ROUNDUP READY PLUS.
CROP MANAGEMENT SOLUTIONS

Post-Harvest Weed Management - South

What You'll Learn...

- Post-harvest is a good time to initiate weed management plans for winter annual, biennial, and perennial weeds.
- Achieving and maintaining post-harvest weed management can help decrease weed pressure, herbicide-resistant weed species, and costs associated with field preparation for the next growing season.
- Controlling weeds after harvest may be more difficult in southern regions as there can be several months of good growing conditions for weeds.

Impact of Weeds on Yield Potential

Weeds compete with crops for limited resources such as water, nutrients, light, and space. Weeds have also been shown to alter the growth of crop plant seedlings even before the competition for resources begins. For example, weeds growing in close proximity to corn can change the quality of light following reflection off the weed foliage which may negatively impact corn productivity.[1] This may help to explain yield losses that are often more than expected from competition early in the season when the demand for light, water, and nutrients is limited. Weeds can reduce yields and harvest efficiency, and produce seed that can affect future crops.

Post-Harvest Weed Management Strategies

Weed control after harvest can be an essential component of an overall weed management strategy. Controlling weeds after harvest can help spread out the workload prior to spring planting, and can help reduce weed seed production.

During and after harvest, scout fields to determine the weed species present and control these weeds until temperatures are low enough to limit germination. Any summer annual weeds that were cut-off during harvest need time to produce new leaf growth prior to a herbicide application. Weed management strategies can include:

- Shredding of crop residue to create a mulch, especially effective after harvesting corn or grain sorghum.
- Application of a non-selective herbicide to control emerged weeds.
- Application of Roundup® brand glyphosate-only agricultural herbicides with 2,4-D.
- Application of a residual herbicide can be used to prevent weed emergence.[2]
- Multiple tillage operations may be used later in the fall to control small weeds.[3]
  - Keep in mind that post-harvest tillage may move weed seed towards the soil surface and encourage germination. To prevent the spread of weed seed, clean tillage equipment before moving to a new field.

It is important to remember that the main goal of the selected strategy is to prevent weed seed production. For tough to control weeds in your area, work with your local brand representative to identify the best weed management strategy to implement, and visit www.roundupreadyPLUS.com for the latest information and recommendations for weed management.

Herbicide Options and Considerations

Several herbicide options are available to help provide post-harvest weed management. A non-selective herbicide may be used after harvest to kill vegetation in the field. When glyphosate-resistant weeds are present, one option is to use a non-selective herbicide containing paraquat on emerged weeds. When using paraquat herbicides to manage tough to control weeds, such as Palmer amaranth, apply prior to weeds reaching 4-inches in height for the most consistent control.

To broaden and lengthen weed management, a contact herbicide, should be tankmixed with a residual herbicide. Refer to product labels for tank mix partners. Residual herbicide selection is critical since some products may remain active in the soil and may influence the selection of next year's crop. Herbicide labels should be checked for plant back and rotational crop restrictions. Because of the

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array of herbicide products and strategies available, it is important to work with your local brand representative to determine the best options for your fields.

Fields with weeds that set seed in the fall may have dramatically higher weed populations during the next growing season. Knowledge of the weed species in a field and the competitiveness, emergence pattern, and density of the weed community can be used to develop effective herbicide programs. Other management practices can be developed to minimize reduction in yield potential, herbicide resistance, and control aggressive weed species. Controlling weed populations post-harvest can help reduce weed populations from year-to-year and allow for more efficient use of herbicides and cultural practices during the growing season.

Sources:

[1] Rajcan, I., Chandler, K.J., and Swanton, C.J. 2004. Red-far-red ratio of reflected light: a hypothesis of why early-season weed control is important in corn. Weed Science 52:774-778.Weed Science Society of America.
[2] Mississippi Soybean Promotion Board. 2011. Fall tillage key to controlling weeds and disease in the spring. http://mssoy.org/.
[3] Eubank, T. and Bond, J. Post-harvest weed control options. Mississippi State University Cooperative Extension Service. Weed Control Guidelines 2017. http://www.mississippi-crops.com/.
[4] 2017 Recommended chemicals for weed and brush control. University of Arkansas Extension. MP-44. http://www.uaex.edu/.
Web sources verified 08/16/2017

For additional information, contact your local seed representative. Developed in partnership with Technology, Development & Agronomy by Monsanto.