March 25, 2019

Franklin County
ISU Extension and Outreach
3 First Ave NW
Hampton, IA 50441
641-465-4811
sackvill@iastate.edu
www.extension.iastate.edu/franklin

Didn’t get fall tillage completed, save money this spring

AgDM Newsletter-March 2019, By Angie Rieck-Hinz, extension field agronomist, north central Iowa, 515-231-2830, amrieck@iastate.edu

The fall of 2018 was challenging for most farmers. It started with rainfall beginning in early September as the corn and soybean crop was maturing. While a good portion of the crop was harvested, rain and cold temperatures limited fall tillage operations. This presents an opportunity to save money on input costs this spring.

Soybean does not have a yield response to tillage. This is good news. There is no need to spend labor and fuel incorporating the corn residue. On top of that, spring tillage operations are not effective for breaking soil compaction. In fact, the opposite happens in normal spring conditions when soil moisture is plentiful. Spring tillage in wetter conditions leads to smearing of soil from the tillage knives or sweeps and disk creates a compaction layer while sizing residue.

There may be a need for some spot tillage to fill ruts created during harvest. This should be limited to the areas with ruts in order to fill them in. Shallow tillage is adequate. Deep tillage will likely not reach the full depth of compaction and, because of spring soil moisture, will make the compaction problem worse.

The essential part of no-till planting is to ensure proper function of the planter. This is not different from any other tillage system. Confirm appropriate row unit down pressure, check seed placement depth, and ensure furrow closure. No-tilling corn and soybean does require more finesse but with some patience will provide dividends at harvest.
No-till planting soybean
I have talked to a couple farmers who have experience with no-tillage planting. It was unanimous that any planter purchased in the last 20 year can plant soybean into corn residue without any trouble, especially if the planter already has row cleaners. Nearly all planters have the ability to ensure appropriate down pressure and seed depth placement. Research from across Iowa shows that soybean yield is not influenced by tillage system. Therefore, no-till planting soybean into corn residue will yield similar to other tillage systems but also result in high economic returns.

No-till planting corn into soybean residue
Since soybean residue is fragile and less abundant than corn residue, today’s planters can easily move through the field with little to no reduction in typical planting speed. Row cleaners should be set to ‘tickle’ the soil which will easily move soybean residue out of the row. Using injected spring nitrogen to prepare a seedbed similar to strip-tillage is a good option but should be conducted 7 to 14 days ahead of planting and ideally have a gentle rain to avoid burning corn seedling roots.

Planting corn into corn residue
Planting corn into corn residue is a more complicated than no-tillage planting corn into soybean residue. In this situation, light tillage such as a rotary harrow or vertical tillage implement may be necessary. It is going to be really important to use row cleaners to move residue out of the row. Having the ability to use starter fertilizer can help lessen early season growth challenges often associated with corn following corn. If fall anhydrous was delayed, using RTK can be an effective way to form a tillage zone similar to strip-tillage. If doing this, be cautious of high nitrogen rates burning corn seedling roots. Waiting 7 to 14 days between anhydrous application and planting (and a gentle rain) along with injecting slightly deeper can reduce issues with this practice.

Tips:
1. Wait for fit soil conditions
2. Like any new practice: start slow to gain confidence that increase the speed
3. Set row cleaners to move residue, not make a trench
4. Check planter performance and seed placement often

Mark Licht  Assistant Professor
Dr. Mark Licht is an assistant professor and extension cropping systems specialist with Iowa State University Extension and Outreach.

Commercial Pesticide Applicator Resources

<table>
<thead>
<tr>
<th>Continuing Instruction Course</th>
<th>Date</th>
<th>Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerial Applicators Categories: 11 (Aerial Application), and 10 (Research and Demonstration)</td>
<td>Program Available late spring. Contact County Extension Office.</td>
<td></td>
</tr>
</tbody>
</table>

Mark Licht  Assistant Professor
Dr. Mark Licht is an assistant professor and extension cropping systems specialist with Iowa State University Extension and Outreach.
Yard and Garden:
Snow Increases Rabbit, Deer Damage

AMES, Iowa -- Rabbits and deer have been browsing on trees and shrubs in windbreaks, home orchards and landscape plantings over the last two months because of the extended period of snow cover across most of Iowa. The prognosis for the plants depends on the extent of damage. Iowa State University Extension and Outreach horticulturists describe how to access the damage. To have additional questions answered, contact Hortline at 515-294-3108 or email hortline@iastate.edu.

Rabbits have damaged several trees and shrubs in my yard. Will they survive?

Deciduous trees that have been girdled (the bark has been removed completely around the trunk) have essentially been destroyed. The best course of action is to replace the girdled trees. Wrapping the trunk or applying pruning paint to the damaged area will not save the tree. Most affected trees will sucker at their base. However, since most fruit and ornamental trees are propagated by grafting, suckers which originate from the rootstock will not produce a desirable tree.

Many deciduous shrubs have the ability to produce new shoots or suckers at their base. Because of this ability, severely damaged deciduous shrubs may recover within a few years. Girdled stems should be cut off just below the damaged areas.

Rabbits heavily damaged my raspberries over winter. Will they produce a crop this year?

Purple, black and summer-bearing red raspberries that have been badly damaged by rabbits will likely produce little fruit this year. Purple, black and summer-bearing red raspberries produce fruit on the previous year’s shoots. First year growth is strictly vegetative.

The best strategy for home gardeners is to cut off the damaged canes at ground level in early spring. Place chicken wire or hardware cloth fencing around the raspberry planting in fall to prevent rabbit damage to the new canes over winter. The raspberries should produce fruit the following year.

Rabbit browsing should have little effect on the total crop yield of fall-bearing red raspberries. Fall-bearing raspberries naturally produce two crops. The first crop is produced in late summer/early fall at the tips of the current season’s growth. The same canes produce a summer crop in the following year. Cut back the damaged canes at ground level in early spring. New canes should produce a good crop in late summer/early fall.
Deer have browsed on several of my evergreens. Will they recover?

The key to the condition of deer-damaged arborvitae, yews, pines and other evergreens is the presence of growing points or buds on the browsed branches. Branches that have had all their buds devoured by deer will not produce new growth in spring. As a result, some small evergreens may have been destroyed. Larger evergreens may have lost their lower branches. Since buds on arborvitae and yews are rather difficult to see, individuals should wait until late spring before taking any action. Branches that are completely bare (no green growth is present) in early June have been destroyed and can be removed.

Photo by natureguy/stock.adobe.com

About the Authors:

Richard Jauron
Extension Horticulturist
515-294-3108
rjauron@iastate.edu

Willy Klein
Organizational Advancement
515-294-0662
wklein@iastate.edu