

## Website to Visit:

CropWatch  
<http://cropwatch.unl.edu/>

## Planting Tips for Successful No-till

In no-till, planters need to cut and handle residue, penetrate the soil to the desired seeding depth, establish proper seed-to-soil contact, and close the seed-vee. Keeping these four items in mind, producers can evaluate the strengths or weaknesses of their planter and make any adjustments or changes necessary to make no-till successful. Fortunately, most currently available planters can be used for no-till with few, if any, modifications when paying attention to the following tips.

- By planting soybeans down the old rows, the corn residue provides a mulch to reduce erosion, evaporation, and crusting. Tire wear is greatly reduced compared to driving on the old stubble.
- **Maintain Sharp Openers.** Double-disk openers, if sharp and working properly, can cut through residue without coulters or residue movers. Adjust the disk openers so that they are working together as a single cutting edge with about 2 inches of blade contact. When replacing the disk openers, also replace the seed tube protector as it holds the disks apart to reduce blade flexing and acts as a scraper to help keep the disks clean. If hairpinning residue is a problem, increase the planting depth to improve the residue cutting angle of the disks.
- **Don't Seed Between the Old Rows.** Avoid planting in the heart of the wheel track as that is the most compacted area in the field. Also, when seeding between the old rows, some of the new rows will be in soft, untrafficked row middles with different soil conditions than the wheel tracks. Planting about 4 inches to the side of the old row works well for corn on corn. This also reduces tire wear compared to driving on the root stumps to plant between the old rows.
- **Monitor Planting Speed.** Keep the speed around 4 to 5 miles per hour to reduce planter unit bounce and deliver seeds uniformly. Be wary of ads that say a planter can "meter seed" at 7 to 8 mph. That doesn't mean it can deliver the seeds to the soil uniformly at higher speeds. Often the resulting non-uniformity from operating at higher speeds reduces yields enough to justify a larger planter (or a second planter) to complete planting in a timely manner.
- **Increase the Down Pressure.** No-till residue requires downpressure springs and extra weight (as necessary) on the planter to cut through and penetrate the soil to achieve desired seeding depth. This is especially true when working in hard, dry soil. Row units should have enough downpressure to ensure that the depth gauging wheels are actually gauging planting depth. Check the downpressure on the row units as conditions change to avoid overcompacting wet soils, creating sidewall compaction.
- **Place Seeds at a Uniform Depth.** Make sure all the seeds are at the bottom of the seed-vee, placed into good soil moisture, for uniform emergence. Keeton Seed Firmers or Schaffert Rebounders can provide a more uniform planting depth for more uniform emergence. These units also provide convenient in-furrow fertilizer application options. Keeton Seed Firmers also improve seed-to-soil contact, as the name implies.
- **Keep Residue Uniform.** Consider residue movers on the planter to "even up" and create a uniform residue layer, especially if the residue was not uniformly spread during harvest. However, if the residue cover is already uniform, such as in long-term no-till, residue movers can do more harm than good. In these cases, the movers break residue loose from the soil. Some of this residue can then blow back over the row, creating non-uniform conditions. In addition, some emerging corn may leaf out under the residue and may have difficulty surviving.
- **Close the Seed-vee.** The seed-vee should be properly closed for good seed-to-soil contact and to reduce drying out of the seed zone. Spoked closing wheels are often added to planters to help close the seed-vee. They serve three purposes: drying the soil with tillage, closing the



seed-vee while fracturing the sidewall, and providing loose soil above the seed. The loose soil created by the spoked wheels reduces the chances of the seed-vee opening back up as the soil dries. However, depending on your moisture situation, the tillage of the closing wheels might dry out the soil too much. In some cases, growers get better results using one spoked wheel and one regular closing wheel. Also, some brands of closing wheel brands have less aggressive spokes than others.

● **Consider Planting Deeper.** Planting the seeds deeper puts them into a more buffered soil environment with a more uniform soil temperature and soil moisture. This improves uniformity of emergence which increases yields. Also, by planting deeper, the root system is better established, improving standability and allowing the plant to better handle stresses. Corn should be planted at least 2 inches deep as most corn planters were designed for planting depths of 2 to 3 inches. Consider the 3-inch planting depth in dry years and low residue conditions to reduce the chances of the seed zone drying out.

Source: Paul Jasa, Extension Engineer, Crop Watch

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## Five Steps to Successful Forage & Alfalfa Establishment

Field preparation and attention to planting details can help ensure the success of your new forage or alfalfa stand, and avoid costly losses associated with a failed stand. The cost of reseeding a stand and the lost production from high-valued land can add up quickly.

Before planting alfalfa, grass, or other forages this spring, make sure you take the steps needed to give you the best chance for a successful establishment.

**Step 1.** Begin by making sure the field is suitable for whatever you intend to plant. Seeding alfalfa in an area that frequently gets flooded or has standing water is not likely to produce long-term success.

**Step 2.** Soil test and add recommended fertilizer and lime before planting.

**Step 3.** Prepare a firm seedbed. When walking across the field before planting, you shouldn't sink any deeper than the soles of your shoes or boots. You can also try bouncing a basketball on your seedbed. If the ball won't bounce back up, your seedbed is too soft. Firm it some more with a flat harrow, a roller, or maybe even irrigate.

**Step 4.** Most forage seeds are very small and should be planted no more than one-fourth to one-half inch deep on heavy or fine textured soils or one-half to one inch deep on sands or coarse-textured soils. One of the most common causes of poor forage stands is planting too deep.

**Step 5.** Control weeds. Options include tillage during seedbed preparation, burn-down herbicides before planting, pre-plant incorporated herbicides, post-emergence herbicides, and even mowing.

It's tempting to take shortcuts with any of these steps, but careful attention to each of them will provide the greatest opportunity for achieving a successful stand & helping avoid costly failures.

Source: Bruce Anderson, Extension Forage Specialist

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## Land Owners & Managers Update

Topics covered:

- Trends in land marketing, land values, and cash rental rates
- Managing family & tenant/landlord relations
- Considerations for written leases and other agricultural asset rents
- Flexible cash lease basics and how to integrate them into existing contracts
- Examples of figuring flex lease contract and popular methods in Nebraska

The cost of the DVD is \$10 (includes shipping & handling). To order a copy call 402-370-4000.

*A three-hour digital workshop on land management, relations, and flexible cash leasing.*

# Precision Agriculture

Precision Agriculture (PA) information found at <http://cropwatch.unl.edu/web/ssm/home> is designed for crop producers, agricultural consultants, extension educators, and other agricultural professionals.

Numerous economic and environmental benefits may be realized by strategically applying PA management principles including:

- Enhanced product quality
- Increased agricultural profitability and sustainability
- Protecting the environment
- Optimized use of agricultural pesticides, fertilizers, seeds, water, energy and other crop amendments
- Improving the well-being of those who depend upon Nebraska agriculture

## Precision Agriculture Components:



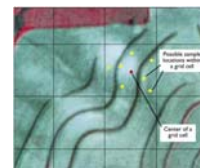
**Satellite-Based Auto-Guidance** - Satellite-based auto-guidance systems can provide significant benefits for the crop production industry. Improved equipment make it possible to use satellite-based auto guidance in diverse growing environments. For more information visit: <http://cropwatch.unl.edu/web/ssm/guidance>

**Yield Monitoring and Mapping** - Yield mapping refers to the process of collecting georeferenced data on crop yield and characteristics, such as moisture content, while the crop is being harvested. Various methods, using a range of sensors, have been developed for mapping crop yields. For more information visit: <http://cropwatch.unl.edu/web/ssm/mapping>



**On-the-Go Vehicle-Based Soil Sensors** - Sensors can measure a variety of soil properties. These sensors are used in conjunction with GPS to develop field maps or to control variable rate application equipment in real-time. For more information visit: <http://cropwatch.unl.edu/web/ssm/sensing>

**Site-Specific Management of Soil pH** - A series of frequently asked questions (FAQs) are addressed. For more information visit: <http://cropwatch.unl.edu/web/ssm/ssmphfaq>



**Soil Sampling for Precision Agriculture** - Soil sampling is an important component of a site-specific management system. Sampling principles and recommendations are discussed. For more information visit: <http://cropwatch.unl.edu/web/ssm/soilsampling>

**Site-Specific Nitrogen Management for Irrigated Corn** - Recent research in site-specific nitrogen management and recommendations for how irrigated corn producers in Nebraska might implement this technology on their farms. For more information visit: <http://cropwatch.unl.edu/web/ssm/ssmirrcorn>

