

# How a Bio-stimulant can Increase Production and Profits

By Paul Schneider Jr.,  
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"If something sounds too good to be true, it usually is." This is what Leonard, a farmer in northern Florida, said about the bio-stimulant called GroPal Balance.

In fact, as the owner of AG-USA, I hear, "This sounds too good to be true" quite a bit. I agree: it does sound too good to be true. But these are things our customers are reporting!

## Nothing ventured, nothing gained

In spite of his doubts, in March of 2016 Leonard went ahead and used GroPal Balance on his pastures. Leonard did get the necessary 1.1" of moisture to get GroPal Balance working in the soil, but after that the weather turned very dry. In November of 2016 I drove down to Florida and had the chance to speak with Leonard, and he told me his story.

He had lived for 30 years on his farm, so he was well aware of the health of his fields. He said that he applied GroPal Balance, then throughout the year he kept looking for the down-side, but it never came. His pastures continued to do much better than his neighbors' pastures.

Leonard commented that GroPal Balance seemed to help drought proof his pastures. After seeing how well it worked, he expressed an interest in being a GroPal Balance dealer. Many others have also told us just how well GroPal Balance has worked on their fields.

## How a bio-stimulant works

A bio-stimulant is a product that stimulates greater microbial activity in the soil. GroPal Balance contains 70 aerobic bacteria, including nitrogen fixing bacteria. It also contains numerous fungi, including mycorrhizal fungi. But GroPal Balance isn't a biological. It is a bio-stimulant. It is primarily a food source which helps to get its microorganisms established in the soil.

GroPal Balance contains GroPal sea mineral concentrate, fish and kelp, humic and fulvic acids, molasses, plus a good number of other ingredients. It is formulated in such a way that the micro-

bials are "put to sleep", and are only awakened when they come into contact with the soil. Even after it is mixed with water, GroPal Balance still has a 5 year shelf life, so don't worry if it sits a few days in the spray tank. Just park it in the shade, out of direct sunlight.

## Why biologicals may falter

For many years AG-USA has sold a top-notch biological. Although we saw relatively good results with it, the results didn't seem to be consistent. Perhaps that is because biologicals need certain soil conditions to thrive.

- Microbials need a healthy atmosphere to thrive. Chemical residues, toxins and salts all have a negative effect on soil life.
- Microbials do better when soil pH is balanced.
- Microbials do much better when soil nutrients are balanced.

## Restoring balance to the soil

Look at the soil test results below. Please note that within 4 months of when GroPal Balance was applied, phosphorus and potassium have come into balance with Magnesium and Calcium. You can also see that after only 4 months, sulfur, boron, iron and copper are showing up on the soil test, whereas in the soil test taken before GroPal Balance there wasn't enough available to even show up on the soil test.

After the first year, 90% of balance can be restored to the soil, and it usually takes GroPal Balance just one more year to achieve 100% nutrient balance, not by adding nutrients, but by making what is in the soil more available. As nutrients come into balance, so does pH!

How does GroPal Balance help to restore microbial and soil food web balance? By creating the perfect environment for beneficial microbes.

In sick soil, pathogens and anaerobic bacteria thrive. Harmful nematodes that eat away at plant roots dominate and overwhelm beneficial nematodes. Even though one inoculates with mycorrhizal fungi, when the soil is out of balance it can simply be a waste of money.

GroPal Balance goes to work right away to devour chemicals, plant toxins and other toxins. It remediates salts and flushes them out of root zone. GroPal Balance microbes are quickly established in the soil, and work hard to restore nutrient balance, including pH.

In a healthy soil environment, beneficial nematodes quickly displace harmful ones; good bacteria multiply quickly and dominate the soil. Fungi that couldn't thrive before now create massive fungal networks. Earthworms and dung beetles respond to this healthy environment and fill the soil.

Andrew in Michigan told us that at the end of the season he dug up his garden, and not only found huge root structures, but he also discovered that the soil was filled with white networks of fungi.

## Balancing bacteria and fungi

A few years back I wrote an article in [www.healthy-vegetable-gardening.com](http://www.healthy-vegetable-gardening.com), explaining that healthy soil should have a good balance between bacteria and fungi. However, this balance can be very elusive, because fungi tend to thrive more in forests, not in gardens or in farmland.

I shared that one way that gardeners can overcome bacterial dominance is by applying RCW (ramial chipped wood). This is made by chipping up freshly cut hardwood branches that are 3" or less in diameter. When the soil is mulched with 1" to 2", it will slowly break down and be incorporated into the soil by earthworms, helping to grow fungi in the soil.

However, RCW is quite impractical for the farm. It is a logistical nightmare trying to find enough RCW to treat an acre of land, let alone many acres.

This is the beauty of GroPal Balance. Our bacteria balance the soil, making a wonderful home for our fungi, which quickly multiply and fill the soil.

## The danger of tilling the soil

Fungi networks are fragile. The deeper the soil is tilled, the more it disrupts any fungi networks that may be in the soil. Tilling also releases precious carbon into the atmosphere.

Disking down one or two inches is minimally disruptive. However, the deeper we till from the point, the more damaging it is to soil life.

This is one of the reasons why AG-USA is a proponent of minimal tilling or not tilling at all. We want to see the soil restored to balance and grow stronger every year.

Of course, tilling is necessary for some types of operations. It is used for transitioning from crop to crop, for weed control and to incorporate cover crops into the soil. But just do your best not to go any deeper than you need to.

## The no-till farmer's best friend

One of the greatest problems with no-till operations is compaction.

A few days ago I took an order of GroPal Balance to Bert, a third year customer in South Carolina. Bert asked what things he could look for to see that GroPal Balance was working for him.

We went out into one of his fields and he turned up a spade full of dirt. It was beautiful - crumbly and filled with air pockets. It was the perfect picture of highly structured soil.

One of the greatest enemies of no-till farmers is compaction. By eliminating this problem, GroPal Balance makes no-till farming so much easier.

One of our customers reported that, within 6 months, GroPal Balance took their highly compacted soil and structured it a good 10" into the soil. If you are a no-tiller, it can do the same for you! GroPal Balance microbes add air gaps to the soil, softening it and allowing moisture to soak in.

Air flows down into the soil farther and farther, so that after 4 or 5 months our nitrogen fixing bacteria can produce a wonderful supply of urea.

Weeds are another enemy of the no-till farmer. However, most weeds thrive due to problems with the soil, like compaction, salts, high or low pH, and out of balance nutrients. By taking care of these issues, problematic weeds can become less problematic and easier to deal with. No-till farmers, you will love it!

## The danger of bare ground

Cover crops are wonderful. Not only do they introduce nutrients into the ground and actually help to keep the soil from drying out, but they also protect the ground from the ultra-violet rays of the sun, which threaten to kill the microbes in the top 2" of soil.

But GroPal Balance is a bio-stimulant that takes cover crops to a whole new level. When the soil comes back into balance and mycorrhizal and other fungi fill the soil, the plant begins to sequester huge amounts of sugars to feed the microbes, which in turn provide the plant with a wonderful buffet of nutrients while highly structuring the soil at the same time!

When carbon sequestration is activated, it means that cover crops will continue the process of soil building, improving soil structure and the accumulation of organic matter. As was mentioned in one of my earlier articles, Cation Exchange (CEC) is tied in directly with organic matter. As organic matter goes up, so does CEC and the ability of the soil to feed the plant.

## Great news for organic farmers

It is finally here, GroPal Balance O, formulated just for organic growers. GroPal Balance A requires a soil test, but not our new formulation. GroPal Balance O is listed with WSDA, plus it doesn't cost a penny more than GPB-A!

## Bio-stimulants can mean more money in your pocket

As a bio-stimulant, GroPal Balance helps to restore balance to the soil, resulting in more production, which means greater profitability. The feedback we have been receiving from farmers is so very encouraging, but for those who haven't tried it, perhaps GroPal Balance sounds just too good to be true. If that is you, I encourage you to at least give it a try. Who knows, in a few months we may be highlighting you in one of our Graze articles!

Write us or call 678-378-2911 today and request a free information packet, or learn more at [www.AG-USA.net](http://www.AG-USA.net)

# GroPAL Balance

Seaminal  
**GroPAL**  
The Grower's Best Friend

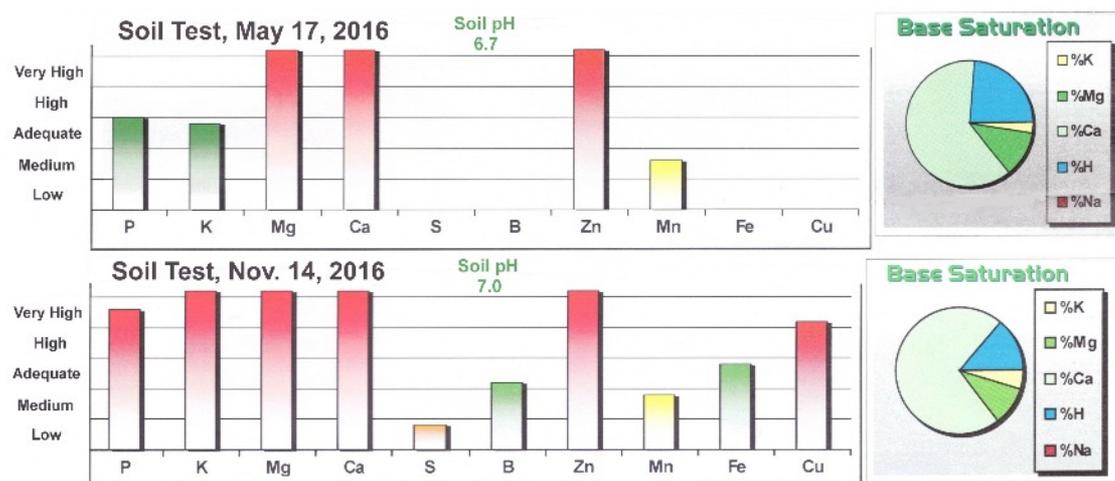
with



## GroPal Balance is like a center pivot for dryland farmers!

### Replaces LIME and other fertilizers

The following before and after lab tests show how GPB makes soil nutrients available. Even though nothing else was applied this year but GPB, within only 5 months the NPK and trace minerals had gone way up. The nutrients are already in the soil. GroPal Balance simply works to free them up.



Call AG-USA now at 678-378-2911 for more information, or go to: [www.AG-USA.net](http://www.AG-USA.net) WSDA listed for organic use.

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