



# Newsletter

www.carovail.com  
www.facebook.com/CaroVail

## CaroVail

### Agronomy Update

March 18, 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**

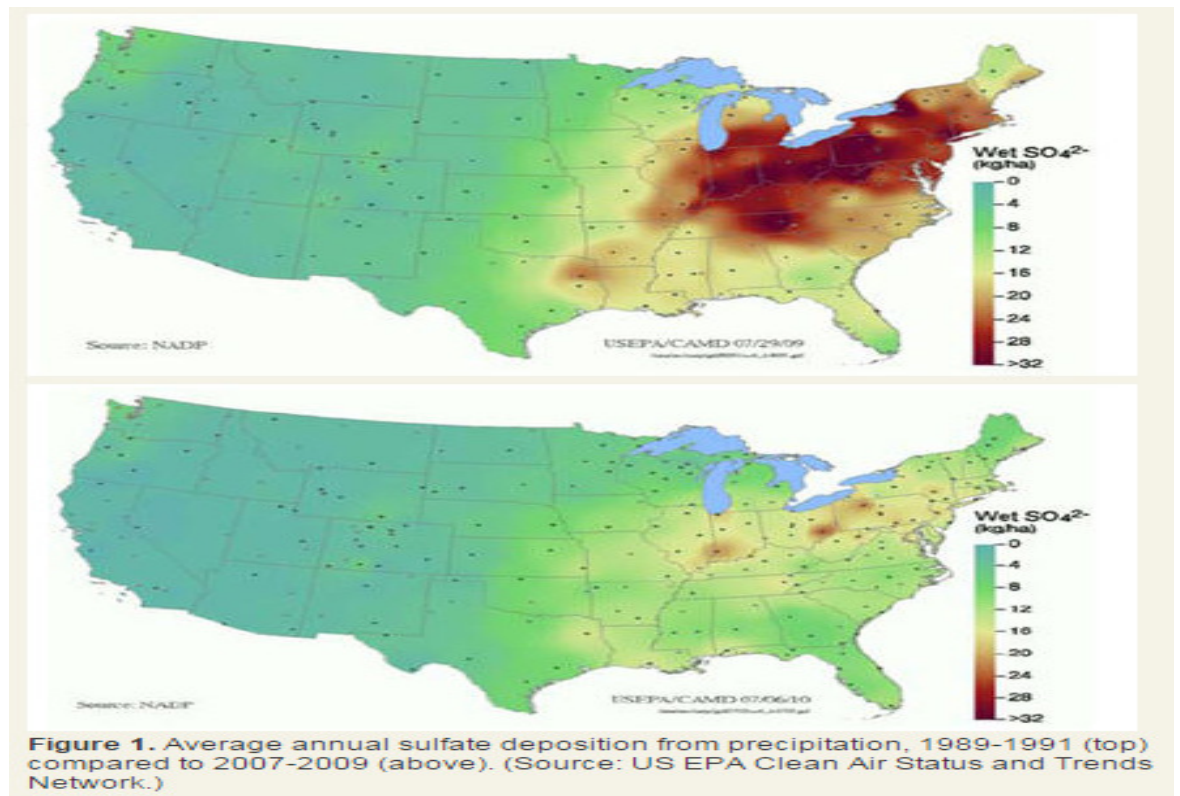
8341 US State Rt 20  
Oriskany Falls, NY  
13425  
315-841-3201

##### **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



## Sulfur

Frank Flis

Sulfur has become the fourth major plant nutrient for crop production. Sulfur (S) in the plant increases nitrogen (N) efficiency, increases protein in forage and grain, boosts yields, helps to develop enzymes and vitamins, promotes N fixation in legumes, aids in seed production, controls nitrate build up in plants, and is necessary in the formation process of chlorophyll. There is a strong relationship between N and S in the plant. Ratios vary between N/S 15/1-7/1, but whatever the relationship when fertilizing with N the addition of S will increase N use efficiency. The addition of S to the N fertility has a side environmental effect, reducing nitrate leaching potential.

The soil organic matter contains the largest amount of the soil's S. For this S to be converted to the plant as available Sulfate (SO<sub>4</sub>), bacterial oxidation must occur. The sulfate forms are soluble and move through the soil with the soil water and are readily leached under high rainfall events. Soil texture will affect S opportunity. Sandy soils present the biggest challenge both in maintaining high organic matter (OM) levels and their high leaching potential.

The intensification of agriculture with improved crop varieties pushing higher yield potentials, improved air quality (see attached map for variances in sulfate deposition), low sulfur fuels, and sulfur free plant protection materials have increase the need for the addition of sulfur in crop production. Increasing organic materials in the soil by using animal wastes and cover crops will help stabilize soil S. Supplement animal wastes and cover crops with additional S through the growing season while also paying close attention to high protein crops and crops using large amounts of N.

Measuring S in the crop production systems is challenging. Testing for OM levels through soil testing can provide helpful knowledge of cropping systems and tissue analysis will provide some of the best indicators. Forage samples may also give some insight into S use by the crops observing % protein and S containing amino acids. The soil test for S without additional information may be misleading depending on time of year that the sample is taken and by the soil temperature.

S can be added to fertility programs with several products. Again it is best to look at other soil and crop needs before choosing a source. Ammonium sulfate will supply readily available S along with N. K-Mag or SPM will provide S, Potassium (K), and Magnesium (Mg). Ammonium Thiosulfate (ATS) with UAN is another liquid source. Gypsum, which is Calcium Sulfate, will provide Calcium if needed. Epsom salt or MgSo4 can provide Mg and be used as a foliar. Also, Sulfate of Potash can provide a low salt source of K along with the S. These are just a sampling of the potential sources of S. Crop type, soil information, and yield goals should be used to determine needs and identify the appropriate source.



**Auburn**

**Bernardston**

**Niverville**

**Oriskany Falls**

**Salem**

**Tri Valley**

---

## Business Corner

Need available credit for this year's spring needs? **CaroVail's Ag Finance** program can help growers fund their 2016 CaroVail purchases, most with deferred payment until February 10, 2017. For credit qualified producers, the application can be approved within a few days for those requests under \$250,000. Requests over \$250,000 may also be considered with additional underwriting. Contact your CaroVail representative to start your application today. We are able to offer a competitive interest rate for this type of financing. Get started today by going to our website [www.carovail.com](http://www.carovail.com) and clicking on "News", then "Credit Applications" !

Additionally, CaroVail is an authorized **John Deere Financial** merchant for your Ag Preferred Special Terms credit line through JDF. Please let our office know that you would like to use your available JDF credit when you place your spring orders.

Contact Julie Forbes, Credit Manager, at 518.854.9785 or [jforbes@carolina-eastern.com](mailto:jforbes@carolina-eastern.com) for more information on CaroVail's credit programs.

# Weather Update

|                | Approx. Weekly Rainfall | Avg expected high Temp next week | Avg expected Low Temp next week | GDD (Base 50) since Jan 1 | GDD (Base 50) since Mar 1 | GDD (Base 50) since Apr 1 | GDD (Base 50) since May 1 |
|----------------|-------------------------|----------------------------------|---------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Auburn         | 0.45                    | 43                               | 31                              | 14.8                      | 14.8                      | 0                         | 0                         |
| Bernardston    | 0.03                    | 42                               | 26                              | 16.8                      | 16.8                      | 0                         | 0                         |
| Niverville     | 0.32                    | 46                               | 30                              | 24.1                      | 24.1                      | 0                         | 0                         |
| Oriskany Falls | 0.40                    | 39                               | 25                              | 11                        | 11                        | 0                         | 0                         |
| Salem          | 0.34                    | 43                               | 27                              | 17.5                      | 17.5                      | 0                         | 0                         |
| TVCC           | 0.37                    | 42                               | 29                              | 22.6                      | 22.6                      | 0                         | 0                         |

**Auburn**

**Bernardston**

**Niverville**

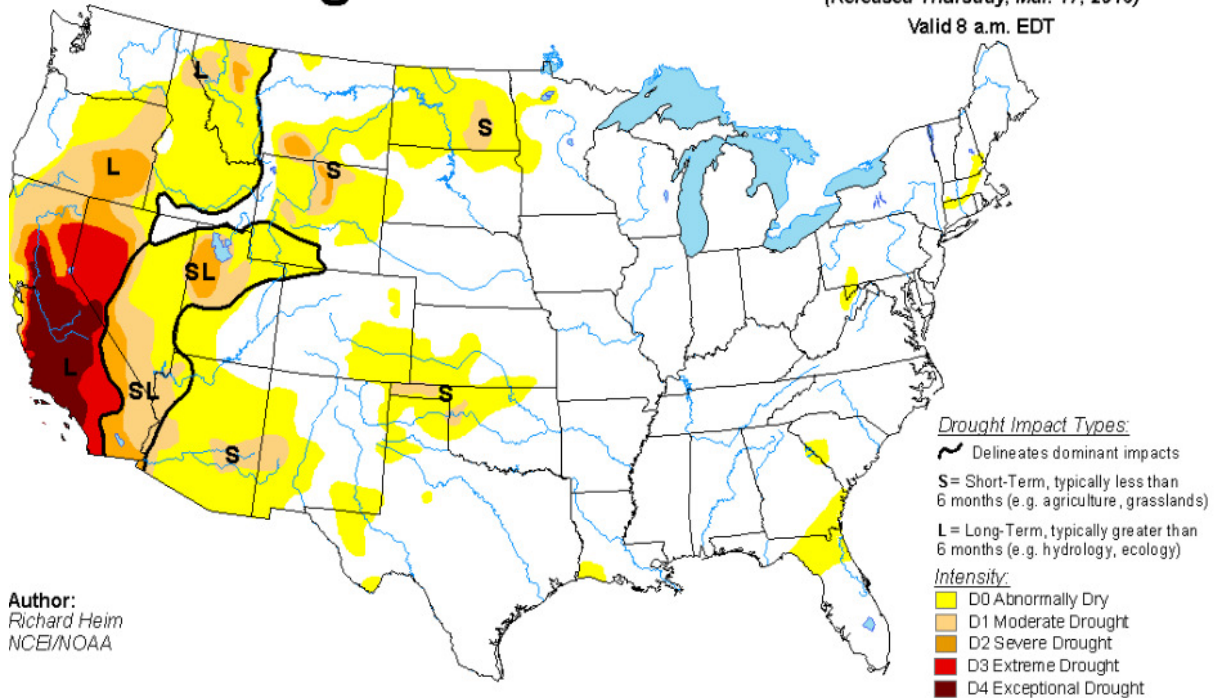
**Oriskany Falls**

**Salem**

**Tri Valley**

## U.S. Drought Monitor

**March 15, 2016**  
(Released Thursday, Mar. 17, 2016)  
Valid 8 a.m. EDT



It was another week of generally light precipitation (less than an inch) across much of New England and the mid-Atlantic, with amounts ranging from 1-2 inches in spots near the Great Lakes to less than 0.20 inch along the coast. A few areas of D0 lingered in New England and along the Maryland-West Virginia border where streamflow was low, soil moisture models indicated dryness, and streamflow was low. The week was too dry for improvement and too wet for D0 expansion, so no changes were made to the depiction in the Northeast.