



# Newsletter

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## CaroVail

Agronomy Update

February 26, 2016

### Locations

#### *Auburn*

55 Columbus St  
Auburn, NY 13021  
315-253-7379

#### *Bernardston*

472 Northfield Road  
Bernardston, MA  
01337  
413-648-9900

#### *Niverville*

831 Route 28  
Niverville, NY 12130  
518-784-9166

#### *Oriskany Falls*

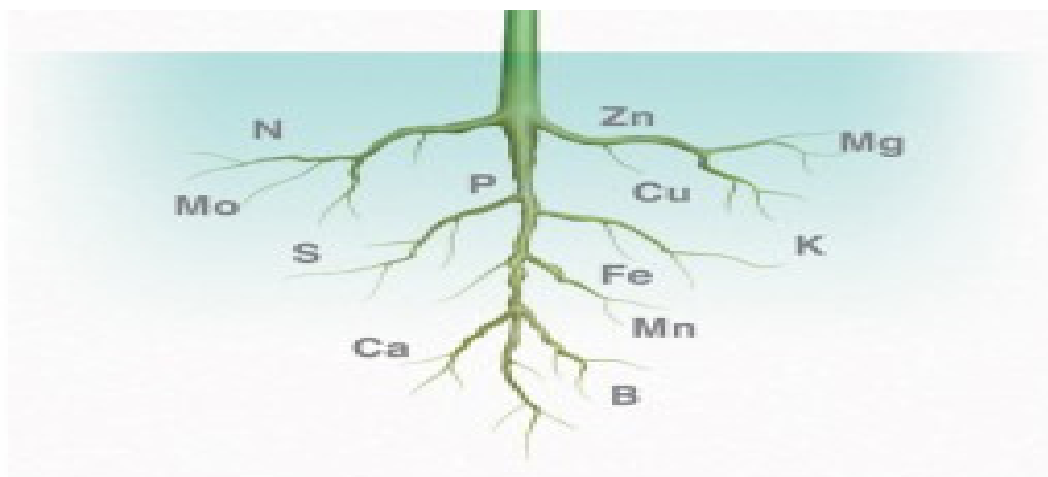
8341 US State Rt 20  
Oriskany Falls, NY  
13425  
315-841-3201

#### *Salem*

4134 State Rt 22  
Salem, NY 12865  
518-854-9446

#### *Tri Valley Crop Ctr*

337 State Hwy 162  
Sprakers, NY 12166  
518-673-5336



**Macro Elements**  
N - Nitrogen  
P - Phosphorous  
K - Potassium

**Secondary Elements**  
Ca - Calcium  
Mg - Magnesium  
S - Sulphur

**Micro Elements**  
Fe - Iron  
B - Boron  
Zn - Zinc  
Cu - Copper  
Mn - Manganese  
Mo - Molybdenum

## 15 “Essential Elements” We Should Be Talking About!

Lucas Irwin CCA

**Base Fertility:** Carbon, Hydrogen, and Oxygen.

Base fertility can be a great way to represent the three essential elements Carbon, Hydrogen, and Oxygen. Without a base fertility plan for our crop production plan we are not going to stand a very good chance of producing a crop that is going to help our operation be successful. This is the same with Carbon, Hydrogen and Oxygen, as these three elements are the base foundation for crop production. Without each, we stand little chance of producing a healthy productive crop.

**Nutrient Programs:** Nitrogen

Nitrogen is an in plant mobile macronutrient, needed in some capacity by all production crop plants. Nitrogen is also a key component of the Nutrient Programs we discuss as advisors and producers every growing season. Having a nutrient management program that has a firm handle on nitrogen sources, timing, and input methods will ensure that there is enough N to keep the crop healthy and productive throughout the growing season.

**Starter fertilizers: Phosphorus**

Starter fertilizers are considered one of the most important crop inputs when it comes to crop production. Having a starter fertilizer that can be detailed directly to a nutrient management program, can have a super impact on crop emergence and early vigor. As with phosphorus, starter fertilizers play a key role in providing the plant with enough nutrients to develop strong cell membranes. Starter Fertilizers also ensure the plant produces its own energy, once roots and leaves are established.

**Manure Management: Potassium**

We know that manure management (if it applies to you) can be a very practical and useful tool in aiding crops with the essential nutrients needed, in the most abundant amounts. Good manure management application and techniques can lay down the framework for a grower to build a strong nutrient management program. Growers can usually count on generous amounts of potassium being supplied from their manure applications. Potassium is essential to plants and aids in photosynthesis, metabolism, and agronomic stability.

**Auburn****Liming and Soil pH: Calcium, Magnesium, and Sulphur**

By regularly soil sampling fields and establishing soil pH levels, you can develop a plan for lime application. This plan will help to build or maintain soil pH levels for crop production. By maintaining optimal soil pH levels we insure that Nutrient and Herbicide applications will be utilized, and not tied to soil particles. Liming, with products such as High Cal lime, will help to build and maintain levels of Calcium and Magnesium that often are depleted in wet saturated soil conditions.

**Bernardston****Niverville****Herbicide Program: Boron, Copper, and Iron**

A well thought out Herbicide Program, ensures that the countless hours of preparation and dollars invested into every crop acre, are not wasted. Herbicide programs should take into consideration crop rotations, along with problem weeds or breakthrough scenarios. Boron, Copper, and Iron are micronutrients that are relatively immobile in plants. Just like a herbicide application, elemental levels of a nutrient or herbicide only need to be off a little bit to have a negative effect on the plant.

**Oriskany Falls****Salem****Yield Goals and Plans to Achieve: Manganese, Zinc, and Molybdenum**

Yield goals and expectations should be a topic of conversation brought up often when we talk about crop production. Without goals or expectations we are not pushing our operations to produce at high levels. Whether it is bumping up a few bushels per acre or producing higher quality forages for a dairy herd, growers should always have a goal in mind. A yield goal for a grain producer may be to increase the average by 6 bushels per acre. The next step is to plan ways to achieve that goal. One option may be to use a pop-up fertilizer, having a detailed and crop needed specific formulation. This pop-up fertilizer could include trace amounts of zinc, or other micronutrients that aid in early plant health and emergence.

**Tri Valley**

Realistically, there is an endless list of topics that growers, advisors, salesmen, and applicators could talk about.... but then who would take care of all the work? Maybe you have all of the above mentioned topics nailed down and you are well on your way to a problem-free spring planting season. But more often than not there is something that needs working on or improving. It may be adapting new technologies, or something as simple as planter preparation and maintenance. Whatever it may be, take the time to identify a few key points in your operation that you would like to discuss with your trusted advisors and company representatives, a Prior Planning Prevents Poor Performance.