

75TH ANNIVERSARY

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# Fertrell®

SINCE 1946

**Better Naturally!**

## Notes & Quotes

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#### *Our Mission*

Your trusted partner; creating superior products for healthier soil, plants and animals. Healing the earth and feeding the world  
- *Better Naturally!*

## March Special Fertrell Green Potash

Concerned About Low Potassium?

We couple zeolite and our very own kelp source to provide your plants with ample amounts of potassium and soil conditioning power!

It will feed your plants adequate potassium all season long!

**\*10% off through March 31st.**

Contact your local Fertrell Rep. or Fertrell's main office to get further information on Green Potash.  
\*Restrictions Apply

75TH ANNIVERSARY

# Fertrell®

SINCE 1946

**Better Naturally!**

**PRODUCER OF NATURAL & ORGANIC  
FEED SUPPLEMENTS & FERTILIZERS.**

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## Pros of Probiotics

By Alyssa Walsh

Probiotics are getting more and more attention worldwide. The reason is because we're starting to better understand the major benefits of adding probiotics to livestock feed. These microorganisms are believed to have many benefits including better nutrient utilization and improving immune function for all classes of livestock.

The digestive system is made up of different organisms, and these organisms are called either intestinal flora, gut flora, or microflora. This microflora can be separated into 2 major groups: good bacteria and bad bacteria. Both of these populate the digestive system at all times. Since both good and bad bacteria live in a particular balance, issues that cause a disruption in this balance can result in digestive upsets and problems like coccidiosis and scours. Disruptions can be caused by things like changes in diet, antibiotic use, or ingestion of pathogens like coccidian protozoa that causes coccidiosis.

Probiotics promote the good bacteria in the gut. Supplemental probiotics in feed helps maintain good intestinal health by stimulating the growth of good bacteria. Probiotics do this by preventing the proliferation of bad bacteria. These good, microscopic bacteria help the digestive system work more efficiently, resulting in a healthier animal.

All of Fertrell's Nutri-Balancers have added probiotics. If you've looked at the ingredient list on any of our labels, you've probably come across the list of different fermentation products. Your first thought was likely "How in the world do I say that word?! And what are they?" Well, these fermentation products are probiotics!

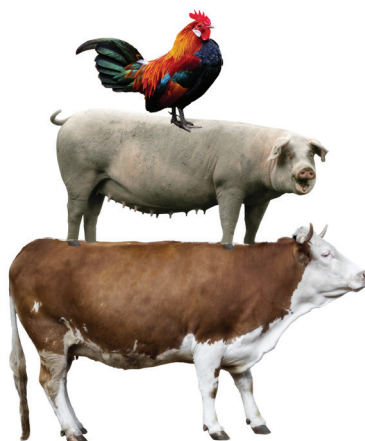
Lactic acid bacteria are the most commonly used probiotic, and they are in all of our Nutri-Balancers. Lactic acid bacteria include *Lactobacillus acidophilus*, *Lactobacillus casei*, *Lactobacillus plantarum*, *Enterococcus faecium*, *Bacillus li-*

*cheniformis*, and *Bacillus subtilis*. These strains of probiotics have many benefits.

For dairy cows, probiotics have the potential to improve dry matter intake and increase dry matter digestibility, which will improve milk production. Intestinal health will also be better, meaning more nutrients can be absorbed, helping with feed conversion. Cows fed probiotics tend to be healthier and have a better chance of fighting off mastitis and other infectious diseases. Lastly, some research has shown that feeding probiotics can help decrease rumen methane production.

For pigs, lactic acid bacteria are beneficial for helping prevent scours during weaning. Some larger commercial operations have even switched to using probiotics in place of antibiotics during weaning. Adding probiotics to pig feed has also shown to improve digestive health, leading to better feed efficiency and improved carcass quality.

For poultry, supplementing with probiotics with lactic acid bacteria has shown better feed efficiency, improved egg production, better egg quality, and greater resistance to illnesses.



To summarize, the pros of probiotics are improved digestion, improved production, and improved immune function. All of this results in a healthier animal and a happier farmer!

Spring is HERE! Be Ready With...

# NUTRI-SIL

Forage Inoculant - Making Forages Go Further

**\*10% off during March**

*Restrictions apply.*

With a custom blend of live beneficial bacteria Nutri-sil will control and direct the fermentation of ensiled feeds. Now contains Buchneri bacteria!!

**Available in:**

**Water Soluble**

*Delivering not less than 20 billion colony forming units per gram total bacteria*

**Dry Blends**

*Delivering over 90 billion colony forming units per pound of total bacteria*



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*10 % discount for any orders placed by March 31st 2021*



## Animals Thrive on Thorvin

Thorvin for Animals is nature's most complete source of bioavailable minerals, vitamins, and beneficial phytonutrients. Harvested from the cleanest kelp beds on Earth and geothermally dried, it's literally the "World's Finest Nutrients." What does that mean for you and your animals? Kelp, specifically *Ascophyllum nodosum* (Asco), the species in Thorvin, provides a range of benefits when used as a feed supplement to livestock. Feeding your livestock kelp means you are committed to their optimal health.

Research has shown that feeding kelp to livestock provides stress-relieving properties, such as better heat tolerance and increased nerve transmission, essentially aiding in calming anxious animals. Boosting the immune system provides increased blood flow, a healthy lower gut, and less *E. coli*. A better gut environment results in better nutrient absorption. Healthy animals

breed back faster, resist pink eye, hoof rot and other common maladies.

And, if that isn't enough to convince you that kelp is great for animals, Virginia Tech also released a study where kelp helps to negate fescue toxicity.

What does that mean for you? It means your livestock will have less health issues, higher productivity, reduced vet bills, and improved profits, all for just pennies a day. Put simply, Animals thrive on Thorvin. And it's 100% certified organic and sustainably harvested.

With Spring right around the corner, don't forget that Thorvin is also great for soils and plants, and did you know that it can even be added to compost piles for higher vitamin and nutrient content. Thorvin re-mineralizes soil and contains nutrients essential for plant growth and development. So, Soils and Plants thrive on Thorvin too!

## Kelp Meal

**A Dual Purpose Product**  
**10% off during April\***

\*Restrictions Apply



### Kelp for Soil

- Kelp naturally contains plant growth stimulants
- Lots of micro nutrients
- Helps to repel insects

### Kelp for Livestock

- Promotes Better Hoof Condition
- Supports Thyroid function
- Boost Immune function



### The Fertrell Pride Tuff Mineral Feeder

**A 3-compartment mineral feeder. Can accommodate larger blocks up to 12 inches square. Also holds 200 lbs of loose supplement level-full.**



**10% OFF during April and May**  
**While Supplies Last**





## Ready for Pasture?

### By Jeff Mattocks

I don't know about you, but I am ready for livestock to get back to grazing. Hay, haylage and balage with any decent quality was in short supply in many regions. It will be relieving to the cows, farmer and checkbook to get back to grazing. Hopefully some of you planned ahead with some winter small grains that will allow you to go to pasture a little earlier than waiting for regular pasture grasses to be ready.

Most of you are aware of the dangers of early grazing season. Bloating, Grass Tetany, Diarrhea, high Milk Urea Nitrogen, and so on. While it is an exciting time of year to get the cows back on pasture, there are dangers. Be prepared, plan ahead, be ready and get your cows ready for all that great forage.

Where do the dangers come from? Mostly from high nitrogen levels in the plant tissues. Why is it nitrogen and not protein? Early in the spring the grasses shoot up quickly from winter dormancy. When this happens, the plant brings a lot of winter nitrogen out of ground as well as absorbing nitrogen from the air. So, the plant is full of nitrogen! The nitrogen has not yet been converted to a true protein until the plant converts it to protein. The plant will need some warm temperatures and sunlight to start the conversion from nitrogen to digestible protein. Spring times can often be cloudy, raining, and cool. All of which slows down the transformation from nitrogen to protein. This type of weather also slows down the plants ability to produce sugars. Sugars and carbohydrates are also critical for proper plant digestion.

Preparing your livestock for spring grazing. Since I know you are going to put those cows out as soon as there is enough grass or maybe not even enough, plan to increase the magnesium in the cows ration 7 – 14 days before you start grazing. I prefer magnesium sulfate. Why magnesium sulfate? The magnesium helps to control excess

nitrogen release in the rumen. The magnesium is also a mild laxative that will help prevent bloating and rumen impaction. Why sulfur from the magnesium sulfate? I find that most livestock rations are deficient in sulfur. We don't have the sulfur levels in the forages that we used to. The sulfur is essential for forming amino acids. Amino acids are the building blocks for true proteins. Sulfur will promote the formation of sulfur containing amino acids and proteins. Sulfur is key for the formation of Methionine and Cysteine. Interestingly enough, methionine doesn't work effectively with cysteine. So, we need both! Methionine, why should you care? A good friend of mine did research to earn his PhD on the effects of methionine in dairy cattle. Surprisingly he found that a small amount of supplemented methionine not only increase milk production methionine also improved reproductive performance. Who couldn't use a little better breeding? Hopefully all of you have applied sulfur to your soils to improve forage protein digestibility. I don't see many soil tests that don't need more sulfur for plant health, protein formation and animal health. The last suggestion I would like to make in preparation for grazing season is hold your livestock until early afternoon before letting them on pastures. This practice will reduce the risk of bloat, impaction, grass tetany, staggers, etc. The grass or plant has a chance to start converting nitrogen to protein and form some sugars.

Okay, going to grass, what to remember? 1. Increase magnesium and sulfur in the animal's diet. 2. Increase the sulfur in the soil. 3. Try to hold animals off until afternoon for early grazing. 4. Be sure to have some appropriate free choice minerals with magnesium and sulfur available in easy to access location. (not the corner of the holding area).

Minerals to consider for early grazing season; Grazier's Choice with Magnesium or Grazier's Choice with Copper and Magnesium. Many of you are familiar with Grazier's Choice already. Fertrell has added to the line-up of Grazier's

Choice. We have seen the need to offer some with copper to help control internal parasites and anemia. We have also seen the need for Grazier's Choice with Magnesium for early and late grazing seasons when the grasses are lush. Evaluate your herd and their ration to see which one better fits your needs. Feeding higher Magnesium is most important for the first 30 days of grazing and the last 30 days of grazing. These periods have the highest likelihood of grass tetany, bloat, etc. Get'em ready for grazing! They are as anxious as you are. Happy Grazing!

## Crop Rotation

### By Oin Moyer

Managing vegetable production organically is no small task. There is a slew of obstacles you must work through in order to produce healthy, nutritious, and good-looking vegetables. Insects, weather, soil borne diseases, and plant diseases can all present challenges to a grower throughout the season. Here we are going to get back to basics, because one of the first lines of defense against all of these is a designated crop rotation. Before we can get really exact on breaking down what we plan to grow in our rotation, lets be sure we know how to group our vegetable crops...

- A. Nightshade Family – Solanaceae (Tomatoes, Potatoes, Tomatillos, Eggplants, Bell & Hot Peppers, Okra)
- B. Morning Glory Family – Convolvulaceae (Sweet Potatoes)
- C. Gourd Family – Cucurbits (Cucumbers, Musk Melons, Zucchini, Pumpkins, Squash, Gourds)
- D. Goosefoot Family – Amaranthaceae (Beets, Spinach, Chard)
- E. Sunflower Family – Asteraceae (Sunflowers, Artichoke, Lettuce)
- F. Cole Family – Brassica (Cabbage, Brussel Sprouts, Cauliflower, Kale, Collards, Radishes, Kohlrabi, Rutabaga, Turnip, and Mustard)
- G. Onion Family – Allium (Onions, Garlic, leeks, Chives)
- H. Legume Family – Leguminosae (Peas, Run-



ner Beans, Bush Beans, Fava Beans)

I. Grass Family – Poaceae (Corn, Millet, Rice, Wheat, Rye, Barley)

J. Parsley Family – Apiaceae (Parsley, Carrots, Parsnips, Cilantro, Celery)

So now we all know basically where the most common vegetable crops fall in their family groups. Did some of those surprise you a little?

As a basic rule you will not want to plant crops in the same family in the same spot more than once every three years. This can be a challenge for many growers especially in high tunnel production. There are still a few options here; instead of just having one high tunnel for tomatoes you may want to consider putting up two or three smaller tunnels which will enable you to rotate on an annual basis to avoid buildup of soil borne diseases like club root, fusarium wilt, or verticillium wilt. By lengthening the rotation, you will reduce the likelihood of these kinds of diseases building up. If having multiple tunnels is not an option, it may be to your advantage to move the tunnel frame every few years. Although this is a lot of work and might seem extreme so is constantly battling with soil diseases and fertility issues inside a high tunnel.



A good way to start planning your rotation is to write down all the crops you intend to grow and draw it out on a field map. Save this map so that next year you can base your rotation decisions off of where everything was planted the prior growing season.

It is a good idea to try and follow a heavy feeder (Nightshades, Cucurbits or Brassicas) with a

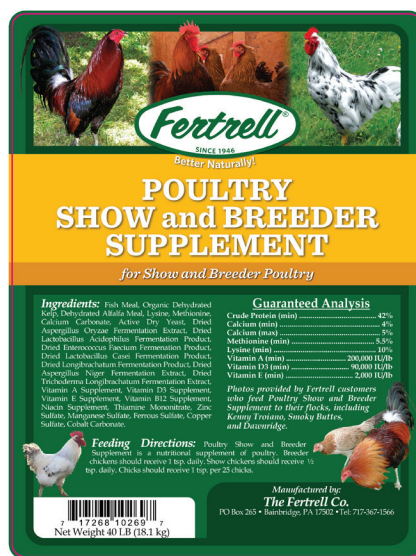
lighter feeding crop (Sunflower family, Legume family or Parsley family). Alternating these groups will help to keep the soil from becoming depleted in one nutrient or another. Remember to pull soil tests and consult with Fertrell for both compost and/or fertilizer recommendations according to your crops needs. By having a well-designed crop rotation, you will increase soil health, plant health, and ultimately your seasons harvest.

## Product Changes

### New product

We recently have added the Fertrell Poultry Show and Breeder Mix to our product line.

It is available in a 10 lb and 40 lb bags on our Shopify store online.



We appreciate the success stories our customers share on the Poultry Show and Breeder Mix "Just an update on the results for your feed formulation, as I said I was basing it on the modern hatchability Pre your feed formulation, we used a well-known micro pellet for breeding and showing and we were running around 32 percent hatching. After using your formulation our moderns are running at 95 percent hatching rate, very impressed but not only that, the survival ability after been born, has been increased across the board, there has been a noticeable increase in them with strong viable chickens. Thank you

very much, Stewart Grant, Australia"

"They are looking good coming out of the molt, nice red heads and shiny, wet looking healthy feathers. I have been using just a little spray of cod liver oil just enough to help the vitamin powder stick to the feed better. I have noticed they must really like the taste of the vitamin powder cause some of them wasn't eating certain parts of the grains and now after using the vitamins, they eat the whole 4.0 ounces I give them a day without leaving any of the feed what so ever. I also took and divided the vitamins up in what I use a day in vacuum sealed bags and keep them in the deep freezer to keep them fresh. I get a pack out of the freezer as I need it. But they seem to be doing really well So far. And I have for a fact seen weight gain, but this could be from them eating all the feed I give them. Just thought I would give you some feedback and let you see and know how they were doing thus far. Thanks.



Frank Bradley."

### Name changes of products

We are changing the name on some of our feed supplements:

Swine grower to Swine Nutri-Balancer  
Sow Premix to Sow Nutri-Balancer  
Beef Balancer to Beef Nutri-Balancer  
Same great formulas, we are realigning these with our other feed supplements.

### Discontinued products

The following products have been discontinued due to lack of sales:

Fertrell Invigorate, Protein pellets, Breeder Mix, and Homeowner blend (all 3 kinds)



## News from the Front:

### Welcome our newest Outlet

Roman C Schmucker E10601 A Shortcut Rd.  
Cashton, WI 54619

**Payment options:** Fertrell is accepting credit and debit cards for your convenience as payment options. Fertrell has been absorbing the processing fees for credit card payments and we are not looking to change this process any time soon. With the delay of the mail in recent month, it may be more convenient for you to arrange an ACH payment with your bank, to assure your payment won't get lost and will reach us in time. We will continue to accept checks and money orders as payment options.

### Monthly Specials:

You may or may not have noticed, that all specials have the note \* restrictions apply attached to them and may not be aware what those restrictions are. Per customers request, here are the restrictions: Specials only apply to accounts in good standing, without past due balances or accounts that are on COD basis; specials cannot be combined with any other offer; specials are only valid during the timeframe indicated; discount or special pricing is void if the invoice is paid by credit or debit card.

### Early Order shipments

A friendly reminder, that all early order fertilizer orders must be shipped or picked up no later than March 15th 2021.

**Seed:** we will notify you as soon as the seed shipments come in. Please arrange to include all your seed orders with your next order to free up our warehouse space. – Thank you!

### Orders:

The spring rush is upon us. In order to free up the phone lines, we would like to ask you fax 717-367-9319 your orders or email your orders to: [accounting@fertrell.com](mailto:accounting@fertrell.com) whenever possible. Please expect a confirmation within 24 business hours. If you do you not hear from us, please

reach out to make sure your order has been received. As always, please include a ship to address, as well as any specifics like receiving hours, if appointment or driver notify call are necessary, lift gate or short truck needed, tractor trailer access, off load equipment etc.

## Pigweed Problems? By Sage Dennis

Pigweed is the name used for several summer annuals that plague farmers. They are tall bushy plants with simple, oval- to diamond-shaped, alternate leaves and dense flower clusters (inflorescences). Pigweed can take root, grow to flower, set seed, and then die off before the first frost of the year. They are incredibly aggressive, are tolerant to drought, love hot weather, and thrive in nutrient-rich soils. Also called Amaranthus as all weeds considered “pigweed” are in the Amaranthus genus. Most farmers are familiar with pigweed issues.

Pigweed reproduces entirely by seed. A single



large plant can mature 100,000–600,000 seeds, and populations of 0.1–1 plants per square foot can shed 10,000–45,000 seeds per square foot, or 0.4–2 billion per acre (Massinga et al., 2001; Sellers et al., 2003). This can spell big trouble for a farmer, as missing just one plant can lead to a whole new headache next year. Irrigation or

flood water, manure, and soil clinging to footwear, tractor tires, or tillage tools are common modes of transportation for Pigweed.

The small seeds have minimal nutrient reserves. This means, seedlings can emerge only from seeds located within an inch of the soil surface and are immediately dependent on the soil for readily available nutrients. With proper applications and practices, it is possible to see control by using a corn gluten weed prevention product such as Fertrell's WeedBan. Do keep in mind if you are certified organic. WeedBan is not a product you can use, as it is not certifiable for organic farms. Outside of this, there are tillage and cover crops practices that will need to be used. Smart rotation is a great way to help reduce many weed pressures as monocropping creates an environment for the same weed to thrive time and time again. An example would be following a short-season crop harvested before weeds can set seed so you can manage them would be a great precursor to planting a crop like carrots that are susceptible to weed pressure. Perhaps even using a competitive cover crop that can smother out the weeds is another excellent idea.

If you have a pasture or have fields infested with Pigweed, consider including a tilled fallow period to destroy annual weeds. Set aside a few weeks where you will go in and till the ground to germinate the weeds, then following up every two weeks with another shallow cultivation to kill off the seedlings. This is a time-consuming process but has been shown to yield results. Outside of this if you are not organic, then you can incorporate Weedban into this process. WeedBan inhibits the formation of roots, but it does not prevent seed germination. Generally, when it comes to such aggressive weeds, higher application rates are more ideal and more effective. 20 pounds per 1000 sq. ft is recommended and can be cost prohibitive on larger operations.

All weeds are tough. Pigweed has been a nuisance for a long time and it will continue to be for organic operations. As time goes on, I am sure



the industry will be able to develop more effective and affordable weed management practices and products. However, until that time comes, these methods are some of the most effective forms of control. If you have questions on weed control, do not hesitate to contact your Fertrell Agronomist. Together we can help create a plan that will work for you!

#### References:

Massinga, Rafael A., et al. "Water Use and Light Interception under Palmer Amaranth (Amaranthus Palmeri) and Corn Competition: Weed Science." Cambridge Core, Cambridge University Press, 20 Jan. 2017, [www.cambridge.org/core/journals/weed-science/article/abs/water-use-and-light-interception-under-palmer-amaranth-amaranthus-palmeri-and-corn-competition/C68EB-350C00BAED811F876FEDFF06FE5](http://www.cambridge.org/core/journals/weed-science/article/abs/water-use-and-light-interception-under-palmer-amaranth-amaranthus-palmeri-and-corn-competition/C68EB-350C00BAED811F876FEDFF06FE5).

### Iron Conundrum? By Jeff Mattocks

The question often comes up on how much iron do my animals need, and what about iron in Redmond products? Not always a question, sometimes a statement "All that iron in Redmond salt is bad for my animals". This is doubtful. Somehow or someone has been running around telling people that the iron is too much or will interfere with body functions. Let's look at animal requirements, feed iron content, and how much is in Redmond products. I think you will be surprised to know where all of that iron is coming from.

#### Animal Requirement

The National Research Council (NRC) states that a cow requirement for iron is estimated to be 50 mg/kg, which is the same thing as ppm. We'll use a cow to walk through this, though horses, sheep, and goats are all around 50 mg/kg. So how do I interpret what 50 mg/kg or ppm means? This means for every million parts of total feed a cow eats, 50 of them need to be iron. Cow feed intake/day = 30 lbs, or 13.6 kg  
Iron requirement for a cow is 13.6 kg of feed

X 50 mg/kg of iron = **680 mg of iron per day**  
**Iron Content in Feeds**

Grasses average - 400 mg - If a cow eats 30 lbs that's 5440 mg of iron

Corn silage average - 150 mg - If a cow eats 30 lbs that's 2040 mg of iron

Alfalfa hay average - 700 mg - If a cow eats 30 lbs that's 9520 mg of iron

Redmond Salt label guarantees 300 ppm. If a cow eats 4 oz that's **34 mg of iron**

#### Summary

It is clear that animals are consuming multiple times the amount of iron the book calls for. So how do animals that eat grass all day and not have problems from the iron? It's because the body will only allow so much to be utilized and it excretes the rest (NRC). Redmond Salt is only a fraction of the required iron content - 680 mg of iron required for the cow every day and a full dose of Redmond salt is only 34 mg, clearly not enough to cause a problem, especially considering how much iron your animals are already eating. If there is still concern for too much iron, it may be useful to include a little more of the other minerals that work in concert with iron to keep a proper balance. Those would be copper, zinc, a little manganese and molybdenum.

### Fertrell's Phostrell By Dean Painter

Phostrell is a Fertrell product containing bone char and aragonite that provides a high level of phosphorus and calcium. Its analysis is 0-6-0 and contains 32% calcium.

The bone char component is actually bone meal that has been modified into an activated charcoal. It is used in the food industry to purify sugar and is a source of readily available phosphorous and calcium. The residual sugars in the bone char provide added benefits, because they spur microbial activity in the soil. Aragonite is the other component of Phostrell and it is a calcium derived from sea sources including—sea shells, coral, and ocean precipitates. It has ap-

proximately 33% calcium, no magnesium and very good levels of trace elements. Additionally, both of these components have porous, irregular surface areas which means that they will break down in the soil very quickly. The combination of these two primary ingredients makes Phostrell an excellent source of readily available phosphorus and calcium.

#### Phostrell has several benefits for your soil:

- It is an excellent source of phosphorus and when compared to soft rock phosphate, it provides twice the phosphorous and calcium.
- Plentiful calcium that is readily available to help prevent issues like blossom end rot in fruiting crops.
- Is available in the soil immediately, so it can benefit your plants this growing season.
- The residual sugars from the bone char component activates microbial activity in the soil.
- Contains lots of trace minerals and micronutrients that will benefit your crops.

Typical applications rates of Fertrell's Phostrell are 6–12 lbs. per 1000 sq. ft., 250–500 lbs per acre, or as required per soil test results.

Phostrell is a unique fertilizer blend available exclusively at Fertrell in bags (50 lbs.), totes (2000 lbs.), and loose bulk (min. 2000 lbs.). Contact your Fertrell dealer or salesperson to inquire about pricing and delivery.

**Phostrell**  
a Fertrell product containing  
bone char and aragonite.  
Provides a high level of  
phosphorus and calcium.  
Its analysis is 0-6-0 and  
contains 32% calcium.  
**10% off during April 2020\***  
\*Restrictions Apply



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75 YEARS!

## Introducing Dr. Paul's Quartely Specials

10% Off through March 31st, 2021



**Aloe C**  
Whole-leaf  
organic aloe  
vera, ascorbic  
acid, rose hips.  
Available in  
1 gallon jugs.



**OLS-M**  
Organic grain  
alcohol, oregano,  
lobelia, slippery  
elm, mullein and  
organic apple  
cider vinegar.  
Available in 2, 8,  
and 32 oz bottles.



**CEG Tincture**  
Cayenne,  
echinacea, and  
garlic. Available  
in 2, 8, and 32 oz.



**CGS Remedy**  
Elecampane  
root, walnut leaf,  
black walnut  
hulls, mugwort  
and wormwood.  
Available in 60oz,  
5 qt, and 15 lb.



**Dull It Tincture**  
Organic alcohol,  
Organic apple  
cider vinegar,  
white willow bark,  
st. johnswort,  
chamomile,  
arnica, and fennel.  
Available in 2 oz  
and 8 oz bottles.



**Calf Start**  
MFG 150 OMRI  
approved, tinctures  
of garlic, slippery  
elm, and cayenne  
and vitamin C  
in organic grain  
alcohol. Available  
in 32 oz, 64 oz, and  
1-gallon bottles.