



Suggested Animal Husbandry Vaccination and De-worming Protocols

Beef Cattle

Calves at Birth:

Product	Purpose	Notes
Intranasal Viral	3-way respiratory virus vaccine for IBR, PI3, BRSV	Used to protect against viruses later in life
Clostridial CD	Prevention of overearer's disease in young calves caused by clostridial types C & D	This is chosen over a full 7-way clostridial vaccine. Research shows calves struggle to process and use a full 7-way vaccine.

Calves at Turnout:

Product	Purpose	Notes
Respiratory Viral coverage	IBR, PI3, BVD 1 & 2, BRSV coverage (Can include bacterins for Mannheimia etc.)	We recommend the use of the intranasal paired with BVD viral vaccine or 5-way respiratory viral vaccine
Blackleg/7-way	A full 7-way clostridial vaccine is appropriate at turn-out	A full 7-way clostridial vaccine is appropriate at turn-out. Use a 7-way with tetanus for banding calves.
Pinkeye Vaccine	Recommended options include autogenous products, gram negative coverage or subunit vaccines	
Fly Control	We recommend a variety of products including pour-ons, back-rubbers and fly tags.	We strongly recommend rotating between product classes; abamectins, pyrethrins and organophosphates
Long acting dewormer (optional)	We prefer long acting injectable dewormers to promote weight gain in calves	
Calf suckling implant	When appropriate based on program and purpose, calf suckling implants can improve growth	Not recommended for bull calves intended for breeding



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Cows at Turnout:

Product	Purpose	Notes
Modified Live 5-way Respiratory Vaccine with Vibriosis and Leptospirosis	Boosting the immunity of IBR, PI3, BRSV, BVD 1 & 2 in the cow and helping to prevent reproductive/abortive diseases with vibriosis and leptospirosis.	Cattle naive to a modified live should be given a killed if they are close to breeding. Avoid modified live vaccines in pregnant cows.
Fly Control	We recommend a variety of products including pour-ons, back-rubbers and fly tags.	We strongly recommend rotating between product classes; abamectins, pyrethrins and organophosphates

Calves at Weaning: 1 or 2 rounds based on herd program

Product	Purpose	Notes
Respiratory Viral coverage	IBR, PI3, BVD 1 & 2, BRSV coverage including bactrins for pneumonia	We recommend the use of the intranasal paired with BVD viral vaccine for round one with a 5-way modified live respiratory viral vaccine for round two or just a 5-way modified live respiratory vaccine for one round
Blackleg/7-way	A full 7-way clostridial vaccine is appropriate at one round	A full 7-way clostridial vaccine is appropriate in one round. Use a 7-way with tetanus for banding calves.
Pinkeye Vaccine or Gram negative coverage	Recommended options include autogenous products, gram negative coverage or subunit vaccines	
Lice Control	Here we recommend pour-on products	May be included in a full de-worming pour-on
De-wormer	We recommend an injectable de-wormer or a topical that also includes lice protection	
Calf implant	When appropriate based on program and purpose, calf sucking implants can improve growth	Avoid implanting replacement heifers or bulls designated for breeding.



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Cows at Pregnancy Examination:

Product	Purpose	Notes
Killed 5-way Respiratory Vaccine with Vibriosis and Leptospirosis	Boosting the immunity of IBR, PI3, BRSV, BVD 1 & 2 in the cow and helping to enhance colostrum and prevent abortive diseases	Avoid modified live vaccines in pregnant cows.
Blackleg/7-way	A full 7-way clostridial vaccine is appropriate	Boosting a 7-way in cows at pregnancy examination can enhance colostrum quality
De-wormer	We recommend an injectable de-wormer or a topical that also includes lice protection	
Scours Vaccination	Optional based on herd management	Make sure to use per label in cows and heifers

Replacement Heifers Before Breeding:

Product	Purpose	Notes
Killed 5-way Respiratory Vaccine with Vibriosis and Leptospirosis	Boosting the immunity of IBR, PI3, BRSV, BVD 1 & 2 in the cow and helping to enhance colostrum and prevent abortive diseases	Avoid modified live vaccines in pregnant cows.
Brucellosis Vaccination	Bangs/OCV/Calf-hooding needs to take place between 4-12 months of age	Completed by your accredited veterinarian
Pelvic Measurement and Reproductive Tract Scoring	This is a great tool to remove heifers with abnormal pelvic measurements that could lead to calving difficulties and heifers with poor reproductive or no reproductive tracts	This is a great time to also apply genomic testing to your potential replacements.

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Dairy Cattle

Product	Purpose	Notes
Intranasal Viral	3-way respiratory virus vaccine for IBR, PI3, BRSV	Used in the first 3-7 days of life - optional based on program
Oral scours at birth	E.coli, rotavirus and coronavirus prevention	Optional based on program, given within the first 12 hours
Respiratory Viral coverage	IBR, PI3, BVD 1 & 2, BRSV coverage including bactrins for pneumonia	Given at 3 to 6 months of age and booster 3-4 weeks after Given pre-breeding Given (Killed form) annually during the dry period
Blackleg/7-way	A full 7-way clostridial vaccine	Given at 3 to 6 months of age and booster 3-4 weeks after Given at pre-breeding Given pre-calving Given annually in the dry period
E. coli mastitis Coverage		Given 6 weeks prior to calving (heifers) Given 3 weeks prior to calving (cows and heifers)
Vibriosis & Leptospirosis		Given pre-breeding Given annually during the dry period
De-worming and Lice prevention	Based on region and program	Should be managed per system at all life stages. Lice are a bigger problem based on close contact systems.

Note: Dairy cattle being used as nurse cows for calves have fewer restrictions than cows producing milk for human consumption.

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Swine:

Breeding Females: Show Setting

Product	Purpose	Notes
Leptospirosis/Parvovirus/Erysipelas		Give at 5 weeks pre-breeding (Gilts) 2 weeks pre-breeding (Gilts & Sows)
De-worming	Based on the individual herd program	Give at 5 weeks pre-breeding (Gilts) 2 weeks pre-breeding (Gilts & Sows) 2 weeks pre-farrowing (Gilts & Sows)
E. Coli		Give at 5 weeks pre-farrowing (Gilts) 2 weeks pre-farrowing (Gilts & Sows)
Influenza	Optional based on herd exposure and program	3 weeks pre-farrowing (Gilts & Sows)

Boars:

Product	Purpose	Notes
Leptospirosis/Parvovirus/Erysipelas		Give at On arrival Then every 6 months
De-worming	Based on the individual herd program	Give at On arrival Then every 6 months
Porcine Respiratory and Reproductive Syndrome (PRRS)	Recommended locally	Give at On arrival Then every 6 months



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Home-Raised: Piglets

Product	Purpose	Notes
Processing Protocols	Iron Injection Injectable Antibiotic Castration Identification	At 12 – 24 hours of age
Processing Protocols	Based on the product – May add PRRS here	At 7-10 days old
Circovirus	Weaning	3-4 weeks of age
Influenza		Give at 4 to 6 weeks of age 7-9 weeks of age
Mycoplasma/Erysipelas		Give at 4 to 6 weeks of age 7-9 weeks of age

Purchased Pigs:

Product	Purpose	Notes
Circovirus	Monitor prior vaccination status	1 to 2 weeks after arrival
Influenza	Monitor prior vaccination status	3 to 4 weeks after arrival
Mycoplasma/Erysipelas	Monitor prior vaccination status	3 to 4 weeks after arrival
De-worming	Based on the individual herd program	3 to 4 weeks after arrival



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Small Ruminants: Sheep, Goats and Camelids

Product	Purpose	Notes
CD&T	Clostridial diseases (Over-eater's) C & D and Tetanus	
Fecal Evaluation	Look for parasitic infestations and treat them with appropriate tailored products. See FAMACHA	Due to significant de-worming resistance issues in small ruminants, we recommend that herds and groups be fecal evaluated and de-wormed based on the fecal results if needed.
Optional Vaccinations	For additional contagious diseases	These diseases and vaccinations should be tailored per herd and with the advisement of your veterinarian

CD &T vaccinations should be done at 3-4 weeks of age, 6-8 weeks of age and 10-12 weeks of age and annually after that. Make sure males have two rounds of vaccination before castration or banding.

Horses:

Adult Horses & Foals:

Product	Purpose	Notes
Eastern / Western Equine Encephalomyelitis (EEE/WEE)	Neurologic virus	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk
Rabies	Should be administered via a veterinarian	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk
Tetanus	Any wound or exposure of dirt to an open wound warrants a booster	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk



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West Nile Virus	Mosquito/vector borne	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk
Equine Herpesvirus (EHV-1 and EHV-4)	Optional based on individual risk	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk
Equine Influenza Virus	Optional based on individual risk	Initial 2 dose series 3-4 weeks apart with boosters every 6 to 12 months based on individual farm and animal risk
<i>Coggins Testing (Equine Infectious Anemia)</i>	<i>Consult your veterinarian for equine passport options and testing</i>	<i>Annually or as needed for transport</i>

Foals should receive the bolded vaccinations at 4 to 6 months, a second round 3-4 weeks later and again at 10 to 12 months. Non-bolded vaccinations are again based on risk, region, and travel. Pregnant mares have specific program needs and should be tailored through your veterinarian.

Horse De-worming Notes:

Product	Purpose	Notes
Ivermectin Based	Kill of bot eggs after summer	After the first or second hard frost – approximately November.
Fecal Egg Counts	Used to determine parasitic load and type. AAEP recommendations followed	Choose appropriate dewormer and timing.
<i>Foals</i>	<i>Tailored for individual animals and farms</i>	<i>Typically alternating de-wormers every 2 months until a year of age.</i>

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Canine:

Product	Purpose	Notes
Distemper virus/Parvovirus/ Adenovirus/Parainfluenza virus (DA2PP)	Note maternal antibody presence in puppies	Puppies should receive doses at 6-8 weeks of age, 8-10 weeks of age and 12-14 weeks of age with three rounds concluding after 14 weeks of age.
Rabies	Should be administered via a veterinarian	Puppies should receive their first round at 12 weeks of age (or older), again at one year and based on the product annually or every 3 years after that.
Bordetella (Kennel Cough)	Oral or Intranasal are acceptable	Puppies at 12 weeks of age or older that will be in or near groups of other dogs should receive. Vaccinate annually after that.
Leptospirosis	Zoonic disease (can be transmitted between animals and people)	Leptospirosis should be given in the second and third round of puppy vaccinations and every 6 to 12 months after.
Lyme Vaccine	Regionally related	Two doses give 3 weeks apart (12 weeks or older to start series) and annually after.
Crotalus (rattlesnake)	Can delay signs briefly while seeking medical attention	Two doses give 3 weeks apart (12 weeks or older to start series) and annually after.
Heartworm prevention	Only given to puppies 6 months and young or dogs on a current preventative or tested negative	Consult your veterinarian for product options and choices for your vet.
Intestinal Parasite de-worming	Hookworms Roundworms Tapeworms Whipworms	Recommended pets are on a monthly treatment or have an annual fecal run based on risk factors.
Flea, Tick & Mite prevention		Recommended pets are on a monthly treatment and monitored
Spay or Neuter	Based on veterinarian recommendations with breed considerations	6 months at the earliest



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Cats:

Product	Purpose	Notes
Rabies	Should be administered via a veterinarian	Kittens should receive their first round at 12 weeks or older and annually after
Feline viral rhinotracheitis, calicivirus, panleukopenia (FVRCP)	Should be administered via a veterinarian	Kittens should receive doses at 6-8 weeks of age, 8-10 weeks of age and 12-14 weeks of age with three rounds concluding after 14 weeks of age.
Feline leukemia (FeLV)	Oral or Intranasal are acceptable	FeLV should be given in the second and third round of kitten vaccinations and every 12 months after.
Heartworm prevention		Consult your veterinarian for product options and choices for your vet.
Intestinal Parasite de-worming	Hookworms Roundworms Tapeworms	Recommended pets are on a monthly treatment or have an annual fecal run based on risk factors.
Flea, Tick & Mite prevention		Recommended pets are on a monthly treatment and monitored
Spay or Neuter		6 months of age

Rabbits & Poultry:

Poultry do have at home vaccination options for Marek's disease, but with volume purchases needed this is best done at the hatchery and have chick vaccinated to completion on request. Some options include Marek's, Newcastle disease and infectious bronchitis, Laryngotracheitis, and Avian encephalomyelitis and fowl pox.

Rabbit Hemorrhagic Disease Virus type 2 (RHDV2) is becoming an issue in the United States and regular vaccination is becoming recommended. We also recommend using biosecurity protocols and reducing exposure of unvaccinated rabbits to other rabbits to avoid RHDV2.