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Natural Calf Disease Treatments

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.


Good management, recognition and skill are necessary to treat calf diseases effectively

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 7–10 days and is watery, very loose stool and slowly debilitates the animal.
- Cryptosporidium – commonly called Crypto, this is a blue-grey-green scours that is caused by a little one-celled creature that is omnipresent. Crypto has a short life cycle and will hit the calf at 5–8 days. Older weaning calves also will get this as it can slowly build up. Quite often you will see a greenish-blue ball or collar of manure on the calf tail. Crypto, I believe, is the root of all evil for a lot of scours. It's insidious (always there) and if you control that, you reduce the incidence of all other scours markedly.

The last item that comes into the scours picture is coccidiosis, which comes later than most scours. The life cycle of the little one-celled parasite is 21 days, quite often this is associated with blood. Coccidia often gets blamed every time someone sees a fleck of blood in the stool. Wet bedding and poor housing is usually associated with coccidiosis, and it doesn't show up much before the third week of life.

Violent bloody scours – this calf will crash. Manure will tell us what scours it is.

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.

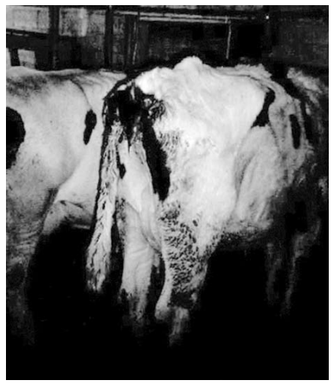
Salmonella – there are a group of large polysaccharides that one can feed that the organism can feed on and cannot detach from and thus will get removed from the system. Liquid humates hit Salmonella hard (Calf Start). Dry humates work fairly well, but you may also use them in a drench or free choice.

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.

The best treatment for scours is a good dry cow program and always, always keep free choice kelp and humates available. Free choice them separately from day one for your newborn calves. I have seen more positive results and gotten more positive feedback from these two items than anything else.



Fresh heifer with coccidiosis – picked up in wet maternity pen.

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.

Pneumonia barn – wet, damp sawdust with very strong ammonia smell.

The other tool I would use for respiratory infections is a garlic tincture or garlic/cayenne combo. There is a tincture of lobelia, slippery elm, oregano and Echinacea. They all help with respiratory infections.

A drench made from plants that dilate the bronchioles and capillaries is quite effective in treating respiratory diseases. These drenches usually contain a combination of mullein leaf (a great expectorant) licorice root, wild cherry bark, coltsfoot, horehound and lobelia. This is made into a tea and drenched at 1 ounce per 100 pounds of body weight. These botanicals can also be fed. Anytime you have a cough that is persistent, use lobelia to suppress it. Any tincture can be given by IV if you are using an IV for energy (glucose or dextrose) or saline. A good procedure is to start a pneumonia animal on IV and then follow up either orally or vaginally.

The four-pronged approach on pneumonia:

- An antibacterial tincture
- A drench of tea with many botanicals
- Any number of the listed tinctures
- Aloe vera liquid drench or aloe vera pellets for immune stimulation.

Essential oils can be effective supporting treatments; they can be misted in the nose. There are a number of essential oil combinations that work very well. Homeopathy is a useful tool if it is early in the infection. I like to use aconite and later I use belladonna. Always treat pneumonia a few days longer then you would other problems to prevent relapse.

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 a small percentage of those around. The bad ones will get worse and eventually die. My treatment is to inject them in the wind pipe with a 12cc syringe and 18 GA needle. Use 10 cc of aloe vera liquid and 2 cc garlic tincture which contains some cayenne (CEG). Then put them on the botanical tea to get the expectorant effect. I will only do this twice about 4–6 days apart. Some will continue to go downhill, but if the lung damage isn't too bad you can turn a few around.

Poor ventilation and wet bedding – pneumonia waiting to happen!

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 puss, 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 antibiotic 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 hypercium or a willow bark – St. John's Wort tincture combination two times a day to make them feel better.

Watch for moist and weeping ears, or a calf walking around with its head tilted to one side.

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 and feed and run a fever and refuse to eat. I have put them on apis mel homeopathy. 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 pimple 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 polioencephalomacia. 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 so commonly used are loaded with thiamin. Most B complexes have 100 mg per Ml of B-1. The recommended dose is 2–3 mg per pound. I would usually go IV with 10 ccs in the jugular vein and leave a follow up of 10 ccs 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.

Sheep down with tetanus.

Tetanus is a spore former in the clostridia group of bacteria. The spores will live in the soil for decades. Dry, dusty weather brings the spores out. The best way to stop tetanus is let it rain. Horses are very susceptible to tetanus. There is no treatment – when they are down with tetanus, it's over. It is best to prevent tetanus with a vaccine or a nosode.

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 black leg farm. There is no treatment – vaccination is the prevention and very effective.

Black Leg animal – Air-filled hemorrhagic muscle.

Face with no hair – skin surface is covered with Ringworm

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 for young stock. Treatment is liberal amounts of the standard aloe based wound spray carried by many companies; use it often. A nosode bacillinium works well – give two doses orally a week apart.

A tincture of calendula and thuja topically and orally twice a day helps heal the skin and re-grow the hair. Ringworm is a wintertime problem. Sunshine always helps clear it up.

Photosensitization

The two most common sources of photosensitization are St. John's Wort and Buckwheat. The white hair all sloughs off creating an ugly sore. The animal needs to be taken out of the sunlight and put on a 60–90 day regimen of tincture of St. John's Wort. They will desensitize themselves. For ease of treatment, I would have the St. John's Wort tincture put on the feed.

Photosensitivity – white area dead, dry and sloughing

White Muscle Disease

This was quite common in the late 60s and early 70s when selenium wasn't being added to the mineral. This affects calves from newborns on up. If the calves die shortly after birth, then you must look at the dry cow ration. The muscle of the heart will have pronounced white streaks. It will appear also in the muscles of the hind legs. This disease is very apparent on postmortem. Older calves will often go down. Have minerals and supplements available which contain selenium. This has reduced white muscle disease markedly in recent years. Prevention and treatment is injectable selenium and Vitamin E. I see higher levels of selenium used all the time with no negative results, but be careful not to overdose injectable selenium. I have seen calves die from overdosing them on selenium shots. They make two concentrations. One is five times stronger then the other. I also witnessed a cow free choice herself on a bag of selenium premix that was placed in front of her. She sloughed all her hooves and had to be put away because she could not get up and was in extreme pain.

Lead Poisoning

This problem was 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 mineral 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 anymore. 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.

Water Engorgement

When calves are weaned and given free access to unlimited water, a few will drink and drink until they become engorged. They can die from this and do more often then we realize. Calves that don't have any free choice kelp or salt and mineral tend to do this. If you see this problem, give them some apple cider vinegar and honey, about ½ ounce of each per 100 pounds. For those that are already engorged, give this treatment every four hours. To prevent engorgement, keep minerals, kelp and salt available free choice to all young stock.

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. There are many tinctures now that have a very good kidney treatment. My favorite is a combination of juniper berries, chaparral, golden seal, watercress and plantain. Kidney infections have a complicated 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, this will irritate the vaginitis.

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. 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.

Louse-infected calf

Feeding the animals humates 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, citronella and neem in an oil base that have recently been developed. I am not a big fan of DE (diatomaceous earth) for lice as it is not safe to breathe for the animal or human. It acts like asbestos in the lungs. It also will not work very well on the underside of the animal.

Clean the pen out and lime it down or spray it with a mild hydrogen-peroxide. If the calf is anemic, it should be given iron shots and B vitamins, both can be injected.

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."

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 two times a day for three to four weeks. Comfrey absolutely speeds up healing of bones and arnica helps the blood and trauma.

Both front legs broken.

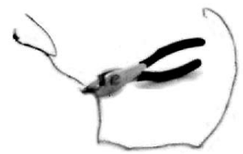
Deer fawn with splinted fractured leg.

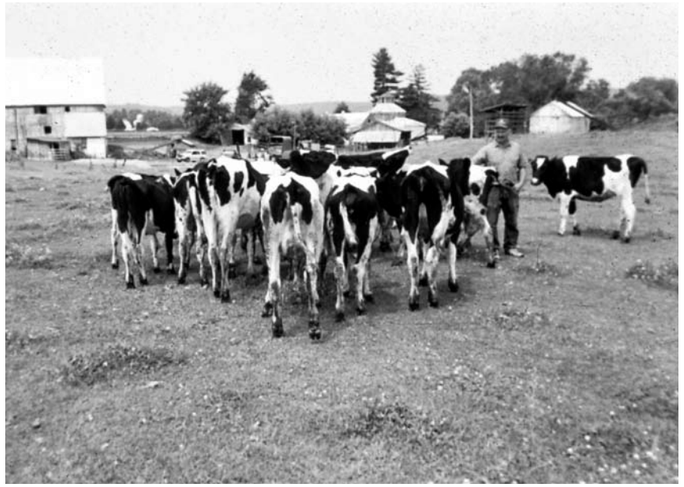
Circular Wounds

Circular wounds are either rubber bands, twine or wire that need to be removed. Treatment is wound spray and arnica tincture.

When you see a wound all the way around the neck, leg or any extremity, always, always be suspicious that something is buried. I've seen rubber bands on dogs and cats and dairy calves where somebody put a rubber band, usually a big one, on that wasn't real tight initially, but as the animal grew, it got tight. Always probe with a disinfected forceps. Sometimes they are very deep. Twine string will do this also. If it is not all removed, it will continue to be a problem. Use wound spray after removal to heal up the lesion.

Circular wound on a beef calf. Below is the wire that caused it.





Unbred pre-estrus heifer with an udder with milk.

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 puss 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 growth and a big udder, but no milk. A second udder growth is from red clover in blossom. The blossoms are loaded with four estrogens and in a matter of two to three weeks, you can see udders on heifers grazing red clover blossoms. Sucking can cause udders to flair up with infection and puss, but not milk.

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

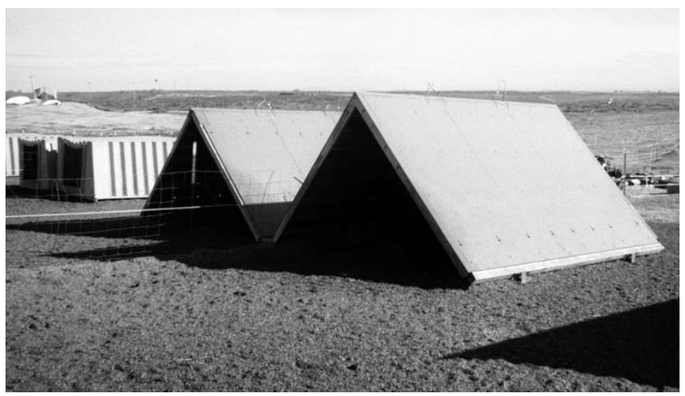
Calves living in a negative energy field may not thrive. Moving the hutch can make a dramatic difference. Always be aware of where you put your young stock, as quite often stray currents can be carried by power poles, power lines and buried water pipes. It isn't always disease issues that bother calves.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

Calf living on a ley line, drinking mud and urine, but will leave milk.

Same calf six weeks later after being moved from ley line – a dramatic turn-around with no medication!

Above: Homemade duplex hutches for two calves on each side, plenty of freedom.

Below: Larger housing units for groups of calves.



Old-type narrow hutch, not recommended anymore. Too small, not humane, calf cannot turn around, tied to chain.

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.