



Ag & Hort Update

October 2009

Harvest is underway! Whether you are seeing the fruits of your labors bear out in corn bushels or shiny orange pumpkins, there is a deep stirring of pride and accomplishment to be felt at the end of a successful growing season. As we celebrate this time of harvest, we inevitably look back on things done well and things we might change for next year. Whether you are looking for planning tips to increase your yields next year, or management tips to deal with the things Mother Nature throws your way throughout the season, we have appreciated you choosing Extension as a source of knowledge and guidance, and we look forward to working with you as a new season brings different decisions to make. Happy Fall!

-Kate Olson

Upcoming Events:

Oct 4-10th: National 4-H Week

Oct 25th: 4-H Recognition Event

Ask the ISU Garden Expert

Some of the needles on my white pines have turned yellow and begun dropping to the ground. Is this a problem?

The loss of needles is probably due to seasonal needle drop. Deciduous trees, such as maple and ash, drop all of their leaves in fall. Though it largely goes unnoticed, evergreens also lose a portion of their foliage (needles) on a yearly basis. Seasonal needle drop on most evergreens occurs in late summer or early fall. Needle loss is most noticeable on white pines. As much as one-half of the needles on white pines may drop in late summer/early fall. Seasonal needle loss is less noticeable on spruces, firs and other pines as they retain a higher percentage of their needles. Seasonal needle drop is uniformly distributed throughout the inner part of the evergreen. It is the oldest needles which are shed. The needles turn uniformly yellow or brown and drop to the ground.

When can I stop mowing the lawn in the fall?

Continue to mow the lawn until the grass stops growing. The foliage of cool-season grasses, such as Kentucky bluegrass, stops growing when daytime high temperatures are consistently below 50 F. In central Iowa, bluegrass usually stops growing in early to mid-November. Once the foliage stops growing, the lawn mower can be put away for the winter.

How do I overwinter tuberous begonias?

Carefully dig up the tuberous begonias within a few days of a killing frost. Leave a small amount of soil around each tuber. Cut off the stems about one inch above the tubers. Place the tubers in a cool, dry area to cure for two to three weeks. After curing, shake off the remaining soil, then bury the tubers in dry peat moss, vermiculite or sawdust. Store the tubers in an area with a temperature of 40 to 50 F. Do not allow the tubers to freeze.

I saved last year's poinsettia. How do I get it to flower for Christmas?

Poinsettias are short-day plants. Short-day plants grow vegetatively during the long days of summer and produce flowers when days become shorter in fall. In order for poinsettias to flower for Christmas, they must receive complete darkness from 5 p.m. to 8 a.m. each day from early October until the bracts show good color, usually around early December. (Most poinsettia varieties require eight to 10 weeks of short days to flower.) Gardeners can protect their plants from light by placing them in a closet or by covering with a cardboard box. When using cardboard boxes, cover any openings to insure complete darkness. Exposure to any kind of light between 5 p.m. and 8 a.m. will delay or possibly prevent flowering. During the remainder of the day, the poinsettias should be placed in a sunny south window. Keep the plants well watered and fertilize every two weeks during the forcing period. While poinsettias are difficult to flower in homes, proper care can reward home gardeners with a colorful plant for the holiday season.

Get answers to all your yard and garden questions at www.yardandgarden.extension.iastate.edu. For specific questions, call the Hortline at (515) 294-3108, Monday-Friday from 10 a.m. to noon and 1 to 4:30

Manage Soybean Diseases at Harvest Time

By XB Yang, Department of Plant Pathology

Two soybean diseases - sudden death syndrome (SDS) and soybean white mold - are wide spread in Iowa this season. In August SDS showed up in almost every Iowa region, with some regions having high disease intensity. Large patches of soybean with SDS symptom are obvious from south to north. White mold, a disease that can drastically cut yields, started to get the attention of producers in late August. This year white mold is so wide spread that agronomists report observing it in many soybean fields in southern Iowa. In northern Iowa, patches of soybean killed by this disease were so abundant that I found them in nearly every soybean field while attending a field day Sept. 18. Before this year, the highest loss from white mold in my book was about \$32K in a farm. This year, a farmer told me he estimated a loss of \$40K to his farm from this disease.

In the past, rotation effect made white mold outbreaks an even year occurrence. This year, is the first time we have seen a wide occurrence in an odd year. For most of the fields where white mold was found, the disease was scattered in small patches. To prevent the disease from developing into an every year problem, we should minimize the spread of this disease at harvest by limiting the size of disease patches. When combining a soybean field infested with white molds, harvest the disease patches last so that the combine will not spread infested plant materials to non-infested area.

As for SDS, the management of its risk for future soybean fields should start when you harvest your corn fields. Our greenhouse and field studies show that corn is a good crop for harboring SDS pathogen, especially corn kernels. We compared the survival of SDS fungus in different crop residues (corn or soybean) which included different parts of a crop (root, seed, straw). We found that treatment that had corn kernel density equal to average harvest loss consistently had the highest SDS fungus population. Our finding is consistent with producers' observations that severe outbreaks of SDS can occur after a few years of continued corn production. Our results suggest that a nice and clean harvest of corn field should help reduce the risk of SDS, while a high amount of harvest loss increases SDS risk the next time soybean is planted.

Late Summer is Time to Rejuvenate Your Lawn

By Marcus Jones, Department of Horticulture, Iowa State University

If your lawn failed to live up to expectations this summer, don't wait until next spring to take action. The late summer/early fall season is a great time to rejuvenate your lawn. It's important to keep in mind that even the most attractive lawns don't look that way on their own. Creating and caring for a beautiful lawn takes time and effort. Performing a few key maintenance practices now will help get your lawn back in shape and prepare it for next spring and summer. Controlling perennial weeds, fertilizing, establishing new turf with seed and aeration are basic maintenance practices commonly performed during the next couple of months.

- **Controlling perennial weeds** – Annual weeds such as crabgrass and goosegrass die with the first hard frost in the fall. Weeds with annual lifecycles should be controlled during the spring and early summer months. Perennial broadleaf weeds such as dandelion, ground ivy (creeping Charlie), white clover, and broadleaf plantain are best controlled during the fall months as temperatures cool. While these weeds may be removed by hand, such control often is temporary as the weeds will regenerate from deep taproots or special creeping stems called stolons. Broadleaf herbicides provide the best control and may be applied as a spray or be packaged with a granular fertilizer in a "weed-n-feed" type product. Make sure the purchased product controls the weeds present in your lawn and always apply according to the directions.
- **Thicken existing turf with fertilizer** – One of the best strategies to control weeds is by having a healthy, thick lawn. However, most lawns struggle to grow during the hot, summer months especially if rainfall is scarce and the lawn is not irrigated. Many times by the end of summer the turf declines to the point that bare soil is exposed. Fertilizer can help stimulate the growth of the existing turf and help fill-in the thin spots. Two or three fertilizer applications may be applied during the next couple of months depending on the level of recovery that is required.

Often, the final fertilizer application is made after the grass has stopped growing. This strategy is known as “late fall fertilization” and will help your lawn develop a stronger root system and green-up faster the following spring.

- **Establish new turf with seed** – Sowing seed may be necessary if your lawn has been damaged to the extent that the growth of the turf (even with fertilizer) will not be sufficient to fill-in areas of exposed soil. Seed germinates readily in late summer/early fall if the seedbed is kept moist. The type of seed purchased depends on the landscape. Use Kentucky bluegrass alone or mixed with perennial ryegrass if your lawn receives full sun. If the lawn receives both sun and shade, use a mixture of Kentucky bluegrass, perennial ryegrass and fine fescue. Fine fescue should be used alone in areas that receive heavy shade. Difficult growing areas such as a boulevard or areas surrounded by concrete can be sown primarily with tall fescue mixed with a small amount of Kentucky bluegrass.
- **Aeration** – Consider aerating the lawn if extensive seeding is necessary. Aeration removes cores of soil without disrupting the turf canopy. Pass over the area at least two times, each in a different direction. Apply fertilizer and seed to the area and lightly water the area to moisten the soil surface. Seed will filter into the holes and germinate. Aerification is also routinely performed during the fall months to loosen soil which has been compacted from heavy traffic and to prevent thatch accumulation. Thatch is a layer of organic debris which forms between the soil surface and turf canopy. Too much thatch causes many problems, including poor rooting and increased disease activity.

Fall Combine Harvest Considerations

By Mark Hanna, Department of Agriculture and Biosystems Engineering

To harvest the crop efficiently the combine operator needs to spend pre-harvest time maintaining, adjusting, and setting the combine. Some Iowa growers will face special harvest-time issues this fall, those include:

- Gullies and rills may have been created by intense late summer rainfall and hail-damaged areas. Areas affected by adverse weather should be scouted before harvest for the size and condition of ears as well as gullies or holes that may have formed.
- Fields with wetter corn may have delayed harvest; scout and consider stalk strength before making the decision to delay.

Everyone, regardless of field conditions, should take time to check field losses this fall and make appropriate combine adjustments - especially if significant volunteer corn or soybean escapes were visible after last fall’s harvest.

Field losses

In average-to-good crop conditions when the crop is standing well, field losses attributable to the combine should be one bushel per acre or less. Two corn kernels or four soybeans on the ground per square foot equals one bushel per acre loss. Larger areas should be checked for dropped ears as a single dropped ear represents several hundred kernels. One three-fourth pound whole ear per one-hundredth acre (436 sq ft) equals a one bushel per acre loss.

Combine settings and adjustments

Normal combine adjustments should include review of the operator's manual for suggestions. Start with rotor/cylinder speed at the lower end of acceptable range, then increase speed only as required to keep threshing losses acceptable. Concave clearance should start near the wider end of the range, then be adjusted narrower only enough for acceptable threshing and material flow. Plants that have been hail-damaged are more likely to have grain that is brittle and susceptible to breakage if threshing is not gentle.

In the cleaning shoe, begin with suggested sieve settings and start with fan speed near the higher end of the acceptable range. The objective of fan airflow is to fluidize the material mat on the sieves. Fan speed should be lowered only enough to avoid grain loss. If corn is lighter test weight due to hail or other field conditions, fan speed will need to be reduced somewhat to avoid significant grain being blown from the combine. Cleaning shoe adjustments won't separate off-colored grain if test weight and grain size are identical to good appearing kernels.

If the threshing and cleaning shoe areas are properly adjusted, most machine losses occur at the grain head, particularly for soybeans. Knife sections should be sharp and in register, and flexible cutterbar and header height control in good working order. These adjustments will have even more importance if soybeans are lodged or many low-hanging pods are present. A second, lower hanging ear seems to be more prevalent in some corn fields this year. If harvestable grain is present on the lower ear, adjust cornhead height appropriately. The gap between deck plates above snapping rolls should be adjusted narrow enough to avoid shelling of butt kernels on snapping rolls, but wide enough to avoid excessive stalk breakage. A one and one-fourth inch gap is typical, but this gap should be adjusted as necessary for field conditions. One-way harvest may be considered for severely lodged crops. If corn is severely lodged a reel may not greatly reduce losses, but at least allow a faster field speed while keeping losses at the lowest level for the field conditions that are present.

Safety

Harvest can be a stressful time, particularly during adverse weather or field conditions. Review precautions and take time to ensure safety. In addition to replacing shields, avoiding clearing snapping rolls with power engaged, and making sure the head is blocked before working underneath it, also consider hazards of falling from the combine, fire prevention, and lighting and marking issues.

More information is available in these ISU Extension publications. They can be downloaded free of charge from the extension online store, or you can stop by the extension office and pick one up.

- [AE 3112 Setting combines for harvesting best quality seed and field corn](#)
- [AE 3113 Setting combines for harvesting best soybean seed quality and maximum yield](#)
- [PM 574 Profitable corn harvesting](#)
- [PM 573 Profitable soybean harvesting](#)
- [PM 1265h Harvest safety yields big dividends](#)