaccinations are an integral tool for preventing disease and for maintaining herd health. Vaccinations can improve overall herd health, resulting in decreased death loss and improved productivity. In addition, vaccinations can improve reproductive efficiency by reducing infertility, embryonic and fetal deaths, and abortions. Optimum vaccination programs vary by region, disease exposure, facilities, and other herd-specific variables. Factors such as sanitation, nutrition status, and concurrent infections must also be considered.

While nearly all operations would benefit from some sort of immunization program, vaccination protocols may vary considerably between individual operations. Protocols must be tailored to an operation's specific needs including, perhaps, the eventual marketing plan. The operation's veterinarian is in an ideal position to make optimum recommendations.

The U.S. Department of Agriculture's National Animal Health Monitoring System (NAHMS) conducted the Beef 2007–08 study, which focused on beef cow-calf health and management practices in 24 states.* These major beef cow-calf producing states represented 79.6 percent of U.S. operations with beef cows and 87.8 percent of U.S. beef cows.

One of the goals of the Beef 2007–08 study was to take an in-depth look at vaccination practices on the nation's beef cow-calf operations.

General vaccination practices

Overall, almost 7 of 10 operations (68.9 percent) vaccinated any beef cattle or calves in 2007. Operations with 1 to 49 beef cows were less likely than operations with 50 or more beef cows to vaccinate any beef cattle or calves.

Percentage of Operations that Vaccinated any Beef Cattle or Calves by Herd Size

	1-49	50-99	100-199	200 or More	All Operations
Percent	Percent	Percent	Percent	Percent	Percent
	59.4	86.6	95.9	92.1	68.9

Percentage of Operations that Vaccinated any Beef Cattle or Calves by Region

	West	Central	Southeast
	76.3	90.7	59.8

West: California, Colorado, Idaho, Montana, New Mexico, Oregon, Wyoming

Central: Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota

Southeast: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, Virginia

A relatively small percentage of operations vaccinated calves less than 22 days of age (11.7 percent). When calves in this age group were vaccinated, they were vaccinated most commonly against clostridial disease agents. Less than 10 percent of operations vaccinated calves in this age group with any particular vaccine type.

Nearly two-thirds of operations (62.3 percent) vaccinated any calves aged from 22 days to weaning. As with younger calves, the most common vaccination was a 2- or 4-way clostridial vaccine (57.7 percent of operations). Approximately 3 of 10 operations vaccinated calves aged from 22 days to weaning for respiratory diseases such as infectious bovine rhinotracheitis (IBR) or bovine viral diarrhea (BVD) (29.6 and 33.1 percent of operations, respectively). Only 39.6 percent of operations vaccinated any cows for any of the listed diseases.

For cows, the most commonly used vaccine was for leptospira (31.7 percent of operations) followed by BVD (28.1 percent of operations) and IBR (24.6 percent of operations). Less than a third of operations (31.5 percent) vaccinated bulls for any of the listed diseases. Vaccination for BVD and leptospirosis occurred on approximately one of five operations (24.3 and 21.2 percent, respectively).

Percentage of Operations by Type of Vaccine Used and by Cattle Class

Vaccine Type	Calves 1-21 Days	Calves 22 Days Through Weaning	Weaned Replacement Heifers Through Breeding	Bred Replacement Heifers Through Calving	Cows	Bulls
	Percent	Percent	Percent	Percent	Percent	Percent
General (respiratory and/or reproductive)						
Infectious bovine rhinotracheitis, rednose (IBR)	2.1	29.6	19.4	11.9	24.6	18.2
Bovine viral diarrhea (BVD)	3.0	33.1	25.1	13.7	28.1	24.3
<i>Histophilus somni</i>	0.4	16.6	9.3	5.3	7.9	5.5
Respiratory						
PI3V (parainfluenza 3 virus)	2.0	26.6	19.3	11.1	22.6	17.6
BRSV (bovine respiratory syncytial virus)	2.0	25.4	18.1	9.7	21.1	16.2
<i>Pasteurella Mannheimia</i>	1.2	12.6	5.9	3.0	4.5	3.1
Reproductive						
<i>Brucella abortus</i>	NA	6.4	14.8	2.8	1.0	NA
<i>Leptospira</i>	NA	10.5	19.9	15.1	31.7	21.2
<i>Campylobacter (vibrio)</i>	NA	NA	12.6	10.0	19.0	13.3
<i>Tritrichomonas</i>	NA	NA	0.7	0.9	1.0	0.7
<i>Neospora</i>	NA	NA	NA	0.4	0.3	NA
Clostridial						
<i>Clostridium chauvoei</i> (blackleg) and/or <i>C. septicum</i> (malignant edema) and/or <i>C. novyi</i> and/or <i>C. sordelli</i> (2- or 4-way)	8.1	57.7	24.8	8.1	14.5	10.1
(enterotoxemia, overeating)	6.3	33.8	12.2	6.7	11.6	8.2
<i>C. tetani</i> (tetanus)	1.8	17.6	4.7	2.1	5.7	3.6
Digestive						
Rota/Corona	0.9	0.2	1.3	4.8	5.3	NA
<i>E. coli</i>	0.5	0.7	0.9	4.9	5.5	NA
<i>Salmonella</i>	0.4	0.0	0.1	0.5	0.3	0.0
Other						
<i>Anaplasma</i>	0.0	0.0	0.1	0.0	0.2	0.3
John's	0.0	0.0	NA	NA	NA	NA
<i>Moraxella bovis</i> (pink eye)	1.3	10.7	4.9	3.0	4.7	4.9
Wart virus	0.0	0.0	0.8	0.1	0.2	0.0
Any	11.7	62.3	36.7	24.2	39.6	31.5

Summary

Over two-thirds of operations (69.4 percent) vaccinated some cattle or calves. Among the various classes of cattle and calves, calves aged from 22 days through weaning were the animals vaccinated most commonly; 62.3 percent of operations vaccinated some calves in this age group for some disease agent.

While vaccination can be considered costly to an operation, it can also be an effective risk management tool. Often, when a new disease is introduced into a naïve unvaccinated herd, it can have devastating effects on pregnancy, calving, weaning rates and weaning weights. Producers should work with their veterinarians to assess the true risks of disease exposure and the tolerance for risk. Based on that information, they can decide an optimum vaccination strategy for their herd.

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About Animal Health International

Animal Health International, Inc. is the premier animal health company in North America and has been serving the needs of customers for more than 40 years. No other distributor has a broader product offering. Animal Health International represents over 1,500 manufacturers that supply products focused on equine, beef, dairy, poultry and swine as well as companion animals. Animal Health International offers products ranging from vaccines and pharmaceuticals to state-of-the-art equipment.

Animal Health International has direct, long-standing relationships with all major animal health manufacturers. In addition, we offer beneficial niche products from select international, national, regional and local suppliers which provide a unique and specialized breadth of products.

Animal Health International reps are in constant contact with our customers and partners to assure that product needs are met, questions are answered, and important information is shared. Our reps work to become a vital part of our customer's business through building long-lasting relationships and providing outstanding customer service.

At Animal Health International we have the most knowledgeable, consultative, and seasoned sales force in our industry. We pride ourselves in knowing our customer, their industry, and how they make money in their business. Our customers and partners rely on their Animal Health International sales representative to provide them with the latest information on products, programs and protocols that help them maximize their animal health outcomes.

Key features of Animal Health International

- Largest privately-held animal health distributor in North America
- Over 70 distribution centers and sales offices across the U.S.
- 300 Outside Sales Representatives and 200 Inside Sales Representatives (*1,500 employees nationwide*)
- Single source of supply for all animal health products and needs
- Distribute over 80,000 products from over 1,500 manufacturers
- Next-day service to over 90% of our customer base
- **Segments serviced include:**
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 - Vaccines and Biologics • Reproductive and OB Supplies • Grooming and Show Supplies
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Our proprietary product lines include:

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