



ANIMAL CARE PROTOCOL RECORD KEEPING BOOK

Compiled for Pennsylvania
dairy farm families by:



CENTER FOR
Dairy EXCELLENCE

Veterinarian Review Three-Year Sign-Off

FACILITY INFORMATION YEAR _____

Facility Contact
Name _____ Phone _____
Facility Name _____
Address _____
City _____ State _____ Zip _____

VETERINARIAN INFORMATION
Veterinarian
Name _____ Phone _____
Clinic Name _____
Address _____
City _____ State _____ Zip _____

HERD HEALTH PLAN
Signature _____ Date _____

DRUG TREATMENT RECORDS
Signature _____ Date _____

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VETERINARIAN-CLIENT-PATIENT RELATIONSHIP

I hereby certify that a valid Veterinarian-Client-Patient Relationship (VCPR) is established for the above listed owner and will remain in force until canceled by either party.

"Upon execution of this Agreement and the establishment of the VCPR, Producer, on behalf of himself and his present or past legal representatives, predecessors, successors, assigns, agents and heirs, hereby releases and forever discharges Veterinarian from any and all claims, actions, disputes, damages or demands, at law or in equity, that Producer could or may bring in regard to Producer's participation in, or disqualification from the FARM program. Producer expressly waives any right or claim of right to assert here after that any claim in such regard has through ignorance, oversight or error, been omitted from the terms of this Agreement."

"In addition, upon execution of this Agreement and the establishment of the VCPR, FARM, on behalf of itself and its present or past legal representatives, predecessors, successors, assigns, agents and affiliates, hereby releases and forever discharges Veterinarian from any and all claims, actions, disputes, damages or demands, at law or in equity, that FARM could or may bring in regard to Veterinarian's participation in the VCPR; or Producer's participation in, or disqualification from the FARM program. FARM expressly waives any right or claim of right to assert hereafter that any claim in such regard has through ignorance, oversight or error, been omitted from the terms of this Agreement."

VETERINARIAN
Signature _____ Date _____

FACILITY REPRESENTATIVE
Signature _____ Date _____

VETERINARIAN
Signature _____ Date _____

FACILITY REPRESENTATIVE
Signature _____ Date _____

VETERINARIAN
Signature _____ Date _____

FACILITY REPRESENTATIVE
Signature _____ Date _____



Background on National FARM Program

Open to all U.S. dairy farmers, co-ops and processors, the National Dairy FARM (Farmers Assuring Responsible Management) Program works with dairy farmers, the producer community and industry partners to show customers and consumers that the dairy industry is taking the very best care of cows and the environment, producing safe, wholesome milk and adhering to the highest standards of workforce development.

Created by the National Milk Producers Federation in partnership with Dairy Management Inc., FARM helps ensure the success of the entire industry by demonstrating that U.S. dairy farmers are committed to producing the best milk with integrity. Most of the milk handlers, including dairy cooperatives and independent processors, in Pennsylvania require the dairy farm families supplying their markets to participate in the National FARM Program.

The program includes four program “areas” which it uses to work with dairy farmers, cooperatives, processors, and industry partners to hold the industry to the highest standards. Those four silos are Animal Care, Environmental Stewardship, Antibiotic Stewardship, and Workforce Development. The Animal Care Program is the cornerstone FARM Program in which all dairy farm families are required to participate.

The FARM Program provides best practices that farmers must follow for every cow and calf on the farm. Those practices are outlined in the SOP sections of this book. The FARM Program also includes on-farm evaluations by trained evaluators and third-party verification by a qualified third-party entity who evaluates a statistically significant percentage of farms each year to ensure the integrity of the program.

Participation in the National FARM Program requires a close relationship with your veterinarian and stewardship and education of your employees, both those who are family and non-family. It also requires you to keep records of the treatments you are administering to your herd to ensure protocols are being followed and any withdrawal periods are met.

More information about the National FARM Program can be found at nationaldairyfarm.com. You should also contact your cooperative or milk handler representative to learn more about the program and its expectations for your farm.

How to Use This Book

This book was compiled by the Center for Dairy Excellence, using resources from the National FARM Program, AllTech, the American Association of Bovine Practitioners, Mid-Maryland Dairy Veterinarians and Valley Mobile Veterinary Services. Its intent is to help Pennsylvania dairy farm families comply with National FARM requirements associated with record keeping. One book should cover three program years.

1. On the front cover of the book is the Veterinarian Client Patient Relationship Agreement form which every farm must complete to comply with National FARM guidelines. Every farm must have this form completed by their veterinarian each year to be in compliance. Completing the form on the front cover of this book meets that requirement.
2. Examples of SOPs (standard operating protocols) for areas associated with the National FARM Program are included on pages 4 through 18. Please note, these are intended to serve as examples only and do not alone satisfy FARM standards. Along with these examples are blank spaces for you to fill in specific protocols for your farm after consulting with your veterinarian. **You must clearly outline the specific protocol you follow in each area to comply with FARM requirements.** The person assigned to be responsible for each herd management area should add their name and signature to the page of that respective protocol area.
3. On pages 2 and 3 is information regarding training family and non-family employees on animal care practices. Farm families should read over this area and request additional papers from their cooperative or milk handler if they do not have enough space in the section to include all employees. Fact sheets and other resources, including training videos, can also be found in the Training Resources and Education Library of the National FARM website at nationaldairyfarm.com. Each family member or non-family member employee should provide documented yearly training.
4. Pages 23 through 29 are intended for dairy farm families to record daily medicine usage. The FARM 5.0 guidelines require all farms to have written records of the medicine they administer to animals in their dairy herd. This log is modeled after the Daily Treatment Sheet provided by the National FARM Program. You can transfer the information to individual animal records that are kept either manually or through a computer-based system.

Completing all the sections of this book can help you comply with National FARM requirements. You can share this with your FARM evaluator when they visit your farm. *It is important to note that any reference to a specific treatment is not an endorsement of that treatment, but rather is used for example purposes only.*

THE BOVINE PHYSICAL EXAM – ABNORMAL OBSERVATIONS

- Both the National FARM and Dairy Quality Assurance Programs are focused on ensuring dairy cattle are maintained in a manner resulting in safe products for the consumers.
- These guidelines are intended to ensure proper administration of medicine, which will prevent residues and carcass defects (bruises)

When Treating Animals

Important Things to Remember:

- Always give medicine in the neck, in front of the shoulder – SQ rather than IM whenever allowed by label, including hormones.
- **DO NOT INJECT MORE THAN 10 CC PER INJECTION SITE;** more than 10 cc of any drug may extend the withdrawal times and may cause residues
- Consider needle size
 - Use 18-gauge needles (green) for SQ and IM injections with thin fluids and with calves (regardless of viscosity of fluids!)
 - Use 16-gauge needles (white) for SQ and IM injections with thick liquids, like Oxytetracycline, Exenel®, and Penicillin.
 - Use 14-gauge needles (brown) for IV injections.
- Change needles after every cow
 - Prevents dullness and burrs on needles
 - Ensures cleanliness on injection site
 - Prevents disease spreading
 - Don't put a used needle back into product bottle
- Use disposable syringes
 - Do not disinfect (alcohol, bleach) if using the syringe for modified-live vaccines
- Record the following information
 - Animal identification
 - Date of treatment
 - Drug used (serial number and expiration date optional)
 - Amount used
 - Location of injections (and amount in each site)
 - Milk and Meat withhold

ABBREVIATIONS FOR TYPES OF APPLICATIONS:

- IM – intramuscular
- SQ – subcutaneous
- IV – intravenous

HEAD

- General attitude – droopy ears, eyes sunk in
- Odor of breath – sweet, rotten
- Swellings around jaw, neck, brisket, joints

RECTAL TEMPERATURE

- Normal temperature 101.5-102.5
 - Varies with time of day (morning is more accurate) and outdoor temperature (falsely elevated in summer when hot outside or in sun)
 - Increases with stress or exercise (getting the cow up or agitated)

HEART AND LUNGS

- Heart rate and character
 - Normal heart rate 48-80 beats per minute (average 60)
- Breathing rate and character
 - Normal respiratory rate 24-48 (average 30)
 - Nasal discharge, coughs, panting, forceful breaths

ABDOMEN

- Abdominal pain
 - Withers pinch/grunt – Push down hard on the cow's withers
 - o Cow will bend backbone if no pain
 - o Cow will not bend backbone or will grunt if painful
 - o While pinching withers, check for air under skin
- Stiff walk

GASTROINTESTINAL TRACT – stomach and intestines

- Pings (note side, size) – can indicate a LDA, RDA/RTA, normal gas in intestines, cecal torsion
- Lack of rumen fill – left side and flank sunken
- Lack of rumination OR cud chewing
- Manure – diarrhea, absent, dry, bloody, mucus
- Rumen bloat

UDDER

- The quarter – hardness, redness, swelling, heat, edema, painful to touch, gangrenous (black and blue)
- The milk – flakes, clots, stringy, watery, bloody, CMT results
- Regional lymph nodes – swelling
 - Two lymph nodes located at top of rear quarters

REPRODUCTIVE TRACT

- Vulvar swellings and/or tears
- Vaginal/uterine discharge – odor, consistency
- Retained placenta
- Cycling information – last heat cycle, breeding date

FEET/LEGS

- Lameness, swellings, ulcers/abscesses

YEAR 1: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)
YEAR 2: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)
YEAR 3: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)



The National FARM Program requires that all farm employees sign a Dairy Cattle Care and Ethics Agreement annually. Any family or non-family employee with stockmanship, calf care, non-ambulatory, euthanasia or fitness to transport animal care responsibilities needs a training record for those specific responsibilities. Below are forms for four employees to sign the agreement and acknowledge trainings they have received. For additional employees, either copy this page or download the "Dairy Animal Care and Ethics Agreement and Training" template found at nationaldairyfarm.com.

Dairyman/Family

EMPLOYEE NAME _____

FARM NAME _____

DAIRY CATTLE CARE ETHICS AGREEMENT

"I confirm my commitment to the highest standards of animal care by hereby agreeing that proper animal care is the responsibility of every individual who is around animals, including me. I understand that animal abuse, neglect, harm and mishandling are unacceptable and will not be tolerated. I will immediately report any signs of deliberate animal abuse, neglect, harm or mishandling to a supervisor or other individual(s) responsible for enforcement of proper animal care. Everyone over 18 years old on the farm with animal care responsibilities must sign a Dairy Cattle Care and Ethics Agreement EVERY year."

SIGNATURE _____ DATE: ____/____/____

SIGNATURE _____ DATE: ____/____/____

SIGNATURE _____ DATE: ____/____/____

DAIRY CATTLE CARE TRAINING RECORD

"All employees (family or non-family) over 18 years old need to have documented training in stockmanship. Any employees (family or non-family) who have responsibilities in calf care, euthanasia, handling down cows, or determining if animals are fit to transport, need to document annual trainings as well."

DESCRIPTION OF TRAINING: _____

SIGNATURE _____ DATE: ____/____/____

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Family or Non-Family Employee (circle one)

EMPLOYEE NAME _____

FARM NAME _____

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EXAMPLE CALF CARE PROTOCOLS

NEWBORN CALF CARE

Move to individual clean dry pen

- Provide ample, clean, dry bedding
- Use clean dry calf blankets if temperatures below 50 degrees F. Do not take the blanket on and off.
- Identify calf with permanent identification.
- Provide feed and water by day 3.

Dip navel with 7% Iodine or other product labeled as calf navel dip

- **DO NOT** use teat dip – the emollients promote bacterial growth

Provide good quality colostrum within 6 hours of birth

- 10% of body weight
- Document quality or evidence of successful passive transfer
- Thaw frozen colostrum in warm water
- If using colostrum replacer, ensure providing enough quantity (typically 2 bags)

Follow individual farm protocol for any vaccines at birth

- Examples could include respiratory (intranasal) products or diarrheal (oral) products
- Respiratory diseases – IBR, PI3, Pasteurella
- Diarrheal diseases – E. coli, Rota virus, Corona virus

Place a clean calf blanket on the calf as soon as possible in temperatures under 50 degrees F.

- Do not take calf blankets on and off. It is best to leave the blankets on through weaning depending on temperatures.

Identify calf with permanent identification!!

Begin providing grain and water within first 3 days of life

WEANING/POST-WEANING CARE

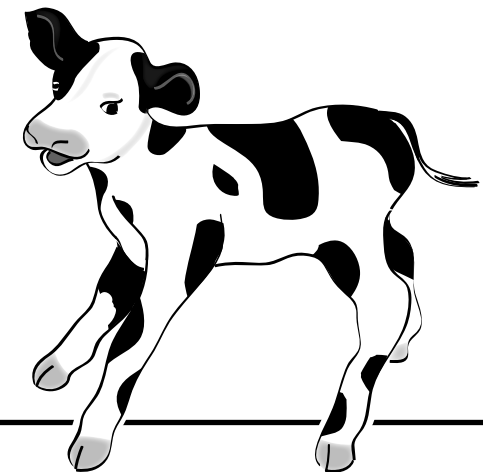
Weaning

- Calves should be weaned no earlier than 4 weeks.
- Calves should be eating 2-3 lbs of grain per day for 7 days.
- Ensure disbudding is complete prior to 8 weeks.
- Follow individual farm protocol for any vaccine protocols.
 - Examples should include respiratory and reproductive vaccines
- Check for extra teats

*For herds with respiratory issues post-weaning,
this is a reasonable time to give intranasal vaccines.*

Disbudding Procedures

- Your veterinarian should work with you to develop written protocols for disbudding that work best within your farm management system.
- Disbudding should be completed when the calf is young and should be performed at the youngest age possible. Disbudding should be completed within the first 8 weeks of life.
- Acceptable methods for disbudding include application of caustic paste or an electric/gas iron to destroy the horn producing tissue.
- The application of local anesthetics to minimize the need for excessive restraint should be utilized, based on what your veterinarian recommends.
- The use of caustic paste is less effective and discouraged after the calf is 2 weeks of age and ideally should be applied within the first few days of life.
- If using an iron, it must be plugged in/turned on for at least 10 minutes prior to use to ensure proper temperature. The iron should be applied to the horn bud until a copper ring is visualized or complete separation of skin and horn bud.
- Fly spray will be applied during fly season. Waiting until after fly season is over is not an acceptable reason to delay disbudding.
- Calves should be restrained for disbudding in a way that minimizes stress and the risk of injury to the animal and the operator. Employees should be trained on safe, low stress handling and be provided the time and resources necessary to achieve this type of handling.
- The use of a squeeze chute, tilt table, calf cart or halter may accomplish proper head restraint.



DAIRY/ FARM SPECIFIC CALF CARE PROTOCOLS:

Colostrum Feeding *should be 10% birth weight, farm should measure quality, and given in a timely manner (within 6 hours) or evidence of successful transfer of passive immunity.*

Colostrum Management: Amount: _____ How soon after birth: _____

Method for Moving Calf to Hutch: Carrying Walking Vehicle

Delivery Method: _____

Quality Determination: Bacteria Count Refractometer Colostrometer

Visual Observation: _____

Other: _____

Permanent ID

Milk Feeding: Grouped Individual Amount: _____ Frequency: _____

Feed and Water Provided by Day 3: Amount: _____ Frequency: _____

Age at Weaning: _____

Pain Mitigation:

Castration

Branding

REMINDER: *Administration of pain medication needs to be recorded in the permanent treatment record.*

SPECIFIC DISBUDDING PROTOCOLS:

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

Type of pain medicine used: _____

Method of Disbudding: _____

Age at Disbudding: _____ Person Responsible: _____

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

Type of pain medicine used: _____

Method of Disbudding: _____

Age at Disbudding: _____ Person Responsible: _____

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

Type of pain medicine used: _____

Method of Disbudding: _____

Age at Disbudding: _____ Person Responsible: _____

EXAMPLES OF VACCINATION AND PREVENTATIVE TREATMENT PROTOCOLS

A vaccination program is something developed specifically for each dairy farm. You should work with your veterinarian to determine what the vaccination program works best for your dairy cows and heifers. There are many vaccine products available for many different diseases. These are general guidelines.

HEIFERS 4 - 12 MONTHS

- Respiratory disease vaccines – IBR, BVDV, BRSV, PI3, Mycoplasma, Pasteurella, H. Somnus
- Reproductive disease vaccines – Leptospirosis (multiple serovars)
- Clostridium disease vaccines – Tetanus, Blackleg
- Many vaccines contain combinations of these diseases
- Ensure proper storage of vaccines in a working refrigerator with a thermometer.
- Do not expose vaccines to sunlight.
- Once mixed, modified-live vaccines must be used within the hour.
- Booster vaccines based on farm protocol and vaccine labels.
- Monitor weight and height growth
- Monitor for signs of parasitism

YEARLING HEIFER CARE

- Booster vaccinations for respiratory and reproductive diseases as dictated by farm protocol. Examples of diseases are listed above.
- Calf scour prevention vaccine – E. coli, Rota virus, Corona virus, Clostridium
- Monitor weight and height growth
- Monitor for signs of parasitism

COW CARE

- Booster vaccinations for respiratory and reproductive diseases as dictated by farm protocol. Examples of diseases are listed above.
- Mastitis disease vaccine – E. coli
- Ensure preventative hoof trimming 1-2 times per year or more, depending on hoof growth and/or lameness.

DRY COW/HEIFER CARE

- Follow farm dry cow treatment and teat sealant protocol.
- Booster vaccinations for respiratory, reproductive, calf scour prevention, mastitis diseases as dictated by farm protocol. Examples of diseases are listed above.

General Vaccine Information

- There are many vaccination programs available. Each farm should have a program tailored to their individual farm operation. Such programs should have a basic vaccination program and additional specific vaccines for specific problems diagnosed on each individual farm. Speak to your veterinarian about specific programs.
- There are many good vaccines on the market. The examples provided are only suggestions and many others are available!
- Handle vaccines with care. Keep vaccines refrigerated (not frozen)
- Follow label directions.
- If you are raising bulls for bull studs, DO NOT vaccinate unless the stud requests specific vaccines. Keep the bulls isolated so that they are not exposed to other animals.

SPECIFIC HERD VACCINATION PLAN

	Age	Product	Dosage	Route of Administration	Meat Withhold
Calves					
Heifers					
Cows					

YEAR 1: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 2: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 3: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

EXAMPLES OF CALVING AND TRANSITION COW CARE



STAGES OF CALVING

Stage 1. Preparatory (Two to six hours)

The cervix dilates. The cow begins to “nest.” The water sac will rupture at the end of this stage.

What you can do

1. Ensure a clean, dry maternity pen – check progress frequently.
2. Do not move the cow as it gets close to her calving date

Stage 2. Delivery (One hour or less)

The calf enters the birth canal. The cow has abdominal contractions and pushes.

What you can do

1. Reach into cow to assess progress
 - a. Clean the vulva with warm water and soap
 - b. Use a clean rectal sleeve and lots of lubricant
2. Determine the position and presentation of the calf and adjust if possible
 - a. Front legs with feet pads down and head present – *Normal*
 - b. Front legs with no head
 - i. Do not pull until the head is up with the legs
 - c. Back legs and tail with feet pads pointed up
 - i. Calf can be pulled this way
3. Do NOT provide calving assistance too early! This can cause serious problems for the cow and calf.
4. Clean off the newborn calf’s nose. Thump on its chest to stimulate breathing. Sit the calf up to ease breathing and to cough out fluid.
 - a. Dip navel in **7% iodine or other product labeled as calf navel dip** (Do not use teat dip!)
5. **CHECK FOR A TWIN CALF!!!** Re-clean vulva and reach back in to check!
 - a. Most ‘backwards calvings’ will have a twin calf.
6. Evaluate Cow immediately post-calving
 - a. Check vulva and uterus for tears
 - b. Try to get cow up and standing shortly after calving
7. Consider Support Therapies for Difficult Calving
 - Consult Your Veterinarian to discuss specific treatment protocols

When to call the veterinarian

1. Calf is in a presentation that you are unable to manipulate and pull after approximately 1.5 hours
2. Cow is in active labor for more than two to three hours
3. Cow is in active labor but is not advancing (no calf present)

Stage 3. Cleaning (two to twelve hours)

The placenta/afterbirth is expelled. The placenta is considered retained after 12 hours.

What you can do

1. Record the calving in a record book
 - a. Single or twins
 - b. Dystocia with assistance
 - c. Record any medicine administered.

Grade dystocia on a 1-5 scale (5 = difficult)

1	2	3	4	5
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Stage 4. Post-Partum Cows

What you can do

1. Follow Fresh Cow Record Sheet and Flow Sheet for Disease Guidelines
2. Monitor and Record her temperature 1-2 times per day for the first 10 days after calving.
3. Monitor her attitude, appetite, milk production, and manure
4. Call the veterinarian if she is very sick or treatments are not working!

SPECIFIC HERD PROTOCOLS ON CALVING AND TRANSITION COW CARE: _____

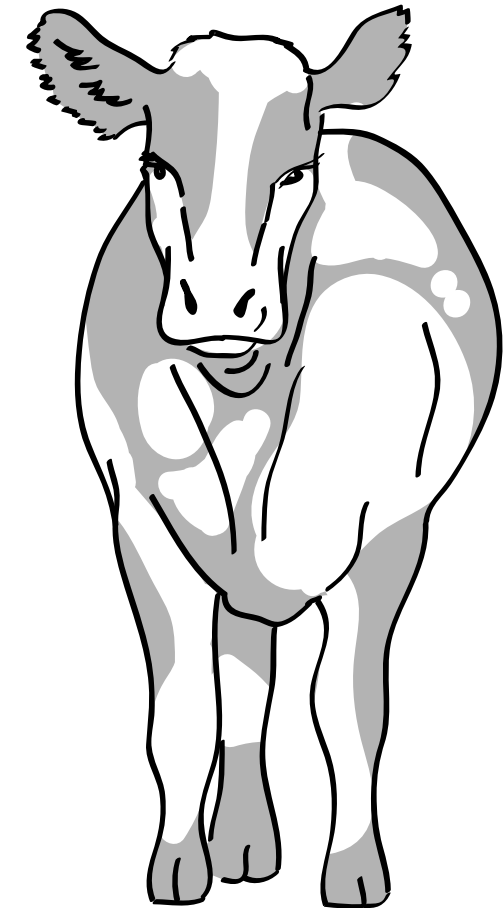
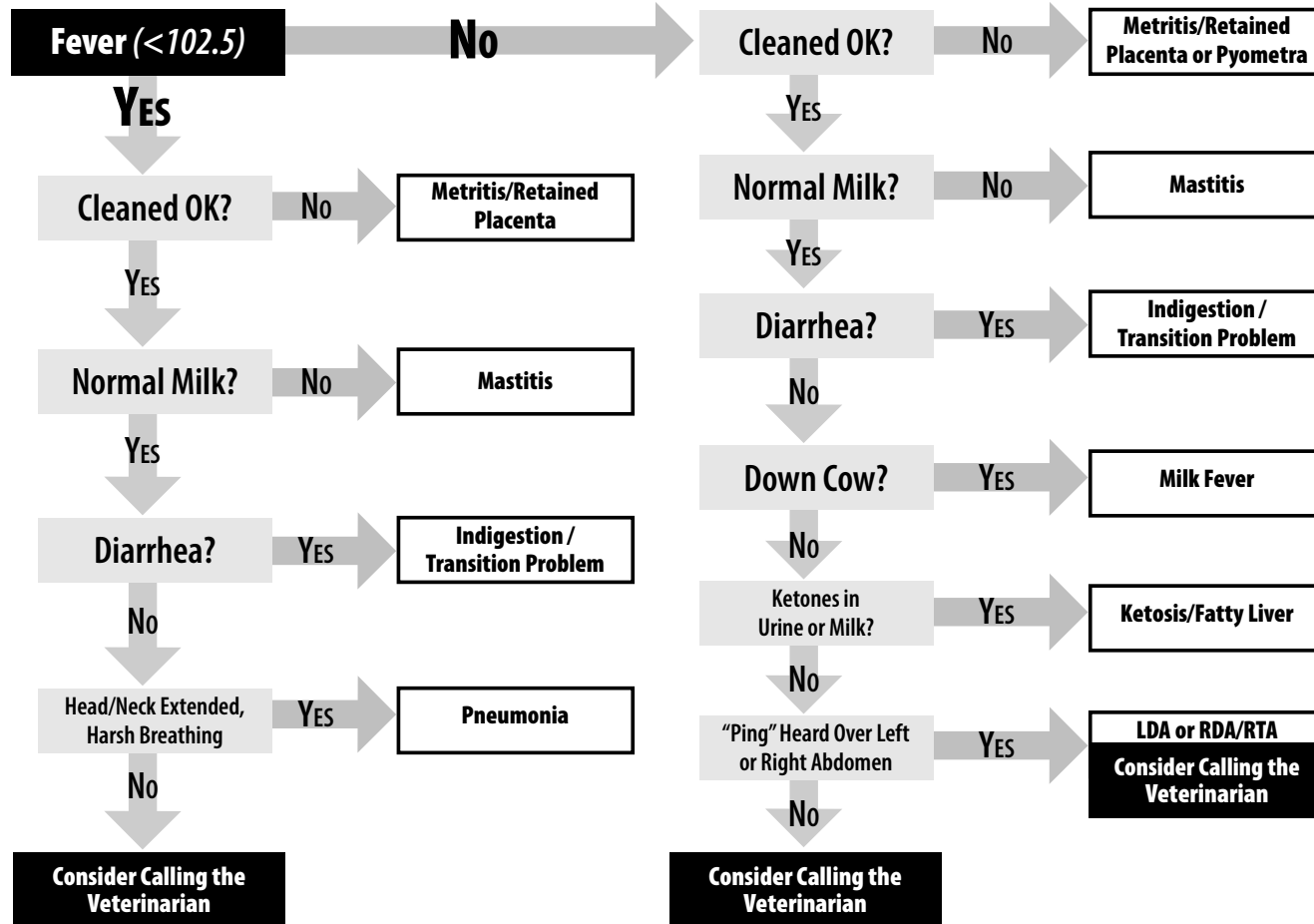
YEAR 1: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 2: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 3: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

Fresh Cow Flow Sheet

– Provided by Valley Mobile Veterinary Service



When to call the Veterinarian

Call the vet if...

- You have never seen a disease like this before, or if this looks like a disease you are used to dealing with but this case is much worse than you have experienced before.
- You have treated the cow according to the written health protocols but she has not improved.
- The treatment protocol for that specific disease leads you to a point where it recommends calling in the veterinarian.
- You are uncertain whether to euthanize or not.

When contacting the vet, have available...

- Approximate age (lactation number), days in milk or days since calving, open or pregnant (and how far along)
- Last few milk weights
- History of problem
- What she is doing now – chewing cud, acting painful, down, breathing hard, etc.
- Current rectal temperature
- What have you done so far – treatments, procedures, etc

DRY COW PROTOCOLS

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES

DRY COW PROTOCOLS

How to Recognize

- Select cows to be dried off and identify as dry/treated
- Confirm pregnancy status
- Separate from lactating herd into a clean comfortable pen
- Monitor udder for signs of mastitis or sickness after drying off

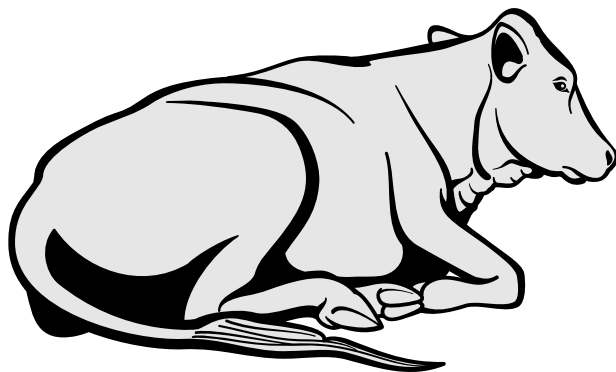
Treatment Protocol Options (Discuss with veterinarian)

- Administer dry cow antibiotic therapy
- Administer internal teat sealant
- Vaccinate against disease
- Administer nutritional supportive therapy

INDIVIDUAL DRY-COW PROTOCOLS (Discuss with veterinarian): _____

When to Call Veterinarian

- Unable to confirm pregnancy
- Abnormal mammary or vaginal discharge



CALF DIARRHEA PROTOCOL

How to Recognize

- Watery, + blood, off color manure (brown, grey, green, yellow)
- Decreased appetite
- Sunken eyes
- Weak, unable to stand
- Determine dehydration status

Dehydration	Demeanor	Eyeball Recession	Skin Tent Duration(s)
<5%	Normal	None	<1
6%-8% (mild)	Slightly depressed	2-4 mm	1-2
8%-10% (moderate)	Depressed	4-6 mm	2-5
10%-12% (severe)	Comatose	6-8 mm	5-10
>12%	Comatose/dead	8-12 mm	>10

Smith, Geof. (2009). Treatment of Calf Diarrhea: Oral Fluid Therapy. The Veterinary clinics of North America. Food animal practice. 25. 55-72, vi. 10.1016/j.cvfa.2008.10.006.

Treatment Protocol Options vary based on severity, duration, and dehydration but include (Discuss with veterinarian):

- Anti-diarrheal medication – Pepto Bismol
- Probiotic paste
- Electrolytes – oral, SQ, or IV
- Fluids – oral, SQ, or IV
- Nutritional support
- Thermal support – extra bedding, shelter from weather
- Ensure proper biosecurity
- Collect sample for diagnostic

INDIVIDUAL PROTOCOLS: _____

When to Call Veterinarian

- Unresponsive to therapy in 24 hours
- Increased number of cases of diarrhea or death
- Need for IV fluid and nutritional support

YEAR 1: TRAINED PERSON (SIGNATURE) _____ (DATE) _____ VET. INITIALS (DATE) _____ YEAR 2: TRAINED PERSON (SIGNATURE) _____ (DATE) _____ VET. INITIALS (DATE) _____ YEAR 3: TRAINED PERSON (SIGNATURE) _____ (DATE) _____ VET. INITIALS (DATE) _____

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES

HYPOCALCEMIA/MILK FEVER

How to Recognize

- Down cow just fresh, may have head tucked into flank
- Cold ears, subnormal temperature
- Staggering cow unsteady on her feet
- Measure urine pH within 48 hours prior to calving (pH strips)
 - Urine pH > 8.5 has almost a 100% chance of developing milk fever

Pre-Treatment

- Take a sample of blood, place in a red top tube, place in a refrigerator

Treatment (Discuss with veterinarian)

- Weak/staggering cow

- Down cow

- Positive response to treatment
 - o Belching, cow moves her head
 - o More regular heart rate and breathing rhythm
 - o Muscle tremors, Defecation/urination or tail twitching
 - o Standing up

When to Call Veterinarian

- Down cow and unable to get a vein for IV Calcium treatment
- Cow does not respond within several hours after IV Calcium treatment
- Down cow has been treated with IV Calcium 2-3 times and cow is still down

KETOSIS/FATTY LIVER

How to Recognize

- Cow 1-2 weeks fresh, can be up to 6 weeks fresh
- Initial high milk production with a gradual decrease in milk production
- Possibly overweight but losing weight, off-feed, dull and lethargic
- Ketone odor on breath, urine, milk
 - o Use urine keto-sticks or milk ketone powder to determine severity of ketosis (dark purple in 10 seconds = ketosis)
 - o Sweet smelling breath
- May stagger, show bizarre behavior
- May lead to a LDA/RDA, so treat early and aggressively!

Pre-Treatment

- Take a sample of blood, place in a red top tube, place in a refrigerator

Treatment (Discuss with veterinarian)

- Supportive therapy (Discuss with veterinarian)

- o + 10 cc B- complex vitamins IV or IM or SQ
- o + CMPK boluses or 1 bottle of calcium
- o + Rumen starters – oral probiotic gels, yeast pills, pumping her stomach

When to Call Veterinarian

- Cow is still off-feed after 2 days of treatment or develops a LDA
- Unable to get a vein for IV dextrose
- Unable to pump stomach

YEAR 1: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE) YEAR 2: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE) YEAR 3: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES

RETAINED PLACENTA/METRITIS

How to Recognize

- Cow 4-7 days fresh with a fever
- Cow has not cleaned completely after 12 hours or at all
- Off-feed, +Ketone odor on breath and urine
- Foul smelling, red watery or yellow chunky discharge from vulva

Possible Treatments (Discuss specific protocols with veterinarian)

- Consider Oxytocin and/or Prostaglandins (lutalyse)
- Gently “tug” on placenta after day 3 at milkings or when oxytocin is given
- If systemically sick (fever, lethargic, off-feed), consider pain relief and anti-inflammatories
- Antibiotic treatment – excenel/naxcel or penicillin
 - Discuss Antibiotic Treatments with Veterinarian
 - See Antibiotic Usage and Withholding Chart on Pages 20-22
- Utilize Support Therapies
 - 10 cc B-complex vitamins
 - Consider hypertonic saline solution and dextrose IVs as treatment options
- **Do not “treat” her uterus with intrauterine compounds – oxytetracycline, chlorhexidine, etc!! You may cause more damage to her uterus than is already present!!**

When to Call Veterinarian

- Cow does not respond to treatment protocol and continues to worsen in severity
- Cow is still off-feed after 2 days of treatment or develops a LDA
- Have her “checked” at next herd check to assess her uterine progress

SPECIFIC HERD PROTOCOLS FOR METRITIS:

LEFT OR RIGHT DISPLACED ABOMASUM

How to Recognize

- Off-feed, Small amounts of pasty feces
- “sprung rib” – last rib on left side may appear to be pushed out of line
- PING on left or right side – high pitched sounds
 - LDA
- Ping found on left side over the last 4 rib spaces or in the fossa
- May be a low LDA
 - RDA
- Large ping found on right side over the rib cage
- Cow very painful and restless, dehydrated, very sick!!
- +Ketone odor on breath and urine
- Check for other “fresh cow” diseases to predispose her to a twisted stomach
 - Ketosis – #1 cause
 - Mastitis or udder sores
 - Tough calving
 - Retained placenta/metrinitis
 - Sore feet/Ulcers
 - Milk Fever

Possible Treatments (Discuss specific protocols with veterinarian)

- Supportive therapy
 - Give pain relief and anti-inflammatories – aspirin or banamine
 - + 10 cc B- complex vitamins IV or IM
 - + CMPK boluses or 1 bottle of calcium SQ
 - + Rumen starters – oral probiotic gels, yeast pills, pumping her stomach
- Do not pump the cow’s stomach on the same day in which the vet is coming to do a surgery. It makes it more difficult to roll her if she was just pumped full of fluids.
 - + Consider dextrose and hypertonic saline solutions as possible treatments.

When to Call Veterinarian – have an extra person around to help please

- LDA Toggle (by rolling her)
- LDA Surgery (by rolling her)
- Follow veterinarian recommendations for post-procedure treatments and care.
- Discuss other treatment with veterinarian

SPECIFIC HERD PROTOCOLS FOR DISPLACED ABOMASUM:

PNEUMONIA

How to Recognize

- Off-feed, down in milk, droopy head/ears/neck
- Increased respiratory rate and/or effort
- Yellow mucus nasal discharge
- May or may not have a fever!
- Hear wheezes, crackles, whistles, congestion in upper long fields with stethoscope
- Best prevented by maintaining ideal temperature and proper ventilation

Possible Treatments (Discuss specific protocols and vaccines with veterinarian)

- Supportive therapy
 - Give pain relief and anti-inflammatories – aspirin or banamine
 - Other treatments – IV dextrose, B vitamins, CMPK boluses, rumen starters/probiotics, hypertonic saline, Lasix/Furosemide
- Allow for plenty of access to water – she will need to drink more!
- Antibiotics
 - Discuss Antibiotic Treatments with Veterinarian
 - See Antibiotic Usage and Withholding Chart on Pages 20-22

SPECIFIC HERD PROTOCOLS FOR PNEUMONIA: _____

YEAR 1: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS (DATE)

YEAR 2: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS (DATE)

YEAR 3: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS (DATE)

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES

Procedures to diagnose and treat mastitis in dairy herd

MILK CULTURING

- Great tool for managing any dairy herd
- By looking at milk sample, you cannot determine which bug is causing mastitis!!
- Why is it important to know the “bug” infecting your cow?
 - o Mastitis can be the leading cause of production losses in a dairy cow’s lactation and possibly even the reason for culling her from the herd.
 - o Management of infected cow
 - Treatment options
 - Culling options
 - Milk quality control (lower SCC, increased production, dipping)
 - Milking order in parlor (milk infected cow last)
- Results in 24-36 hours of getting sample to the clinic!
 - o E.coli (Coliform)
 - o Contagious Staph aureus vs. Non-contagious Staph species
 - o Contagious Strep agalactia vs. Non-contagious Strep species
 - o Mycoplasma cultures go to Penn State (takes about 10 days)

MILK COLLECTION PROCEDURE

1. Wash and dry hands before handling udder. Put on a new pair of protective gloves.
2. Dip teat(s) to be sampled with pre-dip. Allow adequate contact time, then wipe/dry with new paper towel or udder cloth, paying special attention to the teat end.
3. Scrub teat ends with isopropyl/rubbing alcohol – use gauze, cotton ball, or paper towel
 - a. Start at the teat farthest away from you.
 - b. Avoid touching the teat ends with your arm or hand once cleaned
4. Remove the cap from the sterile milk tube and hold the cap with its inner surface turned downward. Hold the tube as close to sideways as possible to prevent contamination falling into tube.
5. Carefully strip some milk into the tube.
 - a. Start with the teat closest to you and finish with the farthest away teat to avoid contamination
 - b. Dip teats after finished collecting sample.
6. If the sample got contaminated (such as letting the milk run off your hand into the tube, touching a teat, cow defecates, etc.), discard the tube and sample and start over again.
7. Label tube with cow identification number/name.
8. Place sample on ice or refrigerate immediately. You can also freeze the samples if they aren’t going to be cultured within two days.

Note: If a mastitic quarter has already been treated with an intramammary product (Pirsue, Today, Quartermaster, Cefalax, etc) or any other intramammary antibiotic treatment, it is best to wait at least 4-5 days before culturing. Once a sample is taken, you can treat the quarter with an antibiotic.

TREATMENTS

- See page 21 of this book for examples of mastitis treatments.
- Consult with veterinarian to determine best treatment for your herd.

SPECIFIC HERD PROTOCOLS FOR MASTITIS DIAGNOSIS AND CULTURING: _____

YEAR 1: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 2: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 3: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES - MASTITIS

Commonly found mastitis organisms

It's important to note that the guidelines for troubleshooting illnesses included in this book are intended to serve as guidelines only. Please work with your veterinarian to outline your own protocols in the "specific herd protocol" sections provided.

COLIFORMS

Characteristics

- Includes *E.coli*, *Klebsiella*, *Enterobacter*
- From the environment – dirty bedding, muddy pens, contaminated teats, teat end lesions
- Watery and/or yellow milk or no milk may be a symptom of coliform. However, the appearance of the sample cannot alone be used to determine the bacteria.
- Animals may be severely ill or down
- Goals of treatment
 - Reduce toxin load and prevent release of more toxins
 - Supportive treatment for cow - Some cows will die despite aggressive therapy
 - Early recognition and aggressive therapy is the key to success!
- Prevention
 - Vaccine helps prevent severity of mastitis and only if used according to label
 - Internal or external teat sealants during dry period

Treatment

- Take a milk culture sample from affected quarter(s)
- Frequent stripping of affected quarter(s) every two hours
 - May be enough treatment if only a mastitis case and not systemically ill!!!!
- Give pain relief and anti-inflammatories and anti-endotoxin relief – (ex: flunixin meglumine or Banamine®)
- Fluid therapy – hypertonic saline, dextrose
- Other supportive treatments – B-complex vitamins, CMPK boluses/bottle, rumen care
- Antibiotics
 - Intramammary antibiotics may or may not be effective in coliform cases
 - Discuss Antibiotic Treatments with Veterinarian
 - See Antibiotic Usage and Withholding Chart on Pages 20-22

ENVIRONMENTAL STREPTOCOCCUS SPECIES

- Includes *Strep. dysgalactiae*, *Strep. uberis*
- From the environment – dirty bedding, muddy pens, contaminated teats, teat end lesions
- May be resistant to intramammary antibiotics and difficult to treat/cure
 - Can be a "recurring" mastitis

ENVIRONMENTAL STAPHYLOCOCCUS SPECIES

- Includes Coagulase-Negative Staph. which are sometimes referred to as skin organisms.
- From the environment – dirty bedding, muddy pens, contaminated teats, teat end lesions
- Tend to respond well to intramammary antibiotics

STAPHYLOCOCCUS AUREUS

- Contagious mastitis
 - Lives and grows in the teat and udder
 - Spreads from cow to cow during milking – hands, equipment, and towels
- Mainly subclinical mastitis or repeat clinical mastitis
 - Check SCC – *Staph. aureus* cows tend to have recurring high SCC
- Difficult to treat/cure
 - Resistant to penicillin-type antibiotics – Today, Cefalax
 - Extended therapy protocol with Pirsue
 - Minimum of 5 day, maximum of 8 days of daily treatments
 - Attempt to cure at dry-off
 - Dry-off with normal dry-cow treatments (ex. Quartermaster)

- Discuss Antibiotic Treatments with Veterinarian
- See Antibiotic Usage and Withholding Chart on Pages 20-22
- Preventative measures
 - Milking technique - Use separate towels for prepping/cleaning each cow, Milk infected cows last, Dry treat all cows, Use an approved post-teat dip, Prevent liner slips during milking
 - *Staph aureus* vaccine – may not be very effective

OTHER ORGANISMS CULTURED

- *Mycoplasma*
 - Cultures sent to PSU
 - Difficult to treat/cure
- Yeast
 - Difficult to treat/cure

YEAR 1: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 2: TRAINED PERSON (SIGNATURE)

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VET. INITIALS

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YEAR 3: TRAINED PERSON (SIGNATURE)

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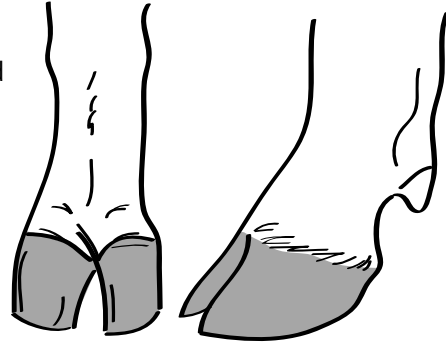
VET. INITIALS

(DATE)

GUIDELINES FOR TROUBLESHOOTING COMMON ILLNESSES - LAMENESS

SOLE ULCERS AND ABSCESSSES

- Usually on the bottom of the claw
 - May rupture out along coronary band
 - May cause swelling of the foot and further up leg
 - Can be mildly or severely lame
 - 90% of front foot lameness is located on the inside claw
 - 90% of rear foot lameness is located on the outside claw



• Treatment

- Glue a block on non-affected claw
- Pare away undermined sole and drain abscess
- Apply an antibacterial/antiseptic wound dressing (ex. Ichthammol)
- Wrap with vet-wrap

HAIRY HEEL WART

- Caused by a contagious bacterial infection
 - Severely painful, reddened area of skin at the heel of the foot, between the claws
 - May have "hair" growing from lesion

• Treatment

- Wrap foot with vet-recommended solution or powder on a bandage
 - Discuss Treatment with Veterinarian to Identify Protocol
- Use an effective, properly-managed, footbath

FOOT ROT

- Caused by a contagious bacterial infection of the tissues between the claws
 - Foot will be swollen bilaterally (on both sides) above the claws
 - Foul smelling black rotten discharge between the claws

• Treatment

- Expose affected area by cleaning and scraping away dead tissue
- Wrap foot with vet-recommended solution or powder on a bandage
 - Discuss Treatment with Veterinarian to Identify Protocol
- Give supportive pain relief – aspirin or banamine
- Systemic antibiotics if severe – naxcel, excenel, excede, tetracycline, penicillin
- See Antibiotic Usage and Withholding Chart on Pages 20-22

PREVENTION OF FOOT PROBLEMS/LAMENESS

Keep feet clean and dry

Routine Hoof Trimming

- The best way to prevent foot problems
- Trim each cow at least two times per lactation
 - Once in dry period, once after peak lactation

Cow Comfort

- For mature cow weighing 1,600 pounds, stall space allotted should measure 50 inches in width by 120 inches in length.
- Tie stall barns
 - Lots of bedding on top of mattresses – at least 4 inches
- Free stall barns
 - Lots of bedding on top of mattresses – at least 4 inches
 - Keep alleys clean to prevent disease spreading

Foot Baths

- Clean feet (water bath) before foot bath
 - Don't let cows drink foot baths

These disinfectants are options for footbaths:

- Copper Sulfate
 - Good for foot rot and toughening up hoof wall
 - Use a 5% solution if used daily
 - Use a 10% solution if used only every 2-3 days
- Formalin
 - Kills most everything – is toxic to people too!
 - Use a 3-5% solution
 - Can burn feet if not properly acclimated

Specific Protocols for Routine Trimming:

Specific Protocols related to Cow Comfort:

Specific Protocols for Foot Baths:

Specific Protocols to Address Lameness:

YEAR 1: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 2: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 3: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

GUIDELINES FOR CARING FOR DOWN COWS

Goals for down cattle care include preventing further injuries, maximizing their chance of recovery, ensuring welfare, and keeping both the cow and her human caretakers safe.

STEPS:

1. Assess the cow and area to assess the situation. Worker safety is a priority so remember to provide a safe down-cow working zones. Re-route healthy cattle around the down cow.
2. Ask yourself:
 - a) Are there obvious injuries or illnesses preventing her from standing? If it is an illness, use "Troubleshooting Common Illnesses" to assess the situation and provide treatment.
 - b) Is the floor slippery or wet? If so, provide sand or other material to provide traction. Ensure cow has enough lunge space to allow her to get up.
 - c) How is the cow lying? If she is lying normally and has enough lunge space, that encourage her to stand. If her legs are split apart, protect yourself as you put her legs back together. Use halter to restrain her and hobbles to provide support.
 - d) Is the cow lying flat out? She may be off balance. Get help to halter her and to place a rope low on the down rear leg. Tuck the down rear leg forward, then while pulling the rope under her to keep the leg tucked, roll the cow onto her sternum. She will need to be propped if she immediately tires to lie flat again.
 - e) Is she caught or trapped by anything? If yes, then it's a simple fix by removing the obstruction.
3. If she still can not get up after going troubleshooting the above questions, then you will need to first move her to a more secure location. This will require a team of individuals to assist you with moving her.
4. With the aid of a halter, tie her head to rear leg (bundling her), so she can be rolled onto a suitable surface – either a mat or piece of plywood would work. Apply traction by pulling the surface underneath, gliding her to a more secure location.

5. While bundled, roll her into a skid steer bucket; tip the bucket back and lift just high enough for ground clearance and drive her to a suitable area. Modified skid steer attachments (buckets) designed for moving down cows are available.
6. Large slings or belly bands are available to lift cattle and help them remain standing. Flotation tanks are another option. Hip lifts are not an acceptable approach to moving down cattle.

DOWN COW MANAGEMENT:

Goals for down cattle care include preventing further injuries, maximizing their chance of recovery, ensuring welfare, and keeping both the cow and her human caretakers safe.

- A bedded pack or pasture may be the best location in which to recover, but down cows must NOT be left outside.
- Down cows must be turned from side to side every four to six hours
- Down cows should be kept sitting up and not lying on their side, which speeds up muscle damage. If necessary, keep them propped up.
- Down cows should have access to both feed and water.
- When the cow is not standing in 12 hours after being moved to a suitable surface, the veterinarian must be consulted to determine a diagnosis of the underlying condition.

Supportive Care before Moving: _____

Method of Movement: _____

Preparation to Move: _____

After Care Location: _____

Schedule for feed and water: _____

Isolated from other cows?

Access to feed and water?

Sheltered from weather?

Protected from predators?

Criteria for Euthanasia: _____

**Refer to Euthanasia Decision Making Tree on nationaldairyfarm.com.*

YEAR 1: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)
YEAR 2: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)
YEAR 3: TRAINED PERSON (SIGNATURE)	(DATE)	VET. INITIALS	(DATE)

DOWN COW PROTOCOLS - REASONS FOR IMMEDIATE EUTHANASIA:

- | | |
|---|---|
| <input type="checkbox"/> Fracture | <input type="checkbox"/> Diseases that pose significant threat to human life (e.g., rabies) |
| <input type="checkbox"/> Trauma | <input type="checkbox"/> Disease/conditions that cause pain or distress that cannot be managed adequately |
| <input type="checkbox"/> Disease of limbs, hips, or spine resulting in immobility | <input type="checkbox"/> Emaciation and/or debilitation from disease, age, or injury that prevents the animal from being fit to transport |
| <input type="checkbox"/> Severe eye cancer | <input type="checkbox"/> Poor prognosis or prolonged expected recovery |
| <input type="checkbox"/> Loss of production or quality of life (advanced age, severe mastitis, etc.) | <input type="checkbox"/> Disease/condition where treatment is cost prohibitive |
| <input type="checkbox"/> Diseases with no known effective treatment (e.g., Johne's disease, lymphoma) | <input type="checkbox"/> Extended drug withdrawal time for clearance of tissue residue |

Other: _____

SPECIFIC EUTHANASIA PROCEDURES:

Primary Person Responsible for Euthanasia: _____

Secondary Person Responsible for Euthanasia: _____

Method of Euthanasia: Gunshot (*.22 caliber weapons are not adequate for euthanizing adult animals*) Captive Bolt Veterinarian

Secondary Method of Euthanasia: Second shot with Captive Bolt Exsanguination IV Administration of Potassium, Chloride or Magnesium Sulfate Pithing

Method of Confirmation of Unconsciousness: _____

Confirmation of Death: _____

Description of Disposal Plan: _____

If you are having trouble completing this page to document your down cow and euthanasia protocols, please work with your veterinarian or with your National FARM field representative from your cooperative or milk market.

YEAR 1: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 2: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 3: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

BIOSECURITY: COWS

GENERAL GUIDELINES WHEN PURCHASING NEW COWS:

Purchase animals from a reputable source

- Avoid auctions where multiple animals are mixed from multiple farms
 - Diseases are more likely to spread when animals are co-mingled from multiple sources
- Try to purchase directly from a farm (no “middle-man” or “middle-farm”)
 - Ex. Herd dispersal sale
- Remember, all dairy animals purchased out of state must be accompanied by a Certificate of Veterinary Inspection.

Ensure the animals are healthy

- All animals should be vaccinated with a 9-way or 10-way vaccine at least 3 weeks before being transported.
 - 9-way vaccines include IBR, BVDV, BRSV, PI-3, 5-way Lepto
- Have animals “tested” prior to purchase or immediately upon arriving at your farm
 - BVDV-PI – This is essential!!!! (These animals may look perfectly healthy!)
 - Ear notch test for calves or blood for heifers/cows
 - Johne’s Disease
 - While a negative blood ELISA test or fecal culture does not completely rule out Johne’s Disease, a positive test can determine when NOT to purchase an animal.
 - HPAI Testing
 - All dairy cattle over the age of 18 months should have a negative HPAI test prior to interstate movement.
 - Samples must be collected by accredited veterinarian and submitted to an approved laboratory for testing.
- Optional testing
 - TB
 - Brucellosis
 - Respiratory panel serology – BVDV, IBR, BRSV, PI3
 - Reproductive panel serology – 5-way Lepto, Neospora, BVDV
 - Milk culture – staph aureus, mycoplasma

Require paperwork regarding transaction

- Health chart stating examined by veterinarian
- Registration papers
- Breeding information – accurate pregnancy checks
- Vaccination status

On arrival at your farm

- Quarantine or separate all new arrivals
 - Perform testing as needed before mixing new additions in with rest of herd
- **Keep isolated for a minimum of 4 weeks**
 - Watch for any signs of infectious disease – nasal discharge, decreased appetite, diarrhea, fever, etc.
- **Keep a written record of all new arrivals and cattle purchases**
 - Ensure that they have proper identification upon arrival
 - Record all animal movements on and off the premise

With HPAI in dairy demonstrating the need for enhanced biosecurity on the farm, all farms should have a comprehensive biosecurity plan in place. To download the “Everyday Biosecurity Plan” template from National FARM, go to www.nationaldairyfarm.com/farm-biosecurity/. You can also request a printed copy of the template by calling the Center at 717-346-0849 or completing the form at www.centerfordairyexcellence.org/request-an-everyday-biosecurity-kit/. The information below is intended to provide basic guidelines around biosecurity measures you should have in place, but **does not replace the need for a comprehensive plan.**

GENERAL GUIDELINES FOR MOVING COWS WITHIN HERD

- Record all animal movements on and off the premises and between groups.
- Log the animals moved, date moved, and condition of animals when moving
- Keep all sick animals isolated from rest of herd

FOR SPECIFIC PROTOCOLS AROUND CATTLE MOVEMENTS:

Specific protocols related to new animals arriving at farm:

- Describe protocols related to new animal arrivals

Specific protocols related to cattle movements on and off the farm:

- Describe protocols around moving cattle between groups.

- Describe how movements between groups are recorded.

- Describe how sick animals are isolated.

YEAR 1: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 2: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

YEAR 3: TRAINED PERSON (SIGNATURE)

(DATE)

VET. INITIALS

(DATE)

BIOSECURITY: SANITATION AND VISITORS

GUIDELINES ON CLEANING AND SANITATION:

- Require all employees and visitors to clean and sanitize their boots when arriving at your farm and before leaving the premises.
- Before sanitizing boots, make sure all visible organic matter is removed from the boots with a brush.
- Ensure you are using the proper disinfectant to clean boots. Proper disinfectants to use in sanitation can be found at www.epa.gov/pesticide_registration/epas-registered-antimicrobial-products-effective-against-avian-influenza.
- Wear gloves and protective gear when working around animals.
- Keep equipment clean and use separate equipment for feeding and cleaning up manure to avoid cross contamination.
- Provide cleaning and sanitation station with disinfectant for those arriving on and leaving farm

Who is your biosecurity manager: _____

Phone number: _____

Describe sanitation when arriving at farm and leaving farm: _____

Describe disinfectant products used for visitors and employees to sanitize upon arrival: _____

Describe other biosecurity entry steps for the operation: _____

GUIDELINES AROUND VISITORS:

- Post signs on your property indicating where biosecure areas are.
- Only allow essential visitors into biosecure areas on your farm. Indicate a drop off point for any deliveries or pick ups away from the biosecure area.
- Require all visitors to sign in on a visitors log when they are visiting the farm.
- Have a biosecurity sign at the front entrance with a phone number visitors should call before coming onto the premises.
- Require any essential visitors to wear clean clothing onto the farm that has not been around animals on other operations.
- Require all visitors to wear protective booties or sanitize their boots upon arriving and when leaving the premises.

SPECIFIC HERD PROTOCOLS REGARDING VISITORS: _____

_____ YEAR 1: TRAINED PERSON (SIGNATURE)	_____ (DATE)	_____ VET. INITIALS	_____ (DATE)
_____ YEAR 2: TRAINED PERSON (SIGNATURE)	_____ (DATE)	_____ VET. INITIALS	_____ (DATE)
_____ YEAR 3: TRAINED PERSON (SIGNATURE)	_____ (DATE)	_____ VET. INITIALS	_____ (DATE)

FITNESS TO TRANSPORT

FITNESS TO TRANSPORT

- The American Association of Bovine Practitioners defines “fitness for transport” as the animal’s ability to withstand transportation without compromising their welfare.
- Identify:
 - How are family and non-family employees trained to identify animals fit to transport?
 - Who is authorized to make the decision to transport for culling or other purposes?
 - What type of transportation is utilized to transport?
 - How are reasons for culling recorded?
- Who is ultimately responsible for deciding whether to transport for slaughter or euthanize? How is that decision made?
- **Do not transport to slaughter if:**
 - Clinical signs of HPAI in dairy are observed
 - Cancer eye or blindness in both eyes
 - Fever greater than 103°F
 - Contains drug residues
 - Shows evidence of peritonitis (inflammation or swelling), fractures or lameness (4 or 5 on a 5-point scale)
 - Cows with unreduced prolapses
 - Cows that are calving or have a high likelihood of calving during transport
 - Distended udders causing pain and ambulatory issues
 - Suspected central nervous system symptoms
 - Visible open wounds
 - Multiple enlarged lymph nodes (Bovine Leukosis)”
- **Keep good records to ensure residue avoidance**
 - Document animal identification, treatment records, and antibiotic withdrawals to ensure residue avoidance.
- **Ensure you are following any state or federal orders around cattle movements.**
 - Make sure any animals moving across state lines are both visually and electronically identified
 - Make sure you are following pre-movement testing requirements for HPAI related to interstate travel.

How are individuals trained to identify animals fit to transport? _____

Where are treatment records with withdrawal times for treatments recorded? _____

How are animals that have a milk or meat withhold clearly identified to reduce the chance of violation and protect food safety? _____

Adult Animals

Individual(s) responsible for transportation decisions: _____

Parameters for transport: _____

Young Animals

Individual(s) responsible for transportation decisions: _____

Parameters for transport: _____

YEAR 1: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 2: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

YEAR 3: TRAINED PERSON (SIGNATURE) (DATE) VET. INITIALS (DATE)

MEDICATIONS FOR NON-LACTATING CATTLE

The term non-lactating cattle is defined as dairy bulls, dairy calves, and replacement heifers. Read label indications carefully. Some products are not approved for non-ruminating calves and female dairy cattle 20 months of age and older. Some products cannot be used with veal calves. Carefully consult the labels.

FDA-APPROVED DRUGS FOR INJECTABLE USE

ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER	ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Ampicillin trihydrate	Rx	6 days	Polyflex®	Boehringer Ingelheim Animal Health, USA Inc.	Ivermectin/Clorsulon	OTC	21 days	Bimectin Plus Injection	Bimeda, Inc.
Ceftiofur crystalline free acid	Rx	13 days	EXCEDE®	Zoetis, Inc.		OTC	21 days	Noromectin® Plus Injection	Norbrook Laboratories, Ltd.
Ceftiofur hydrochloride	Rx	4 days	EXCENEL® RTU EZ	Zoetis, Inc.	Ketoprofen	Rx	2 days	Ketofen®	Zoetis, Inc.
Ceftiofur sodium	Rx	4 days	Naxcel® Sterile Powder	Zoetis, Inc.		Rx	18 days	DRAXXIN®KP	Zoetis, Inc.
Cloprostenol sodium	Rx	None	Estrumate®	Merck Animal Health	Levamisole	Rx	15 days	Valcor	Zoetis, Inc.
	Rx	None	SynchSure	Boehringer Ingelheim Animal Health, USA Inc.	Moxidectin	OTC	21 days	Cydetin Injectable	Elanco Animal Health
Dinoprost tromethamine	Rx	None	Lutalyse® Sterile Solution	Zoetis, Inc.		OTC	21 days	Tauramox™	Norbrook Laboratories, Ltd.
	Rx	None	ProstaMate	Bimeda, Inc.	Oxytetracycline	Rx	28 days	AGRIMYCIN® 200	Huvepharma
Doramectin	OTC	35 days	Dectomax® Injectable	Zoetis, Inc.		Rx	28 days	Bio-Mycin® 200	Boehringer Ingelheim Vetmedica, Inc.
	Rx	15 days	Valcor	Zoetis, Inc.		Rx	28 days	Liquamycin® LA-200®	Zoetis, Inc.
Enrofloxacin	Rx	28 days	EnroMed	Bimeda, Inc.		Rx	28 days	Noromycin® 300 LA	Norbrook Laboratories, Ltd.
	Rx	28 days	Enroflox® 100	Norbrook Laboratories, Ltd.		Rx	28 days	Oxytetracycline Injection 200	Norbrook Laboratories, Ltd.
	Rx	28 days	Baytril® 100	Elanco Animal Health	Oxytetracycline hydrochloride	Rx	22 days	Oxytet 100	Norbrook Laboratories, Ltd.
Eprinomectin	Rx	48 days	LongRange®	Boehringer Ingelheim Animal Health, USA Inc.	Penicillin G (procaine)	Rx	14 days	Norocillin	Norbrook Laboratories, Ltd.
Florfenicol	Rx	28 or 38 days* (See label)	Nuflo® Injectable Solution	Merck Animal Health	Plasmid DNA	Rx	21 days	Zelnate	Elanco Animal Health
	Rx	33 day SubQ/28 days IM	Norfenicol® Injectable Solution	Norbrook Laboratories, Ltd.	Selenium (sodium selenite) and Vitamin E	Rx	30 days	BO-SE®	Merck Animal Health
	Rx	38 days SC/28 days IM	Loncor 300	Elanco Animal Health	Spectinomycin sulfate	Rx	11 days	SpectoGard Sterile Solution	Bimeda, Inc.
Florfenicol and Flunixin meglumine	Rx	38 days	Resflor Gold®	Merck Animal Health	Sulfadimethoxine	Rx	5 days	Sulfamed Injection	Bimeda, Inc.
Flunixin meglumine	Rx	4 days	Banamine®	Merck Animal Health	Tilidipirosin	Rx	21 days	Zuprevo 18%®	Merck Animal Health
	Rx	4 days	Flu-Nix	Huvepharma	Tilmicosin phosphate	Rx	42 days	Micotil Injection	Elanco Animal Health
Gamithromycin	Rx	35 days	Zactran	Boehringer Ingelheim Animal Health, USA Inc.	Tulathromycin	Rx	18 days	Arovyn™	Merck Animal Health
Gonadorelin diacetate tetrahydrate	Rx	None	Cystorelin	Boehringer Ingelheim Animal Health, USA Inc.		Rx	22 days	DRAXXIN 25®	Zoetis, Inc.
	Rx	None	Fertagyl®	Merck Animal Health		Rx	18 days	DRAXXIN®	Zoetis, Inc.
	Rx	None	OvaCyst	Bimeda, Inc.		Rx	18 days	DRAXXIN®KP	Zoetis, Inc.
Gonadorelin hydrochloride	Rx	None	Factrel®	Zoetis, Inc.		Rx	18 days	Increxxa	Elanco Animal Health
Gonadotropin (chorionic)	Rx	None	Chorulon®	Merck Animal Health		Rx	18 days	Macrosyn	Bimeda, Inc.
Ivermectin**	OTC	35 days	Bimectin Injection	Bimeda, Inc.		Rx	18 days	Vacasan	Huvepharma
	OTC	35 days	AGRI-MECTIN® 1%	Huvepharma	Tylosin	OTC	21 days	Tylan Injection 50/200	Elanco Animal Health
Ivermectin **	OTC	35 days	IVOMEC 1% Injection for Cattle	Boehringer Ingelheim Animal Health, USA Inc.	Tylosin	Rx	21 days	BiloVet Injection	Bimeda, Inc.
	OTC	35 days	Noromectin® Injection for Cattle and Swine	Norbrook Laboratories, Ltd.	Vitamin E	OTC	None	Vitamin E 300	Huvepharma

FDA-APPROVED DRUGS FOR ORAL USE

ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER	ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Albendazole	OTC	27 days	Valbazen® Suspension	Zoetis, Inc.	Oxfendazole	OTC	7 days	Synanthi® Bovine Dewormer Suspensions, 22.5 % and 9.06%	Boehringer Ingelheim Vetmedica, Inc.
Amprolium	OTC	24 hours	Corid 20% Powder	Huvepharma	Oxytetracycline hydrochloride	Rx	5 days	Pennox 343 Soluble Powder	Pharmgate Animal Health
	OTC	24 hours	Corid 9.6%	Huvepharma		Rx	7 days	Terramycin® Scours Tablets	Zoetis, Inc.
	OTC	1 day	AmproMed for Calves	Bimeda, Inc.		Rx	5 days	Tetroxy 25	Bimeda, Inc.
Chlortetracycline hydrochloride	Rx	1 day	Pennchlor 64 Soluble Powder	Pharmgate Animal Health		Rx	5 days	Tetroxy 343	Bimeda, Inc.
Citric acid	OTC	None	Re-Sorb® Powder	Zoetis, Inc.	Potassium citrate	OTC	None	Re-Sorb® Powder	Zoetis, Inc.
Decoquinatate	OTC	None	Deccox-M	Zoetis, Inc.	Potassium dihydrogen phosphate	OTC	None	Re-Sorb® Powder	Zoetis, Inc.
Dextrose	OTC	None	Re-Sorb® Powder	Zoetis, Inc.	Sodium chloride	OTC	None	Re-Sorb® Powder	Zoetis, Inc.
Fenbendazole	Rx	8 days	Panacur 10% Suspension	Merck Animal Health	Sulfadimethoxine	Rx	7 days	Di-Methox 12.5% Oral Solution	Huvepharma
	OTC	8 days	Safe-Guard 10% Paste	Merck Animal Health		Rx	7 days	Di-Methox Soluble Powder	Huvepharma
	OTC	8 days	Safe-Guard 10% Suspension	Merck Animal Health	Sulfamethazine	Rx	12 days	Sustain III - Calf	Bimeda, Inc.
Glycine	OTC	None	Re-Sorb® Powder	Zoetis, Inc.		Rx	12 days	Sustain III - Cattle	Bimeda, Inc.
Levamisole hydrochloride	OTC	48 hours	Prohibit Soluble Drench	Huvepharma	Sulfamethazine (sodium)	Rx	10 days	SMZ-Med	Bimeda, Inc.
	OTC	2 days	LevaMed	Bimeda, Inc.	Tetrachlorvinphos	OTC	None	Rabon 7.76 Oral Larvicide	Elanco Animal Health
Neomycin sulfate	Rx	1 day	NeoMed 325 Soluble Powder	Bimeda, Inc.	Tetracycline hydrochloride	Rx	5 days	Tetrabac 324	Huvepharma
	Rx	1 day	Neosol 50	Huvepharma		Rx	5 days	TetraMed 324 HCA	Bimeda, Inc.

MEDICATIONS FOR NON-LACTATING CATTLE

The term non-lactating cattle is defined as dairy bulls, dairy calves, and replacement heifers. Read label indications carefully. Some products are not approved for non-ruminating calves and female dairy cattle 20 months of age and older. Some products cannot be used with veal calves. Carefully consult the labels.

FDA-APPROVED DRUGS FOR TYPE A MEDICATED ARTICLE USE

Per changes to FDA regulatory definitions, previously referred to as feed additives, these products are now being referred to as "Type A Medicated Article."

ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Amprolium	OTC	24 hours	Corid 1.25% Type C	Huvepharma
	OTC	24 hours	Corid 2.5% Type B	Huvepharma
	OTC	24 hours	Corid 25% Type A	Huvepharma
Chlortetracycline	VFD	None	Aureomycin G	Zoetis, Inc.
	VFD	1 day	ChlorMax 50	Zoetis, Inc.
Chlortetracycline calcium	VFD	None	Pennchlor™	Pharmgate Animal Health
	VFD	None	Deracin®	Pharmgate Animal Health
Chlortetracycline hydrochloride	VFD	10 days	CLT® 100 MR	Phibro Animal Health
Decoquinatate	OTC	None	Deccox	Zoetis, Inc.
Fenbendazole	OTC	13 days	Safe-Guard 0.5% Top Dress Pellets	Merck Animal Health
	OTC	13 days	Safe-Guard 1.96% Free-Choice Mineral	Merck Animal Health
	OTC	13 days	Safe-Guard 20% Salt Free-Choice Mineral	Merck Animal Health
Lasalocid	OTC	None	Bovatec Premix	Zoetis, Inc.
Monensin	OTC	None	Monovet 90	Huvepharma
Monensin (sodium)	OTC	None	Rumensin 90	Elanco Animal Health
Morantel tartrate	OTC	14 days	Rumatel® 88	Phibro Animal Health

ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Neomycin-oxytetracycline	VFD	5 days	Neo-Oxy 100/100 MR	Pharmgate Animal Health
	VFD	0-5 days*	Neo-Oxy® 50/50-	Pharmgate Animal Health
	VFD	0-5 days*	Neo-Terramycin® 100/100	Phibro Animal Health
	VFD	0-5 days*	Neo-Terramycin® 100/100D	Phibro Animal Health
	VFD	0-5 days*	Neo-Terramycin® 50/50	Phibro Animal Health
	VFD	0-5 days*	Neo-Terramycin® 50/50D	Phibro Animal Health
Oxytetracycline (quaternary salt)	VFD	0-5 days*	Pennox®	Pharmgate Animal Health
Oxytetracycline dihydrate	VFD	None	Terramycin® 100	Phibro Animal Health
	VFD	None	Terramycin® 100MR	Phibro Animal Health
	VFD	None	Terramycin® 200	Phibro Animal Health
	VFD	None	Terramycin® 50	Phibro Animal Health
Poloxalene	OTC	None	Bloat Guard® Liquid Type A Medicated Article	Phibro Animal Health
	OTC	None	Bloat Guard® Medicated Top Dressing	Phibro Animal Health
	OTC	None	Bloat Guard® Type A Medicated Article	Phibro Animal Health
Virginiamycin	VFD	None	V-Max® 50 Phibro Animal Health	

FDA-APPROVED DRUGS FOR TOPICAL USE

ACTIVE INGREDIENT	DRUG TYPE	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Cyfluthrin	OTC	None	CyLence	Elanco Animal Health
Diffubenzuron & permethrin	OTC	None	Clean-Up II	Elanco Animal Health
Doramectin	OTC	45 days	Dectomax® Pour-On	Zoetis, Inc.
Eprinomectin	OTC	None	EPRINEX Pour-On for Beef and Dairy Cattle	Boehringer Ingelheim Animal Health, USA Inc.
	OTC	None	Eprizero™ Pour-On for Beef and Dairy Cattle	Norbrook Laboratories, Ltd.
Flunixin meglumine	Rx	8 days	Banamine® Transdermal Pour-On	Merck Animal Health
Ivermectin**	OTC	48 days	Bimectin Pour-On	Bimeda, Inc.
	OTC	48 days	Agrimectin Pour-On	Huvepharma
	OTC	48 days	IVOMEK (Ivermectin) Pour-On	Boehringer Ingelheim Animal Health, USA Inc.
	OTC	48 days	Noromectin® Pour-On	Norbrook Laboratories, Ltd.
Moxidectin	OTC	None	Cydectin Pour-On	Elanco Animal Health
Oxytetracycline hydrochloride/ Polymyxin B sulfate	Rx	None	Terramycin® Ophthalmic Ointment with Polymyxin	Zoetis, Inc.
Permethrin & piperonyl butoxide	OTC	None	Permethrin CDS Pour-On	Elanco Animal Health

FDA-APPROVED DRUGS FOR INTRAMAMMARY USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
NON-LACTATING, REQUIRES AT LEAST 30 DAY DRY PERIOD					
Ceftiofur hydrochloride	Rx	None	16 days	SPECTRAMAST® DC	Zoetis, Inc.
Cephapirin (benzathine)	Rx	72 hours	42 days	Tomorrow® Infusion	Boehringer Ingelheim Vetmedica, Inc.
Cloxacillin (benzathine)	Rx	None	30 days	Dry-Clox®	Boehringer Ingelheim Vetmedica, Inc.
	Rx	None	28 days	Orbenin-DC™	Merck Animal Health
Penicillin G (procaine)/Novobiocin	OTC	72 hours Postcalving	30 days	AlbaDry® Plus Suspension	Zoetis, Inc.
LACTATING					
Amoxicillin trihydrate	Rx	60 hours	12 days	Amoxi-Mast®	Merck Animal Health
Ceftiofur hydrochloride	Rx	72 hours	2 days	Spectramast® LC	Zoetis, Inc.
Cephapirin (sodium)	Rx	96 hours	4 days	Today®	Boehringer Ingelheim Vetmedica, Inc.
Hetacillin (potassium)	Rx	72 hours	10 days	PolyMast®	Boehringer Ingelheim Vetmedica, Inc.

* Withholding times depend upon labeled dosage used.

** Ivermectin is not approved for female dairy cattle of breeding age.

*** Discontinued product; some may still be in market.

^ 0 milk withdrawal IF 30-day dry period

~ Carefully review labeling as withdrawal times vary with species and use levels.

MEDICATIONS FOR LACTATING CATTLE

FDA-APPROVED DRUGS FOR INJECTABLE USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Ampicillin trihydrate	Rx	48 hours	6 days	Polyflex®	Boehringer Ingelheim Vetmedica, Inc.
Ceftiofur crystalline-free acid	Rx	None	13 days	EXCEDE®	Zoetis, Inc.
Ceftiofur hydrochloride	Rx	None	4 days	EXCENEL® RTU EZ	Zoetis, Inc.
Ceftiofur sodium	Rx	None	4 days	Naxcel® Sterile Powder	Zoetis, Inc.
Cloprostenol sodium	Rx	None	None	Estrumate®	Merck Animal Health
	Rx	None	None	SynchSure	Boehringer Ingelheim Animal Health, USA Inc.
Dexamethasone	Rx	None	None	Dexamethasone Solution	Clipper Distributing Co., LLC
	Rx	None	None	Dexium	Bimeda, Inc.
Dinoprost tromethamine	Rx	None	None	Lutalyse® HighCon Injection	Zoetis, Inc.
	Rx	None	None	Lutalyse® Sterile Solution	Zoetis, Inc.
	Rx	None	None	ProstaMate	Bimeda, Inc.
Flunixin meglumine	Rx	36 hours	4 days	Banamine®	Merck Animal Health
	Rx	36 hours	4 days	Flu-Nix™ - D	Huvepharma
	Rx	36 hours	4 days	Flunazine	Bimeda, Inc.
	Rx	37 hours	4 days	Flunixin Injection	Norbrook Laboratories, Ltd.

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Gonadorelin diacetate tetrahydrate	Rx	37 hours	None	Cystorelin Injectable	Boehringer Ingelheim Animal Health, USA Inc.
	Rx	None	None	Fertagyl®	Merck Animal Health
	Rx	None	None	OvaCyst	Bimeda, Inc.
Gonadorelin hydrochloride	Rx	None	None	Factrel®	Zoetis, Inc.
Gonadotropin (chorionic)	Rx	None	None	Chorulon®	Merck Animal Health
Oxytetracycline	Rx	96 hours	28 days	Agrimycin 200	Huvepharma
	Rx	96 hours	28 days	Bio-Mycin® 200	Boehringer Ingelheim Vetmedica, Inc.
	Rx	96 hours	28 days	Liquamycin® LA-200®	Zoetis, Inc.
	Rx	28 days	28 days	Oxytetracycline Injection 200	Norbrook Laboratories, Ltd.
Oxytocin		None	None	Oxytocin Injection	Bimeda, Inc.
Penicillin G (procaine)	Rx	48 hours	14 days	Norocillin	Norbrook Laboratories, Ltd.
Sulfadimethoxine	Rx	60 hours	5 days	Di-Methox Injection 40%	Huvepharma
	Rx	60 hours	5 days	Sulfamed Injection	Bimeda, Inc.

FDA-APPROVED DRUGS FOR INTRAMAMMARY USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Amoxicillin trihydrate	Rx	60 hours	12 days	Amoxi-Mast®	Merck Animal Health
Ceftiofur hydrochloride	Rx	72 hours	2 days	SPECTRAMAST™ LC	Zoetis, Inc.
Cephapirin (sodium)	Rx	96 hours	4 days	Today®	Boehringer Ingelheim Vetmedica, Inc.
Hetacillin (potassium)	Rx	72 hours	10 days	PolyMast®	Boehringer Ingelheim Vetmedica, Inc.

FDA-APPROVED DRUGS FOR INTRAVAGINAL USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Progesterone	OTC	None	None	EAZI-Breed™ CIDR® Cattle Insert*	Zoetis, Inc.

FDA-APPROVED DRUGS FOR ORAL USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Fenbendazole	OTC	None	8 days	Safe-Guard 10% Paste	Merck Animal Health
	OTC	None	8 days	Safe-Guard 10% Suspension	Merck Animal Health
Poloxalene	OTC	None	None	Bloat Guard® Top Dressing	Phibro Animal Health
	OTC	None	None	TheraBloat® Drench Concentrate	Zoetis, Inc.
Sulfadimethoxine	Rx	60 hours	7 days	ALBON® Bolus (for 5 gram bolus)	Zoetis, Inc.
Tetrachlorvinphos	OTC	None	None	Rabon 7.76 Oral Larvicide	Elanco Animal Health

FDA-APPROVED DRUGS FOR TOPICAL USE

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Cyfluthrin	OTC	None	None	CyLence	Elanco Animal Health
Diflubenzuron & permethrin	OTC	None	None	Clean-Up II	Elanco Animal Health
Eprinomectin	OTC	None	None	EPRINEX Pour-On for Beef & Dairy Cattle	Boehringer Ingelheim Animal Health, USA Inc.
	OTC	None	None	Eprizero™ Pour-On for Beef and Dairy Cattle	Norbrook Laboratories Ltd.
Flunixin meglumine	Rx	48 hours	8 days	Banamine® Transdermal Pour-On ^	Merck Animal Health
Moxidectin	OTC	None	None	Cydetin Pour on	Elanco Animal Health
Oxytetracycline hydrochloride/ Polymyxin B sulfate	Rx	None	None	Terramycin® Ophthalmic Ointment with Polymyxin	Zoetis, Inc.
Permethrin & piperonyl butoxide	OTC	None	None	Permethrin CDS Pour-On	Elanco Animal Health

FDA-APPROVED DRUGS FOR TYPE A MEDICATED ARTICLE USE*

ACTIVE INGREDIENT	DRUG TYPE	MILK WITHHOLDING TIME	MEAT WITHHOLDING TIME	PRODUCT NAME	MANUFACTURER/MARKETER
Monensin (sodium)	OTC	None	None	Rumensin 90	Elanco Animal Health
Monensin	OTC	None	None	Monovet 90	Huvepharma

† 9-day meat withhold following infusion twice at a 24-hour interval; 21-day meat withhold following any extended duration of therapy longer than 2 days and up to 8 consecutive days.

* Withholding times depend upon labeled dosage used.

** Ivermectin is not approved for female dairy cattle of breeding age.

*** Discontinued product; some may still be in market.

^ 0 milk withdrawal IF 30-day dry period

∨ Carefully review labeling as withdrawal times vary with species and use levels.

DAILY TREATMENT RECORDS

Use these pages to record any individual treatments you are administering to your herd.

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

Cow ID	Date of Treatment	Condition Treated	Treatment Plan					Withdrawal Time		Calculated Withdrawal Period Expires		Remarks Example: initials of person treating or testing
			Treatment	Dosage	Route of Admin.	Frequency of Treatment	Duration of Treatment	Milk (Hours)	Meat (Days)	Milk	Meat	
1234	4/1/21	Mild Mastitis	Oxytocin	2cc	Im	every milking	4 Milkings	0 hrs	0 days			
4321	4/1/21	Mastitis w/ Hard Quarter	Pirsue	1 tube/ quarter	IMM	every 24 hours	2 days	36 hrs	9 days	4/3/21 PM	4/10/20	
1428	4/1/21	Dry treat	Tomorrow	1 tube/ quarter	IMM	once at dry off	Once	72 hrs	42 days	4/4/21 PM	5/16/20	

Please follow treatment protocols approved by your veterinarian, as well as proper usage and withholding practices for all treatments. See Pages 20-22 for List of Common Medicines, Dosages and Withholdings.

DAILY TREATMENT RECORDS

Use these pages to record any individual treatments you are administering to your herd.

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

Cow ID	Date of Treatment	Condition Treated	Treatment Plan					Withdrawal Time		Calculated Withdrawal Period Expires		Remarks Example: initials of person treating or testing
			Treatment	Dosage	Route of Admin.	Frequency of Treatment	Duration of Treatment	Milk (Hours)	Meat (Days)	Milk	Meat	

Please follow treatment protocols approved by your veterinarian, as well as proper usage and withholding practices for all treatments. See Pages 20-22 for List of Common Medicines, Dosages and Withholdings.

DAILY TREATMENT RECORDS

Use these pages to record any individual treatments you are administering to your herd.

Farm Name: _____ Veterinarian: _____ Veterinarian Phone Number: _____

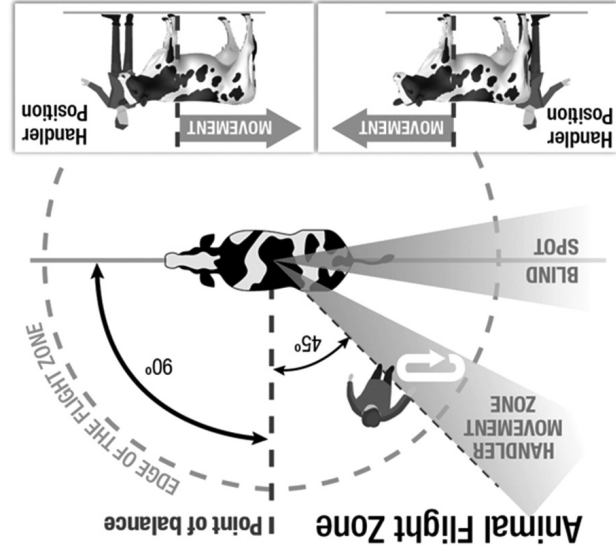
Cow ID	Date of Treatment	Condition Treated	Treatment Plan					Withdrawal Time		Calculated Withdrawal Period Expires		Remarks Example: initials of person treating or testing
			Treatment	Dosage	Route of Admin.	Frequency of Treatment	Duration of Treatment	Milk (Hours)	Meat (Days)	Milk	Meat	

Please follow treatment protocols approved by your veterinarian, as well as proper usage and withholding practices for all treatments. See Pages 20-22 for List of Common Medicines, Dosages and Withholdings.

Guidelines on Stockmanship and Handling Cattle

Understanding how to handle cattle and effectively move them from one area to another with minimal stress is a critical aspect to animal welfare. The five guidelines below are adapted from an AllTech brochure on the "Five Simple Rules for Moving Cattle:"

- 1) Knowing her flight zone. As prey animals, cows will react differently when they are approached from different directions. Here is a diagram that outlines a cow's flight zone. Always remember to be calm and consistent when approaching and handling cattle.



Credit: California Dairy Research Foundation

- 2) Approach animals calmly and with a slow pace. You need to remember to move cows at their own pace. A cow's head being down is an indicator that she is moving at her own pace. If her head is up, she is most often agitated. Cows also are social creatures and move in order of their rank, with the lead cow always out in front.
- 3) A consistent routine is critical. Cows are creatures of habit. Strictly adhere to a schedule for moving and milking them. After three weeks of a consistent schedule, the cows will adapt to that schedule. Also, never raising your voice or using violent or abrupt motions will maintain calmness in the herd.

- 4) Obstacles should be removed. Walkways and holding pens should be clean and dry. If high-slip areas exist, putting down sand can enhance the ease in which the cows move through the area. Any obstacles, like ridges on gates, that could cause injuries should also be removed. Providing extra space to avoid overcrowding is also helpful to allow the cows to move with ease and avoid each other if needed.
- 5) A cow should be gently guided. Cows should be allowed to move into the parlor on their own. If they need to be herded in, you should walk around the pen and approach them utilizing their flight zone. Do not approach them directly from the front or within their blind spot in the back.

For Additional Resources, Visit:

National FARM Website: Here you will find record-keeping templates, posters, protocol sheets, and training videos, along with a wealth of other resources, to help you implement the FARM Program on your farm. Visit nationaldairyfarm.com to learn more.

Center for Dairy Excellence: The Center has added a section to its website where it will compile resources tailored to Pennsylvania dairy farms to assist in implementing the FARM Program. Those resources can be found at centerfordairyexcellence.org/animal-welfare-resources/.

Your herd veterinarian and milk handler/cooperative representative are also helpful resources in finding what you need to meet the requirements of the National FARM Program. Their contact information should be written in below:

Milk Handler/Cooperative FARM Contact:

Phone Number: _____

Herd Veterinarian: _____

Phone Number: _____

To order another book, contact:



The Center for Dairy Excellence
 2301 North Cameron Street, Room 407
 Harrisburg, PA 17110
 Phone: 717-346-0849
 Email: info@centerfordairyexcellence.org