



Newsletter

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CaroVail

Agronomy Update

April 15, 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



Seedbed Preparation and Planting Depth

Lucas Irwin

Well it's here, the time of year we plan for, pray for, cuss about, and can't live without...Planting season! All the hours spent reviewing and planning crop rotations, tweaking fertility plans, servicing planters and tillage equipment have been in preparation for this moment. Making sure that we are putting in all the necessary efforts to our fields and planter preparations ensures our crops will be established and primed for a successful growing season.

Seedbed preparation is one of the single most influential factors in seed germination and establishment. Good seed to soil contact enables seed to utilize the moisture available in the soil and helps provide nutrients later on as the plant matures. Most commonly, seedbed preparation is achieved through tillage. Thorough tillage serves several purposes in seedbed preparation:

- Loosen soil surface- Creates better soil surface conditions and ensures good seed to soil contact.
- Eliminate existing weeds or vegetation- Tilling under weeds or plant debris helps ensure that weeds or weed seeds do not have the opportunity to get established before the intended crop.

- Incorporation of fertilizer- Tillage is a great means for making sure our fertilizers are incorporated into our seedbed. Getting those fertilizers into the top few inches of soil helps ensure those nutrients will be there when the plant needs them the most.
- Provides firm seed bed for seeding- tillage practices including harrowing and cultipacking provide a firm, smooth seedbed providing the best opportunity for soil contact and germination.

There are several tillage practices that all work in conjunction to create a better environment for seed germination and establishment. Whatever practices a grower chooses to implement, there should be one common goal and that is to have a smooth, uniform and firm seedbed free of most debris and weeds. A good seedbed should allow the desired crop to germinate and grow without having to fiercely compete for moisture nutrients and sunlight.

Auburn

Once a good seedbed is established or if you have made the decision to no-till plant a crop, the next practice to focus on is planting and planting depth. Whether you're planting grain corn, soybeans or seeding down some acres with a grass alfalfa mix, proper seed depth and soil coverage is extremely important to crop establishment and overall yields.

Bernardston

Soybean planting depth is very important for proper germination and establishment. Under most soil conditions, soybeans should be planted between 1 and 1.5 inches in depth. Growers that are planting early into moist fine textured soils or fields with high residue conditions should be on the shallower end of depth. Growers that are late planting into coarse textured or dry soils should be planting closer to 2 inches in conditions that call for it.

Niverville

Optimum seed planting depth for corn lies between 1.5 to 2 inches for two important reasons. One being to achieve good seed to soil contact so a corn seed can imbibe the necessary water to germinate and the second is to establish a strong nodal root system well below the soil surface. In some cases a grower may choose to plant at depths greater than 2 if soil conditions call for it. A good rule of thumb is to always shoot for at least 1.5 inches in depth, anything less may be too shallow.

Oriskany Falls

Shallow planting may cause root systems to develop at or even above the soil surface allowing them to be affected by environmental stresses (ie. frost, hail or bird feeding damage). Shallow planting may also lead to a condition known as rootless corn syndrome in which plants lack a strong nodal root system often resulting in downed corn. Shallow seed may also be exposed to herbicide residues increasing the potential for herbicide injury. Uneven emergence and decreased populations may also be contributed to by shallow planting. No-till planting applications if not closely managed according to field conditions, can be troublesome to achieve the ideal seed planting depth.

Salem

Tri Valley

The reality is that the ideal planting depth should be based on a number of factors that should be determined at the time of planting. Management decisions may vary drastically if you are employing no-till, strip till or conventional tillage systems. Field conditions in our geography may vary so much so that planting depth could warrant being adjusted each time we pull a planter into a different field. Logically that doesn't make a whole lot of sense when we are under the gun and time is working against us to get crops planted. Finding and maintaining the planting depth that allows for good seed to soil contact and provides the seed with the best opportunity for moisture intake and emergence will make all the difference. Be sure to monitor seed depth and make changes as needed. We really only get one shot to establish a seeding the way that it should be the first time, let's not rush over things or neglect how important the factors that we can control are when planting crops. Good luck and well wishes for a successful 2016 crop season!

Auburn



Bernardston

Niverville

Oriskany Falls

Salem

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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	0.10	64	40	27.2	27.2	2.7	0
Bernardston	0.06	62	39	37.6	37.6	11.7	0
Niverville	0.08	65	40	45.2	45.2	12.3	0
Oriskany Falls	0.05	61	38	23	23	3.5	0
Salem	0.11	62	38	34	34	9.5	0
TVCC	0.12	62	39	37.2	37.2	6.9	0