

# REGENERATING AGRICULTURE

Grow Vigorously & Prosper

**KEYSTONE  
BIO-AG**

A Keystone Bio-Ag Newsletter

Volume: 1 / Fall 2018

## SEASONAL CALENDAR

### OCTOBER

- ▶ Fall Spraying service now available.
- ▶ Take soil tests from all produce fields (with C/N Ratio test)
- ▶ Oct. 17; Conference Call with John Kempf @ 7 pm EST. Foundations of plant resistance (669) 900-6833; Code 309722815

### NOVEMBER

- ▶ Nov. 7; Conference Call with John Kempf @ 7 pm EST. Planning next year's planting program (408) 638-0968; Code 789784212
- ▶ Nov. 21; Conference Call with John Kempf @ 7 pm EST. Nitrogen Management (669)900-6833; Code 467182534

### DECEMBER

- ▶ Keystone Bio-Ag Prepay discount begins.
- ▶ Order Keystone Greenhouse Media for starting plants.
- ▶ Dec. 5; Conference Call with John Kempf @ 7 pm EST. Preventing fungal diseases in stone fruit production (408) 638-0968; Code 614941497
- ▶ Dec. 19; Conference Call with John Kempf @ 7 pm EST. Benefits of soil microbial inoculation (646) 876-9923; Code 295437293

## THE TRIALS AND TRIUMPHS OF ECO FARMING AND CONSULTING



*Dying crab grass*

Welcome, and boy oh boy where do I start? 234 words to write and it should make sense. Why not start with Regeneration, for the sake of this article we will talk about the soil, and why regenerating soil results in much less weed seeds germinating and even the ones that do, do not thrive at all. See photo below.

Most of us are always looking for that one silver bullet, that one thing that is easy to do. Well this is it; if your soils are regenerating, things get a whole lot easier. Now that field didn't always look like that; it grew its share of weeds and definitely has tons of weed seeds yet.

The crabgrass looks as if it was sprayed with roundup, but it wasn't, or the alfalfa would be yellow too. Fusarium is eating away the roots and photosynthesis is completely shut down. It is actually the exact same process that happens with roundup application. This is the power of regeneration!! This is the call to action!!

It's much easier than you think, these are the two most important things to balance, balanced biology and balanced Carbon to Nitrogen, soil regeneration will not happen without these two. It's something that all good composters know and practice, and why Humus compost is a standard in all our dry Fertilizer mixes.

*Samuel L. Gook*



# FIELD / RESEARCH NOTES

We believe that healthy plants resist diseases and insects. Years ago William Albright said that “insects are nature’s garbage collectors and diseases are her cleanup crew”. This is so true; they are here to remove the inferior food that is causing cancer and other skyrocketing illnesses. But Americans eat this inferior food every day.

But what’s really ironic is that agriculture has it all wrong; we try to kill the insects (the symptom) rather than fixing the problem. Now people say we need to become sustainable. Wrong again! We dare not sustain the current model of agriculture when it is possible to produce plants that are resistant to diseases and insects by managing nutrition. Only at such a level of performance am I willing to have a conversation about sustainability.

Observing regenerative principles in action is what is truly inspiring! I also have a passion for the active research and development that we do: exploring new techniques, remediating the areas in which we can improve, and then releasing this information so that you can make proactive choices. This is the type of information that I will discuss more in-depth in our Regenerative Agriculture Handbook, which will be released during this winter.

This year we observed that combining LCP Blend and chicken manure (or mushroom mulch) with some targeted nutritional applications can produce results beyond anything that we have ever seen before. The manure/LCP Blend is best applied in the fall, allowing minerals to be changed into microbial metabolites; the most efficient source of nutrition! The effects of microbial metabolites are a big reason why crops perform so much better in the spring.

It is advisable to sow specific cover crops that fix nitrogen into the soil and help phosphorus and trace minerals availability, etc. Other things like balancing the soil C/N ratio and managing nitrogen are equally as important. Recently University researchers were shocked when they discovered that synthetic nitrogen applications decrease the carbon content of the soil (lime can fall under this category too). Use Amino Acid Nitrogen (which we have found to outperform even Urea) rather than synthetic Nitrogen.

Most plants produce only 15-20% of their inherit potential, with photosynthesis always the limiting factor. This means that each foliar spray needs to address the limiting factor of photosynthesis or it will not respond.

We are using lower product rates (due to EC discoveries) and seeing better responses. We apologize for any negative responses from the high rates.

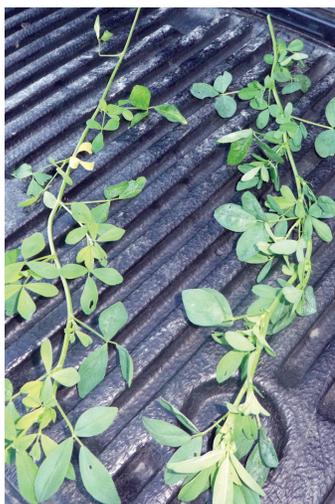
In all things moderation; remember that a short term gain can be a long term pain!

*Melvin F. Fisher*

## FALL DISCOUNT:

Winter King III is the newest generation of Midwestern BioAg alfalfa varieties. Bred for optimum performance on the regenerative soil program, Winter King III was selected from the healthiest, most persistent and highest yielding plants. It has a multi-foliolate leaf expression rate of 86%; an indicator of quality and digestibility. A dark green, tall variety with a dense leaf canopy.

- ▶ \$280.00/bag (12% off if paid by Nov. 1st. OR 9% off if paid by Dec. 24th.)
- ▶ Neighborhood program: Buy full skid / get additional \$15 off per bag.



# GROWING TIPS

## ROW CROPS

Disk or till stalks lightly into soil immediately after corn harvest. Research has shown 10 bushel / acre increase. You can enhance the results by applying the Rejuvenate program.

## DAIRY

Molds and mycotoxins will be a bigger challenge this year. Feeding Xcite and high quality forages will help. Call to be connected to a nutritionist.

## PRODUCE

Sap Analysis on fall crops is very important. Cole crops that don’t have enough energy will get black rot. Feed strawberries now for a better harvest next spring.

## ORCHARD

Exceptional results next year come from investing now. A sap analysis taken now will determine what additional nutrition is required to build high quality buds and fruitwood for next year.

## GREENHOUSE

Keystone Greenhouse Media is formulated for starting healthy plants with all the nutrition that they require until transplanting. We have resolved the issues that caused it to be prohibited by a few certifiers.

## GARDENERS

Excessive applications of manure are often applied on gardens which will result in rapid plant growth but almost no fruit. Call for recommendations. Also take a soil test and sow cover crop.

# PLANNING AHEAD

*Failure to plan is a plan to fail.*

To be successful in life, plan ahead. Know what you want, then figure out how to accomplish it. Without a target you'll miss it every time.

Now is the time to start thinking about applications that could make your operation more successful next year. You need to think about how you can regain some of the carbon that was released as carbon dioxide throughout the growing season.

The crop residue that is left on the ground is FREE carbon. To capture it before it oxidizes into the air, you need to trigger rapid microbial digestion soon after fall harvest is complete. How do you do that?

The most effective method that we know of is the Rejuvenate program, which consists of the following 3 products: Rejuvenate™, Sea Shield™, and Spectrum™. These products can be sprayed directly on the soil this fall.

Rejuvenate™ triggers rapid bacterial digestion and also provides enzymes, enzyme cofactors, and food so that the microbes and bacteria can work more efficiently. Without a food source, microbes can't survive. Customer feedback about Rejuvenate include rapid residue digestion which minimized overwintering of disease spores, looser soil (more oxygen for the microbes), increased crop production, less weeds, and faster release of the soil mineral reserves.

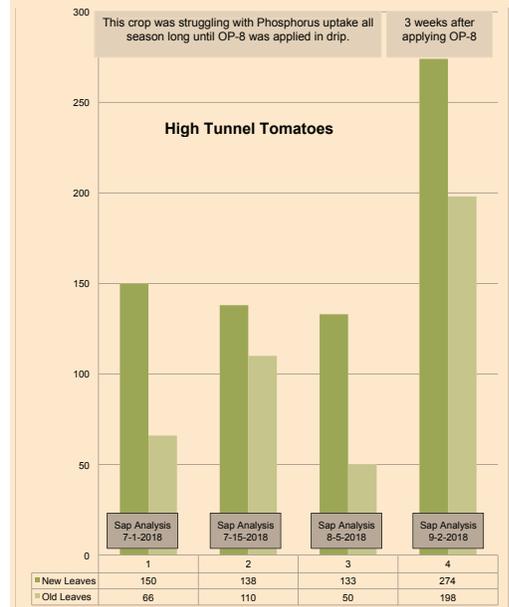
Sea Shield™ triggers rapid fungal digestion and also provides microbe food. Feeding the microbes allows us to inoculate fewer microbes and still get a great response.

Spectrum™ contains 23+ species of microbes, including nitrogen fixing bacteria, disease suppressive bacteria, and also chitin digesting bacteria which attack and kill the larvae of overwintering insects.

There is an additional piece worthy of consideration. There is substantial evidence that chemicals tie-up Phosphorus and certain important trace minerals. OP-8™ contains microbes that digest the chemical residue in the soil and release the minerals that are tied up. If any chemicals were applied on your land in the last 50-70 years, you could benefit from inoculating these microbes.

## PHOSPHORUS UPTAKE TRIAL WITH OP-8

(RESULTS SECURED USING SAP ANALYSIS DATA)



*Melvin F. Fisher*



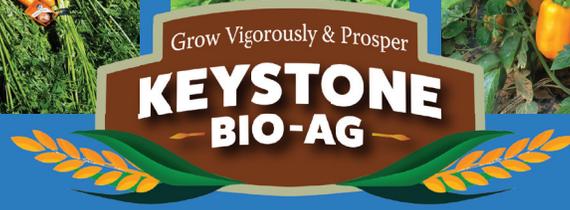
## FARM SPOTLIGHT

A farmer from Lancaster County has been using the program for three years and has seen some excellent responses. His response was "I have much less weeds in both my corn and alfalfa fields. My tobacco is looking pretty good as well - especially for the weather that we are having."

Once you experience cultivating a cornfield only once for the fun of it like Enos did this year, rather than cultivating because it is full of weeds, you know something is working. He is using very little Nitrogen and experiencing better crop production and quality. No herbicides were used on this conventional farm. His goal for next year is to do without any nitrogen input.

He also commented:

*"I wish you would have taken a picture of my fields before I started using Rejuvenate. And I definitely wouldn't want to be without it anymore."*



In everything we do, we believe in thinking differently from the mainstream agriculture. We believe in working with nature rather than against it.

Our approach is that diseases and insects are not the problem; they are only the symptoms of nutritional imbalances, which means that we need to find and resolve the reason why plants do not have a functional immune system.

Keystone Bio-Ag has developed a nutritional management program with which it is now possible to produce plants that are resistant to diseases and

insects. This model, when implemented properly, will always produce great tasting food and feed with high nutritional value. Our guaranteed process enables farmers to reduce or eliminate harmful chemical applications.

We stand by our belief in sharing knowledge, inspiration, and active research through our *Regenerative Agriculture Handbook*, educational meetings, and quarterly newsletters, as well as through our personal on-farm or phone consultations. Our ultimate goal is to help you grow vigorously and prosper.

**RESEARCH & EDUCATION**

**SERVICES & DEVELOPMENT**

**WHOLESALE & RETAIL**

**PRODUCTS**

Invest now for next year. Sap analysis on perennial crops is a great tool to determine what nutrition is needed to produce high quality buds and fruitwood for next year. You can't afford to guess.



Please contact us if you no longer wish to receive our quarterly newsletter.

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