Introduction

The key to a healthy calf is to start with a strong, healthy dry cow. You cannot afford to give anything but the best care to your calves — your success as a dairy farmer depends upon it. Treating calf diseases is often very difficult and stressful because the onset and decline can be very rapid. Good management, recognition and skill are necessary to treat calf diseases effectively — even more so as organic farmers. What follows are some of the most common diseases and successful protocols for organic treatment.

Navel Infections

Navel infections usually occur about 5–7 days after birth when a wet inflamed navel shows up. If the navel is tearing off at birth and it’s happening a lot, your dry cows are short of copper and/or selenium. Get some of both into the dry cow ration. Navel infections start at birth from dirty conditions in the pen. The navel is actually a cord of life that carries the umbilical artery and vein from the calf’s liver to the placenta where the nutrients come from the dam. This cord is full of blood, a perfect media for bacteria. Use clips or tie off the cord to stop capillary action. Use 7% strong iodine liberally, tip the calf over and soak the entire cord. The cord should hang down and dry up, become hard and fall off in 7–12 days. Never cut the cord off at the belly.

The first sign of navel infection is fever, 103° or so, and a wet, weepy and sensitive to the touch navel. The second sign is swollen joints. This is because the infection went systemic and usually settles out in the front knee joints.

Treatment:

Strong iodine. It’s best to lay the calf down so you can examine it. Wound spray (organic) may be needed if there is an open sore. I like to then put the calf on a seven day regimen of tincture antibiotics. Garlic tincture or a combination of garlic, cayenne and Echinacea works well. In Australia, everyone’s antibiotic is colloidal silver. Here we’re not permitted to use it. Oregano, Golden Seal and Eucalyptus tinctures all have antibacterial qualities. Treat for 7 days, placing the tincture under the tongue twice a day, using about 2 ccs of a full strength tincture. Also, use an aloe vera liquid to stimulate the immune system. Drench 2 oz. per feeding during this seven day period. Some navel infections will go south on you if the bacteremia (blood stream infection) is bad enough. Calves can have the infection settle out in the joints, especially the knees and the stifles. Sometimes an open sore appears on the knee joints bigger than a half dollar: open, bacterial, weeping and painful. These calves usually die. This usually happens at about the 7th–8th day after birth.
**Scours**

Any scour that appears before 48 hours is a dry cow problem. The exception might be if a calf is fed very cold milk, it may scour in less then 48 hours. I like to categorize scours into these types:

- **E. coli** – this is a yellow scour which usually appears at 4-7 days with yellow, loose stool.
- **Salmonella** – appears a little later, 7-11 days, very dark stool, and a very smelly odor. This is accompanied by high death loss.
- **Roto-corona** (viral) – hits at 48 hours. I like to categorize milk, it may scour in less then 48 hours is a dry cow problem. The exception might be if a calf is fed very cold milk, it may scour in less then 48 hours.
- **Crypto** has a short life cycle of 1-2 days, very dark stool, and a very smelly odor. Wet bedding and poor housing is usually associated with coccidiosis, and it doesn't show up much before the third week of life.

**Organic Treatment for Scours:**

- **E. Coli** – Aloe drench at 1 oz. per 100 pounds of body weight. Eucalyptus tincture orally. There are many herbal treatments also reported to work. Carbo-veg homeopathy orally helps all scours. CEG Tincture also is needed here.
- **Salmonella** – there are a group of large polysaccharides that one can feed that the organism can feed on and cannot detach from and thus will get removed from the system. Liquid humates hit Salmonella hard (Calf Start). Dry humates work fairly well, but you may also use them in a drench or free choice.
- **Roto-corona** – this is viral. Use aloe liquid drench, humates and electrolytes. Vaccinate the dry cow with vaccine or nosode.
- **Crypto** – Prevention is the best bet. Put your calves on a calf shield from day one or Calf Start, which is a liquid humate from day one. Follow directions on both. These should be continued for three to four weeks.
- **Coccidia** – both of the crypto treatments work to prevent and treat this problem.

**Pneumonia**

The bovine has a weak set of lungs. The healthiest, best fed and cared for calves get pneumonia. The first sign of pneumonia will be a high temperature, fast breathing, off feed and slow and lethargic behavior. It is usually contagious as most calves in a pen will go through respiratory challenges. Pneumonia can be viral or bacterial or both and is usually triggered by stress, like weather, moisture, wind temperature change or hauling. If you have a stress, like the door blew open and your calves got snowed on with a north wind, don't sit back and watch the animal incubate. The disease organism will hit them when they crash. Start them immediately on aloe vera to prop up the immune system. Give liquid in the water or use an aloe vera pellet. There are at least four companies making a quality aloe pellet. I recommend one ounce of the pellet per 100 pounds of body weight daily for five to seven days. When moving calves any distance, start feeding aloe three days before they leave and keep them on the aloe pellets for 12-14 days. If you really want to kick the immune system, then add Echinacea tincture orally or in the water. Nothing helps the immune system more then these two items.
Calves with consolidated masses and with damaged lung tissue have less functional lung alveoli and end up open mouth breathing. These are called lungers. If the damage isn’t too bad, you can turn downhill, but if the lung damage isn’t too bad you can turn a few around.

### Chronic Bloat

Bloat is often a sequel to pneumonia or shipping fever. I have yet to find a medical treatment in the conventional or organic world that will touch chronic bloaters. The nerve that controls the rumen comes off the neck by the 7th cervical vertebrae. This runs through the thorax on top of the lungs. Scar tissue in the lungs can interfere with the innervations of the rumen. My treatment came out of an early 1900’s vet book. Put these chronic bloaters on whole oats. I’ve had high success by doing this. If they become really huge, you will have to tube them with a stomach tube to release the air or they will die. Then put them on oats. They will usually eat it readily. Keep them on good forage but replace all grain and start with whole oats.

### Ear Infections

I did not see ear infections my first twenty years of practice. They started to appear when we started pushing cows hard. Ear infections are associated with herds that have myco-plasma problems. Now my observation is myco-plasma is directly associated with acidosis. Myco-plasma mastitis will be common in acidotic herds. The first sign of an ear infection is a calf will start to walk around with a tilted head. On examination, the ear canal will be filled with yellow pus, lots of it. When the head is tilted you have already gotten a middle ear infection. Sometimes both ears will be infected. This usually hits calves when they are under one month of age. Treatment is aloe vera in the ear. Take an old towel, hold the ear up and pour in the aloe vera liquid. Fill it up and hold the head and massage the base of the ear. Be sure to hold the head or they will shake it all over you. They will like the massage. Then put the towel over the ear and let them shake. Put them on any oral tincture antibiotic or antibacterial combination of tinctures. If colloidal silver was allowed here I would use it, but can’t. For pain, as they seem to be in a little discomfort, use hypericum or a willow bark – St. John’s Wort tincture combination two times a day to make them feel better.

### Salivary Cysts

I get so many calls on this. This is usually seen in a young calf less then six weeks old that has a round cyst on its cheek jaw area. These are usually the size of a shooter marble to a ping pong ball. Quite round, not painful and don’t really bother the calf much. This is a little saliva gland on the inside of the mouth that doesn’t have an opening or duct into the oral cavity. They don’t appear until the calf is a few weeks old as it takes that long for the saliva to build up. My treatment is to ignore them. Once in a rare time, they will become infected. If you tap them with a needle to see the nice clear fluid you then have a good chance that you just started an abscess. What usually happens is one day you look down and they are gone. They usually rupture to the inside as the oral cavity skin is thinner than the outside skin. Ignore them and they will go away. There is usually only one at a time.

### Swollen Jaw Muscles

This is something that appeared in the last ten years where a young calf (nursing calf) will have the muscles swell up on the jaw bone. They look like they have the mumps. It is not the lymph nodes. It’s the actual jaw muscle that is painful. The calf will go off feed and run a fever and refuse to eat. I have put them on apis mel homeopathic. Also use Arnica tincture, willow bark and St. John’s Wort tincture for pain and an herbal antibiotic. You have to sort of shoot these tinctures under the tongue as the calf doesn’t want to open its mouth. They usually respond and go back to eating in a few days. I have no clue what is causing this but I get phone calls and have seen enough of this in the past ten years to recognize it as a definite syndrome.

### Pinkeye

Pinkeye has been around longer than I have – it hasn’t changed much and is a reflection of a poor immune system. This is a bacterial infection that is aggravated by low vitamins, low minerals and trace elements, trauma and flies. The first thing I put pinkeye calves on is free choice kelp to get the colloidal trace elements up. All young stock on pasture should have free choice kelp at all times and you will see little pinkeye. Organic wound sprays with an aloe base work excellent on pinkeye with repeated applications. There is a nosode called New Forest Eye that helps heal pinkeye. Give 2–3 doses when you start to see it. I don’t have a lot of confidence in the commercial pinkeye vaccines. I would rather spend my money on kelp to help the immune system. I have heard at least 50 different remedies for pinkeye. People will throw anything in the eye of a pinkeye calf. My rule of thumb is if I wouldn’t want it thrown in my eye, I’m not putting it in a calf’s eye. When you get a red pimples on the cornea, which means the cornea has ruptured or has a hole in it, the active infection is over. You have a long healing issue ahead of you. Use a little wound spray on occasion. The white is scar tissue that migrates in from the blood supply. The cornea itself has very little blood supply. I’ve seen some really bad eyes clear up enough to have varying degrees of sight return. Eyes heal very slowly. Patience is the word.

### Polio Calves

These are calves usually weaned in the 250–450 pound range and are good looking calves usually eating quite a bit of grain. The name of the disease is polioencephalomyelitis. The brain swells and they go blind and lay down on their side and have their head arched back. Quite often, they are paddling with the front feet. It comes on overnight – fast and BAM they’re down. They have run out of B-1 (Thiamin). This is a fermentation problem in the rumen. Thiamin is a coenzyme used in carbohydrate metabolism. Low cobalt is also a complicating factor. I’ve seen this in a group of calves that were turned out into lush fresh growth pasture. Treatment is very spectacular. They need Vitamin B-1 Thiamin. I used to carry a bottle of pure B-1. Now all the multi-B complexes sold in the feeds are loaded with thiamin. Most B complexes have 100 mg per MI of B1. The recommended dose is 2–3 mg per pound. I would usually go IV with 10 cc in the jugular vein and leave a follow up of 10 cc in for the 2 shots 12 hours apart. I’ve treated these over the phone with farmers that can’t hit the vein and you can get them up with three IM shots. It just takes a couple hours longer. I usually recommend cutting back a little bit on the grain and push a little more forage.
Tetanus

Tetanus is not rare, it is seen occasionally from puncture wounds, and it will show up when a male animal has been castrated by the elastrator (banded) a little too old. They walk around with a dead black sack. In my early days of practice when little pigs ran free on a farm after they were castrated and there was a lot of dust, I would commonly see tetanus. Those days are gone.

Black Leg

This is also a clostridial disease that gets into the muscle by inhalation during a dry spell. It is soil borne: a spore former just like tetanus. The spore tends to like lower farms where a creek flows and floods. This seeds an area down. Ridge farms have less of a problem. It can be seen in the winter if the bedding is dusty. I've seen calves in hutches bedded with corn stalks that are dusty die from black leg. The first sign of black leg is a dead animal. Rarely does it affect anything over two years of age – usually yearlings or younger especially if they are on pasture. The muscles are swollen up with gas. They almost look like bubble wrap. When posting there is a characteristic sweet smell that is emitted. I saw black leg every summer for 36 years during a dry spell. Once a farm is a black leg farm, it is always a dry spell. It is soil borne: a spore former just like tetanus.

Ringworm

This is a fungal disease that mainly affects young animals. This fungus can live in the environment for up to four years. Head, neck and shoulders are common sites. It starts as a little spot and radiates out to about a big silver dollar. It spreads by direct contact. It commonly spreads to humans. A fairly good prevention is to have free choice kelp or salt and do more often than we realize. Calves that don't have any free choice kelp or salt and do more often then we realize. Calves that can die from this thing. The first thing to happen is they would go temporarily blind and stagger. Therefore it was called Blind Staggers. Very loud teeth grinding was also very evident. There would usually be quite a few with it as they shared the oil, paint or putty or old cars with batteries in them. Quite often, diarrhea is associated with it. Because we took the lead out of gasoline, putties and paints, and now the children's toys, we see very little lead poisoning. Still a source is old cars with batteries in them. The green corrosion you see on the lead posts is loaded with lead. Calves just love to lick on that stuff. The treatment is to use the chelating agents EDTA, which was actually developed by the U.S. Navy years ago. The battle ship grey paint was loaded with lead and the Navy painters would develop lead poisoning. The veterinary supply houses do not carry any EDTA any more. The last case I had over the phone, I had a young veterinarian who had never seen a lead poisoning go to a human alternative clinic to get 500 cc to run IV. It usually took two treatments to get them back 100%. What a chelating agent does is tie up the heavy metal and it goes out the kidneys.

White Muscle Disease

This was quite common in my first 10–15 years of practice. It is almost unheard of today. Leaded gasoline would put high doses of lead in crankcase oil in tractors. In the 60s and 70s young stock rarely got minerals, so in the spring when the young stock were let out, having been deprived of minerals and salt, they would drink and lick everything and anything. The first thing to happen was they would go temporarily blind and stagger. Therefore it was called Blind Staggers. Very loud teeth grinding was also very evident. There would usually be quite a few with it as they shared the oil, paint or putty or old cars with batteries in them. Quite often, diarrhea is associated with it. Because we took the lead out of gasoline, putties and paints, and now the children's toys, we see very little lead poisoning. Still a source is old cars with batteries in them. The green corrosion you see on the lead posts is loaded with lead. Calves just love to lick on that stuff. The treatment is to use the chelating agent EDTA, which was actually developed by the U.S. Navy years ago. The battle ship grey paint was loaded with lead and the Navy painters would develop lead poisoning. The veterinary supply houses do not carry any EDTA any more. The last case I had over the phone, I had a young veterinarian who had never seen a lead poisoning go to a human alternative clinic to get 500 cc to run IV. It usually took two treatments to get them back 100%. What a chelating agent does is tie up the heavy metal and it goes out the kidneys.
Kidney Infections

Kidney infections show when a younger animal wants to urinate all the time in little amounts. There may be some blood in it. Temperature is usually around 103. Quite often the infection will also involve the bladder and the urethra. Usually just one animal has it at a time. I know of no prevention.

Treatment: I’ve seen some success with a homeopathy treatment of cantharis. Put them on cantharis for 7–14 days orally. I’ve had even better success with a tincture combo. The literature from years ago talks about juniper berries as a potent urinary antiseptic, so pick a tincture with juniper berries.

These tinctures and pills should be injected. I recommend a tincture of garlic. Another 10–14 days. If there is not totally cleared up, go minimum of seven days, and mend treating the animal for a pathology. I always recommend treating the animal for a minimum of seven days, and if not totally cleared up, go another 10–14 days. If there is a temperature over 103, I also recommend a tincture of garlic. These tinctures and pills should be given orally as the animal may also have a case of vaginitis. When treating in the vulva, I wonder if the nits can stick to the hairs. The female louse attaches her egg onto the hair shaft. I often hear the comment “Since I’ve used free choice kelp on my calves, I haven’t seen any lice.”

Fractures

Leg fractures on young animals heal fast. Newborn calves’ legs will break quite easily at their growing points (epiphysis). Putting on casts is quite successful as young calves heal fast. Always, always put on comfrey and arnica tinctures. 1 cc of each under the tongue four times a day for three to four weeks. Comfrey absolutely speeds up healing of bones and arnica helps the blood and trauma.

Feeding the animals humes and kelp greatly cuts down on lice. There are two ways to treat. A spray with an enzyme that dissolves the exoskeleton of lice has been developed. Repeat in one week because the nits (eggs) are glued onto the calf’s hair and they incubate for a week.

There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base. There are also good essential oil sprays with cedar oil, citrus nera and neem in an oil base.

Lice

A very common problem seen every winter is lice infestation. They can be seen by parting the hair on the neck and front third of the calf.

Calves on kelp free choice have a lot lower incidence of lice. They have shiny, shorter, more oily coats. I suspect that the essential oils in the kelp are changing the hair. I wonder if the nits can stick to the hairs. The female louse attaches her egg onto the hair shaft. I often hear the comment “Since I’ve used free choice kelp on my calves, I haven’t seen any lice.”

Pick a white or light-haired spot and roll it in your fingers to see the skin – the lice are plugged into the skin sucking away. They are an insidious protein drain. A red flag is licking. The calves itch terribly. They get thin, pot-bellied, lose their muscle mass (protein) and become very anemic.

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Hormone Disaster

This was a red flag issue. I started to see in about 1995 along with some of my peer group of older dairy vets. This problem is scary for humanity. The problem was a 400–500 pound heifer would develop an udder full of milk. Pure white milk. Not pus or infection, but milk. This problem never existed before. Yes, we’ve seen little heifers with big udders from an estrogen in moldy feed. I saw this often, but you get Alvolei heifers with big udders from an estrogen in moldy feed. I saw this often, but you get Alvolei heifers with big udders from an estrogen in moldy feed.

Since 1995, I have seen about two of these a summer. No source is ever found. I have traced these and they do not breed. They have enlarged ovaries. I’ve palpitated some of the bigger ones that one can get into and they have advanced reproductive organs. What’s causing this endocrine turn on? Obviously we’ve exposed her to a big dose of hormones somewhere. Hormones work in parts per trillion and there are hormones minimizers, hormone blockers and hormone disrupters we have now manufactured. This is scary to me as I have three daughters.
Stray Currents

Calves living in a negative energy field may not thrive. Moving the hutch can make a dramatic difference. Always be aware of where you put your young stock, as quite often stray currents can be carried by power poles, power lines and buried water pipes. It isn’t always disease issues that bother calves. See Organic Valley’s Stray Current publication for more details.

Housing

Big multiple hutches with one joint social area are a good choice. Calves like to be in even numbered groups socially: two, four, six, eight, etc.

Conclusion

The calves are your future. The healthier the calf, the healthier the cow. Years ago, they were relegated to the dark, damp, unventilated pen in the back corner of the barn and put on a cheap milk replacer and farmers hoped they lived. Those days are gone. Calves are a valuable asset that the banker is counting. The feeding of whole milk and plenty of it is the first step in the right direction. Too many calves in the United States are underfed on milk due to the 18 or 20 percent fat in milk replacer. A calf that gets all it wants to drink of milk won’t start eating grains (starters) until it is three and a half to four weeks of age. Amylase doesn’t appear in the saliva until that time to digest grains. I like free choice kelp and humates at all times from birth on separately, lots of Johnes-free milk, and watch them grow. Milk-fed calves have much less scours and pneumonia issues than milk replacer calves.