

REGENERATING AGRICULTURE

A Keystone Bio-Ag Newsletter



Volume: 4 / September 2020

SEASONAL CALENDAR

OCTOBER

- 20th. Conference Call @ 8:00 AM ET.*
Dial 712-432-8773.
Access code 53978663#.

NOVEMBER

- No conference call

DECEMBER

- Watch for announcements on our 10% Prepay Program!
- 15th. Conference Call @ 8:00 AM ET.*
Dial 712-432-8773.
Access code 53978663#.
**Conference call topics are announced on the hotline.*

BUSINESS HOURS

Mon. to Fri. 7:30 - 5:00

SAM'S PHONE HOURS

Monday	7:30 - 11:30
Tuesday	10:00 - 11:30
Wednesday	7:30 - 11:30
Thursday	7:30 - 11:30
Friday	7:30 - 11:30

MELVIN'S PHONE HOURS

Monday	7:30 - 5:00
Tuesday	10:00 - 5:00
Thursday	7:30 - 5:00

KEVIN'S PHONE HOURS

Tuesday	10:00 - 5:00
Wednesday	7:30 - 5:00
Friday	7:30 - 5:00

THE TRIALS AND TRIUMPHS OF ECO FARMING AND CONSULTING

Welcome, how are you? Hopefully good and keeping your spirits up in these trying and changing times.

Last year in Sept. I wrote about our no-till tomato experiment and how it was not working out very well, so I thought I'd give an update. Last fall we got the subsoiler in and because of the massive amount of cover crop residue there, he made a real mess of it by dragging it along and then dumping it on piles. So that stopped the no-till business as it was very uneven and I had to till and harrow to straighten it out.

The tomatoes were easier to manage and are doing a whole lot better this year. A couple highlights are we didn't have enough help to keep them picked during the peak and had some that were not picked for 5 weeks, but even so 80% of them were still fine when we got around to them. With Sea-Power and Cycle Plus in the dry blend the Nitrogen and Calcium were a lot easier to manage as according to Sap Analysis - we hardly added any in-season. With Santerra and Key-Factor in drip weekly the phosphorus and silica were very good all along as well.



Because of our yearly issue with spider mites we tried something different once, putting 2 quarts each of Rejuvenate and Cobalt in the foliar a couple times in July, till the

Cobalt on sap test was 20 ppm, but lo and behold we didn't have any spider mite issues - they showed up a little but didn't last long and no damage.

Samuel L. Zook

THE HIGHLIGHTS OF ALFALFA GRAZING

Grazing alfalfa with dairy/beef cows comes with a lot of valuable benefits and also some challenges. I have been grazing alfalfa intensively now for 4 years, but for 6 years prior to that we grazed the last cutting in the fall.

On our grass based dairy farm we focus on diversifying our grass species to be more resilient to weather extremes, (wet/cool or hot/dry) grass such as ryegrasses, orchard grasses and even clovers thrive in wet/cool conditions but are the first to go dormant in dry spells, then grasses such as fescue, sudan and especially alfalfa still do good under drought conditions, which we experienced in 2020. On June 10 is when the rain basically shut off in our region (Central PA) and from the day of this writing (Sept. 9) we had a total of 5.5 inches in 13 weeks which 2 of those inches came in the last week, so we averaged .29" for 12 weeks and we never quit grazing day and night. Fortunately, we were at 100% DM from grazing up till June 30, 50% DM from grazing July 1-Aug 15th, then Aug 16th – Sep 4th 20% DM from grazing. We are now back up to 50% from grazing – alfalfa is what kept our numbers up in the drought.

We run 85-90 cows on 82 acres, 10 acres pure alfalfa, 40 acres alfalfa-grass mix 8020, and the remaining 32 acres is in perennial grasses. Those numbers are very important for a committed grazer.

What we have experienced in the last several years now is the alfalfa stand keep getting better and better with our oldest stand now 6 years old. I was impressed with what was happening. I did some homework and some reading – here is what I learned: the life of the stand is determined mainly by management.

This info comes from University of Wisconsin: If keeping the stand, think about managing alfalfa root carbohydrate levels for winter. Alfalfa uses carbohydrates stored in the root to regrow after each cutting and in the spring. Typically root carbohydrates are drawn down for about 2 weeks after cutting, at which time the plant has enough leaves to produce carbohydrates both to continue growth and replenish root reserves for the next regrowth cycle. Root carbohydrate concentration is maximized at full bloom. Cutting at bud stage results in as much as 25% decrease in root carbohydrate storage. If all cuttings/ grazings are taken at 28-day intervals or at bud stage, root carbohydrate content is replenished at a lesser extend after each cutting. An old recommendation is to let at least one cutting (preferably the third or fourth) go to early flower to rebuild stand condition by increasing root carbohydrate levels.

Lastly, manage the cutting schedule so alfalfa has sufficient time to regrow after the last cutting. Entering the winter with 6-8 inches of regrowth is the worst possible situation. Where snow cover is a surety, it is possible to cut alfalfa so late that it does not regrow and use up any root carbohydrates before winter. Very important information!!

I have a friend in Manitoba, Canada that does a lot of alfalfa grazing. He has stands that are 20+ years old and still 80-90% the stand he had the first 5 years, and his excuse is not mild winters! Occasionally when I call him in the winter I ask him how the weather is. He remarks, we are getting a warm-up or the forecast is saying warmer, but the temps are 30-40 below 0^o Fahrenheit!

My goal is to trample 50% of my volume when grazing especially alfalfa. What effect does that have? A few more things I observed is it's important to clip at 6" after the first 2 grazing, but not after July 15th, just let the cows take the best and leave the rest, it will actually increase leaves per plant by 3-5x because it will branch out of the main stems – not only from the

GROWING TIPS



ROW CROPS

Spraying the fall Rejuvenate program, then incorporating the crop stubble within a few hours of harvesting will give you higher yield potential. Subsoil if needed. Sow cover crop blend.



DAIRY

Take soil tests every 2-3 years. Focus on doing the small things right and some of the big things take care of themselves. Learn about managed grazing – a good way to be the low cost producer.



PRODUCE

We recommend taking soil tests every 1-2 years on intensively cropped fields. If organic, ask for Base Plus test and C/N Ratio. Use the fall Rejuvenate program and sow good cover crop blend.



ORCHARD

Use Rejuvenate program on soil after leaf drop to help prevent overwintering of diseases. Listen to the recent conference call for more information on key highlights of nutrient management on fruit trees and berries.



GREENHOUSE

Test your soil. Subsoil. Remediate high sodium if present.



GARDENERS

Subsoiling and testing your soil is just as important for a garden as it is for field crops. If your soil needs a boost, use 1 pint Rejuvenate and ½ oz. Santerra per 1000 sq. ft. to loosen it up. Sow cover crop.

crowns. Then I like going into winter with stems 12-20 inches. That is where grazing is very unique, where mechanical harvesting is a bit more complicated.

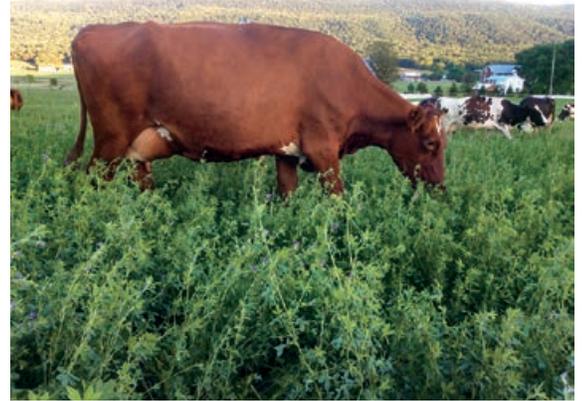
The biggest risk with grazing alfalfa is BLOAT . . . I did lose 2 cows the last 5 years, 1 cow was a fence grazer and didn't know when to quit, the other one was when my cows got through the break wire and got 3 feedings in one night. Check with your KBA consultant to review your soil test, you cannot have a magnesium deficiency or you will have problems. Also never let the cows out with an empty rumen, and also avoid early morning grazing.

Winter King III alfalfa from KBA is the best grazing alfalfa in my experience. In the next newsletter I want to expand on mechanical harvesting and quality parameters, fertility, yields etc.

Never expect a perfect year or experience, but make it your goal to strive for perfection. It keeps us humble and motivated!

Have a great year!

Alvin Peachey



NEWS FROM MELVIN'S DESK

Hi Everyone! Limited space and so much to write – here are a few highlights that might be interesting:

Hotline Update: Since March 2020, we have been doing monthly conference calls and weekly hotline updates. Judging from the number of comments, it seems as if it is helpful to many people – even as far away as Guatemala. We invite you to try it and also participate in sending questions (or topic suggestions) by mail and we will address them on the hotline.

Make your own high-quality fungal compost: Dr. David Johnson describes how to make your own compost with inexpensive, locally available materials. I reference his work on the September 21 hotline recording. (Hotline # on back)

Tips for Loosening Soil: Good biology is the key to loosening soil. What is the key to getting good biology? Treat biology like people: feed them well & ensure breathability with loose aggregated soil. (not de-structured from excessive tillage). How can you feed biology? Sugars/ carbohydrates (derived from plant photosynthesis) are the food that microbes need, so keep the soil covered over winter with cover crops, and treat those cover crops like a cash crop (foliar feeding to raise the brix level) which will feed the microbes. It's possible to get brix levels that are at 9 up to 28 with a single foliar, as experienced a few weeks ago. Spray the Fall Rejuvenate Program, then subsoil to get tight soil loose and productive.

Boron releases Calcium to Crops: A few important roles of boron are sugar movement, insect resistance, preventing splits in root crops such as carrots, and root health. If boron is deficient, plants absorb less minerals – up to 50% reduction in uptake, especially phosphorus. But one other important point is that boron improves calcium uptake and movement throughout plants. I usually say that if I had to choose between calcium or boron (as a foliar spray) to get calcium into plants (calcium that is already in soil but not available), I would choose boron. I would prefer both calcium and boron being used, but inexpensive boric acid (boron) applications in-field trials consistently show crop improvement.

Remediating High Sodium in Greenhouses: High sodium can trigger severe potassium deficiency and results in green or yellow shoulder and blotching ripening. How do you get high sodium levels down? Check out the September 14th Hotline, but here is the short version: subsoil, spread calcium?, irrigate with 10-12" water, apply Rejuvenate, Santerra, BioCoat Gold, Huma Carb, and Spectrum DS. That's the combination for best results. *Until next time, – Melvin Fisher.*

ARTICLES INSIDE:

Trials and Triumphs of Eco Farming and Consulting..... 1

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Our mission is to educate, encourage, and empower farmers to produce healthy crops by supporting them with the products and information needed to make regenerative agriculture successful.



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KBA HOTLINE

Get your weekly inspiration on influencing plant health and seasonal crop challenges by dialing 712-432-8774 weekly. Code 43017557#.

New recording every Monday 7AM. Listen by using Sharing ID's: "year, month, day" when the hotline was recorded. May 4 Example: 20200504

- 20200921 Making your own high quality fungal compost.
- 20200914 Remediating high Sodium levels in greenhouses.
- 20200907 Questions and Answers.
- 20200831 Weeds & What They Tell. Questions about myco fungi.
- 20200824 4 important points for increasing biology in soil.

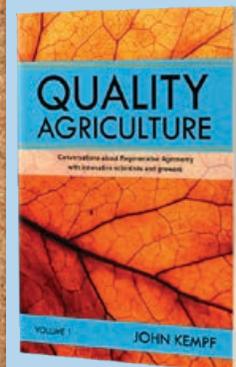
CONFERENCE CALL RECORDINGS:

712-432-8774. Access Code 53978663. Sharing ID: YEAR&MONTH

- 202009 Nutrient Management for Fruits and Berries.
- 202008 Maximizing Soil Health and Productivity.
- 202007 Tips for Successfully Growing Strawberries.
- 202006 Nutrient Management - highlights of the roles of each nutrient.
- 202005 Producing High Fat Content Crops. Increasing Brix.
- 202004 Grow Healthy crops. Why is it important? How do you do it?

Now is the ideal time to have soil tests taken.

Call your rep to get on the list.



NEW BOOK
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