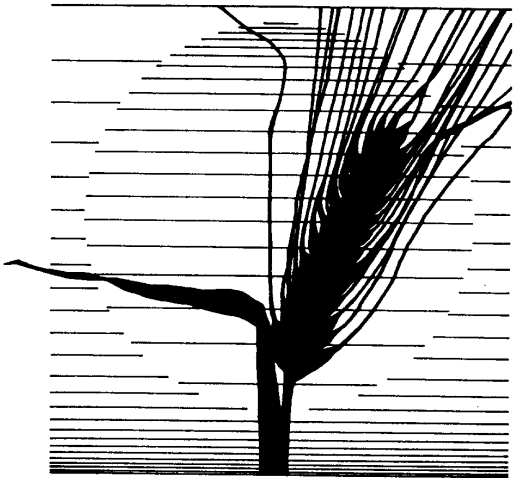


PLANT & PEST ADVISORY

FIELD CROPS/LIVESTOCK EDITION \$1.50

JUNE 25, 1998



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Reduce Losses from Wheat Lodging

Daniel Kluchinski, Mercer County Agricultural Agent

Lodging of wheat is scattered throughout the state, enhanced by heavy rain, wind and hail associated with recent thunder storms. The lodging may be caused by the wind itself, or the wind may have given plants weakened by disease or insect damage the final shove. This may have a significant impact on crop yield and quality.

Lodging is generally caused by winds and heavy rain, excessive nitrogen, or disease and insect pests. Growers have no control over the weather, but they can determine if the lodging was primarily due to weather. Wind-lodged plants tend to lie in one direction. Young plants can recover, although plants may be kinked or bent, but plants near maturity lie flat and make harvest difficult. In addition, lodged plants can have fungal infection of the head, causing reduced yield, bushel weight and grain quality.

Lodging can also be caused by high top dress rates of nitrogen fertilizer applied in late winter, or historic applications of manure or other organic nitrogen sources. Excessive nitrogen promotes lush vegetative growth, making plants prone to lodging. Culm, root and foot diseases can cause lodging. These fungal diseases are favored by moist conditions like those of this past spring. Usually fields that are lodged with plants fallen in various directions are caused by these types of conditions.

What precautions and steps can reduce the chances of lodging?

- Make sure that growing conditions (fertility, pH) are optimum, so a strong healthy stand is established.
- Evaluate nitrogen need. If manure or nitrogen fertilizer carryover may occur from a previous crop, reduce or eliminate at-planting nitrogen application. Consider using the PSNT soil nitrate nitrogen test before planting to determine nitrogen need.
- Plant fields as early as possible in the fall to encourage good root growth prior to freezing conditions.
- Use intensive wheat management techniques to evaluate tillering at green-up and determine topdress N rates. Over application of nitrogen leads to rank growth and is a wasted resource. Also consider field history and reduce N rate if lodging often occurs.
- Scout fields for disease or insect pests, and take necessary precautionary measures to reduce injury to the wheat crop.

SEE LODGING ON PAGE 3

Weekly Pest Summary

6/25/98

Joe Ingerson-Mahar, Field Crops IPM Agent;
Dave Lee, Salem County Ag Agent; Miles
Huffaker, Salem County Program Associate

General

The Field Crops Weekly Pest Summary is updated each week on RCE's FaxInfoLine (732-932-6767) as document 2017. It is updated every Thursday.

Deer damage has been intense in fields in central Jersey. Tom Morgart reports that one field of corn in Mercer County has been completely eaten. Several other fields in the area are also showing significant damage.

Alfalfa

Potato leafhoppers are at or over threshold of approximately 80% of the scouted fields, state-wide. Leafhopper nymphs have been found now in Warren County and are probably present in fields further north. The presence of nymphs induces more feeding injury on the alfalfa, and fields that were just below threshold will probably now exceed threshold.

Otherwise, alfalfa fields generally look good.

Corn

Weed escapes are becoming a problem in some south Jersey fields. Bindweed in unsprayed fields is now growing up onto corn and beginning to mat it down.

Light wireworm injury is present in many south Jersey fields.

Tom Morgart, RCD-USDA, reports that one field of 3 inch tall corn in Hunterdon County is being hit by both armyworm and European corn borer, causing significant damage.

PSNT (pre-sidedress nitrogen quick test) sampling and analysis has been proceeding smoothly and is nearing completion. Most fields in the south do not seem to need extra nitrogen while in north Jersey, most fields appear to need sidedressed nitrogen.

Soybeans

No significant pests observed this past week. Some fields appear yellow and this condition may be related to weather. Slug-damaged no-till fields appear to be recovering.

Wheat

No significant pests observed. □

Field Crops Weed Control

Bradley A. Majek, Ph.D., Weed Science

Postemergence Herbicides

Recent warm, humid, cloudy weather and abundant soil moisture has encouraged crops to grow rapidly without developing the normal protective waxy layer on leaf surfaces. Growers often call plants in this condition "soft". During this period, crops will be more susceptible to injury from postemergence herbicides. To minimize the risk of crop injury:

1. Do *not* tank-mix herbicides or other pesticides that are not specifically cited as safe to apply as tank-mixes.
2. Do *not* use additives unless specifically required for effective results on the herbicide label.
3. Use nonionic surfactants instead of oil concentrates when the label offers the choice of either product.
4. Use the lowest labeled rate of surfactant or oil concentrate labeled.
5. Delay postemergence herbicide applications, if possible, until the crop has experienced 3 to 5 bright, sunny, dry days before applying postemergence herbicides.

Postemergence Weed Control in Soybeans

Options for weed control in soybeans continue to expand, but choosing the right program becomes more difficult. Despite the increased effectiveness and number of weeds controlled by postemergence herbicides, total post programs are not generally recommended.

Preemergence herbicide applications require rain or irrigation after application before weeds emerge to make the herbicide available to the weeds. Dry weather can cause preemergence herbicides to fail.

Cloudy warm humid weather and high soil moisture cause crops to grow fast and "soft", with a thin cuticle (wax layer) on the leaf. The risk of crop injury from postemergence herbicides increases during periods of weather that favor "soft" growing conditions.

Hot dry weather or other factors that cause stress after weeds emerge reduce the effectiveness of postemergence herbicides. Weeds compete effectively and rapidly for moisture when it is hot and dry. Act to control weeds sooner rather than later when heat and drought stress is evident.

Consistent and cost effective broad spectrum weed control that is minimally affected by adverse weather usually requires a preemergence herbicide application and postemergence sprays targeted to control escaped weeds.

SEE WEEDS ON PAGE 3

Postemergence **ANNUAL GRASS** control in soybeans can be easily accomplished with any one of several good products. Identify the grass before spraying the field, and choose the correct rate for your grass problem. The postemergence grass herbicides are all very effective, but each is particularly good for the control of certain grass species. Choose a product that controls the grass in your field, is compatible when tank-mixed with any postemergence broadleaf weed herbicide you need to apply, and is cost effective. Failures are often the result of tank-mixing with unlabeled and incompatible broadleaf weed herbicides, treating grasses in heat or drought stress, or spraying grasses after they have grown larger than the size specified on the label for the herbicide rate used. Be patient! The postemergence grass herbicides work slowly.

Choosing herbicide(s) to control **BROADLEAF WEEDS** postemergence is more difficult. Weed identification and size is the first consideration. Applying the wrong herbicide or spraying weeds that are too big to be controlled is sure to result in failure. Consider the crop that you will plant next year. Some herbicides carryover and have crop rotation restrictions that can limit what can be planted for 2 years or more!

Several very effective herbicides in two chemical families, sulfonyl ureas (SU's) and imidazolinones, have the same single site of action in sensitive weeds. They are called ALS inhibitors. Continuous and exclusive use of herbicides that are ALS inhibitors to control a weed may lead to the development of a resistant biotype in your field. Use ALS inhibitors in rotation with or tank-mixed with other effective herbicides to prevent or delay the development of resistance.

Consider the cost of an herbicide program along with the size and spectrum of weeds controlled, carryover potential and crop rotation restrictions, and the need to rotate or tank-mix ALS inhibitors with herbicides that have a different mode of action. Remember that chorimuron, the active ingredient in Classic, is also one of the two herbicides in Canopy, and that chorimuron, Pursuit, Raptor, and Scepter are ALS inhibitors.

Basagran has been available for many years. The primary target weeds are yellow nutsedge and common cocklebur. Several other broadleaf weeds are also controlled when they are small seedlings. Crop rotations are not restricted after soybean harvest.

Blazer was developed for the control of annual morningglory and nightshade species. In addition, many other seedling Broadleaf weeds are suppressed or controlled. Slight temporary soybean leaf burn may be observed. Crop rotations are not restricted after soybean harvest.

Classic is an extremely effective herbicide for the control of many broadleaf weeds. Common lambsquarter is not controlled. Classic is an ALS inhibitor, and has long crop rotation restrictions.

Cobra suppresses or controls many broadleaf weeds, including nightshade species. Some temporary soybean leaf burn is frequently observed. Cobra is not an ALS inhibitor, and is frequently recommended at reduced rates as a tank-mix partner with ALS inhibitors to improve the number of different broadleaf weeds controlled and to prevent the development of resistance.

Flexstar suppresses or controls many broadleaf weeds, including nightshade species. Slight temporary soybean leaf burn may be observed. Flexstar has crop rotation restrictions.

Pinnacle is an extremely effective herbicide for the control of

common lambsquarter. Pinnacle is an ALS inhibitor.

Pursuit is a residual herbicide that can also control weeds postemergence. Several hard to control weeds, including common cocklebur and nightshade can be killed, but common ragweed and common lambsquarter control may not be acceptable. Pursuit is an ALS inhibitor, and has long crop rotation restrictions.

Raptor is an imidazolinone herbicide related to Pursuit and Scepter, but with less soil activity and carryover. Applications of are made postemergence to the soybeans and target weeds. The spectrum of weeds controlled is similar to Pursuit.

Reflex suppresses or controls many broadleaf weeds, including nightshade species. Slight temporary soybean leaf burn may be observed. Reflex has long crop rotation restrictions.

Resource is an herbicide that is very effective for the control of velvetleaf. Resource is labeled to control velvetleaf in soybeans up to 30 inches tall.

Scepter is a residual herbicide that can also control weeds postemergence. Several hard to control weeds, including common cocklebur and pigweed can be killed, but control of certain other broadleaf weeds may not be acceptable. Scepter is an ALS inhibitor, and has long crop rotation restrictions.

Stellar is a jug-mix of Cobra plus Resource.

Storm is a jug-mix of Basagran and Blazer.

Synchrony STS is a package-mix of Classic and Pinnacle labeled for use in STS soybeans *only!* Synchrony STS is an ALS inhibitor, and has long crop rotation restrictions.

Always read and follow label instructions, and consult the [Pest Management Recommendations for Field Crops Manual](#) for additional information. □

LODGING FROM PAGE 1

- If fields are lodged, start harvesting a bit early to minimize test weight losses and to harvest grain before conditions worsen. Consider, however, the availability of storage, and the additional costs of drying the grain from a higher moisture content. □

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