TECHNOLOGY USE GUIDE

THE SOURCE FOR MONSANTO'S PORTFOLIO OF TECHNOLOGY PRODUCTS, STEWARDSHIP REQUIREMENTS AND GUIDELINES FOR USE.

2010

MONSANTO

Since 1996, biotech crops have delivered environmental and economic benefits to both farmers and consumers.

Increased
$44 Billion
farmers' net income

Saved
475 Million
gallons of diesel fuel through reduced tillage or plowing

Grown by
13.3 Million
farmers worldwide

0
reliably documented human or animal safety issues

Decreased
359,000
metric tons*
of pesticide applications

Eliminated
10 Million
metric tons
of greenhouse gas emissions through fuel savings

Decreased
environmental impact quotient by
17.2% (EIQ)

Have been ingredients in an estimated
1,000,000,000,000
meals consumed

Source: www.biotech-gmo.com

*Pesticides registered by the U.S. EPA will not cause unreasonable adverse effects to man or the environment when used in accordance with label directions.

RE:NEW

YOUR ABILITY TO ENHANCE YOUR CROPS TODAY!

It's time to ReNEW your license

If you haven't renewed your Monsanto Technology/Stewardship Agreement (MTSA) in the past nine months, **take care of it today!**

Signing the MTSA ensures you'll have access to current and next-wave technologies. These innovations will enhance plant drought tolerance, cold tolerance, nitrogen use efficiency, yield and much more!

CALL

1-800-768-6387, Option 3

You'll then have the option to complete the process online or through conventional mail.

Paper MTSA's will continue to be accepted.

Introduction

This 2010 Technology Use Guide (TUG) provides a concise source of technical information about Monsanto's current portfolio of technology products and sets forth requirements and guidelines for the use of these products. As a user of Monsanto Technology, it is important that you are familiar with and follow certain management practices. Please read all of the information pertaining to the technology you will be using, including stewardship and related information. Growers must read the Insect Resistance Management (IRM)/Grower Guide prior to planting for important information on planting and IRM.

This technical guide is not a pesticide product label. It is intended to provide additional information and to highlight approved uses from the product labeling. Read and follow all precautions and use instructions in the label booklet and separately published supplemental labeling for the Roundup® agricultural herbicide product you are using.

Included in this guide is information on the following:

If you have any questions, contact your Authorized Retailer or Monsanto at 1-800-768-6387.

A Message About Stewardship - SEED AND TRAITS

Monsanto Company is committed to enhancing farmer productivity and profitability through the introduction of new agricultural biotechnology traits. These new technologies bring enhanced value and benefits to farmers, and farmers assume new responsibilities for proper management of these traits. Farmers planting seed with biotech traits agree to implement good stewardship practices, including, but not limited to:

- Reading, signing and complying with the Monsanto Technology/Stewardship Agreement (MTSA) and reading all annual license terms updates before purchase or use of any seed containing a trait.
- Reading and following the directions for use on all product labels.
- Following applicable stewardship practices as outlined in this TUG.
- Reading and following the IRM/Grower Guide prior to planting.
- Observing regional planting restrictions mandated by the U.S. Environmental Protection Agency (EPA).
- Complying with any additional stewardship requirements, such as grain or feed use agreements or geographical planting restrictions, that Monsanto deems appropriate or necessary to implement for proper stewardship or regulatory compliance.
- Following the Weed Resistance Management Guidelines to minimize the risk of resistance development.
- Complying with the applicable IRM practices for specific biotech traits as *mandated* by the EPA and set forth in this TUG.
- Utilizing all seed with biotech traits only for planting a single crop.
- Selling crops or material containing biotech traits only to grain handlers that confirm their acceptance, or using those products on farm.
- Not moving material containing biotech traits across boundaries into nations where import is not permitted.
- Not selling, promoting and/or distributing within a state where the product is not yet registered.

CROP OR MATERIAL HANDLING STEWARDSHIP STATEMENT

Monsanto Company is a member of Excellence Through Stewardship® (ETS). Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. This product has been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Biotechnology Industry Organization.

WHY IS STEWARDSHIP IMPORTANT?

Each component of stewardship offers benefits to farmers:

- Signing the MTSA provides farmers access to Monsanto's biotech trait seed technology.
- Following IRM guidelines guards against insect resistance to *Bacillus thuringiensis (B.t.)* technology and therefore enables the long-term viability of this technology, and meets EPA requirements.
- Proper weed management maintains the long-term effectiveness of glyphosate-based weed control solutions.
- Utilizing biotech seed only for planting a single-commercial crop helps preserve the effectiveness of biotech traits, while allowing investment for future biotech innovations which further improves farming technology and productivity.

Practicing these stewardship activities will enable biotechnology's positive agricultural contributions to continue.

Farmers' attitudes and adoption of sound stewardship principles, coupled with biotechnology benefits, provide for the sustainability of our land resources, biotechnology and farming as a preferred way of life.

SEED PATENT INFRINGEMENT

If Monsanto reasonably believes that a farmer has planted saved seed containing a Monsanto biotech trait, Monsanto will request invoices and records to confirm that fields in question have been planted with newly purchased seed. If this information is not provided within 30 days, Monsanto may inspect and test all of the farmer's fields to determine if saved seed has been planted. Any inspections will be coordinated with the farmer and performed at a reasonable time to best accommodate the farmer's schedule.

If you have questions about seed stewardship or become aware of individuals utilizing biotech traits in a manner other than as noted above, please call 1-800-768-6387. Letters reporting unacceptable or unauthorized use of biotech traits may be sent to:

Monsanto Trait Stewardship
800 N. Lindbergh Boulevard NC3C
St. Louis, MO 63167

For more information on Monsanto's practices related to seed patent infringement, please visit: www.monsanto.com/seedpatentprotection.

Provide Anonymous or Confidential reports as follows:

"Anonymous" reporting results when a person reports information to Monsanto in such a way that the identity of the person reporting the information cannot be identified. This kind of reporting includes telephone calls requesting anonymity and unsigned letters.

"Confidential" reporting results when a person reports information to Monsanto in such a way that the reporting person's identity is known to Monsanto. Every effort will be made to protect a person's identity, but it is important to understand that a court may order Monsanto to reveal the identity of people who are "known" to have supplied relevant information.

The Beyond the Seed Program was launched by the American Seed Trade Association (ASTA) to raise awareness and understanding of the value that goes beyond the seed. The future success of U.S. agriculture depends upon quality seed delivered by an industry commitment to bring innovation and performance through continued investment. For more information about seed technology, visit ASTA's Beyond the Seed Program at www.beyondtheseed.org.

Genuity™ Unites the Best Traits*

As a purchaser of Monsanto biotech trait products, your investment helps fuel the research and development engine that leads to the discovery and delivery of new technologies for agriculture. Current and future Genuity™ traits are designed to deliver high yield potential, maximize return on seed investments and consistently deliver future trait innovations.

CORN

Higher yields come from quality grain. Genuity™ VT Triple PRO™ was the next generation of corn technology available for the 2009 growing season. Genuity™ VT Triple PRO™ provides dual modes of action against above-ground pests such as corn earworm, European and southwestern corn borers, sugarcane borer, southern cornstalk borer and fall armyworm. Reduced kernel damage from corn earworm means the potential for reduced Aflatoxin contamination. Genuity™ VT Triple PRO™ dual modes-of-action also allows for a reduction in refuge acres required in southern cotton-growing regions while providing long-term effectiveness and consistency.

GENUITY™ SMARTSTAX™

Scheduled for launch in 2010, Genuity™ SmartStax™ is the most-advanced, all-in-one corn trait system that controls the broadest spectrum of above- and below-ground insects and weeds. Genuity™ SmartStax™ provides control of corn earworm, European corn borer, southwestern corn borer, sugarcane borer, fall armyworm, western bean cutworm, black cutworm, western corn rootworm, northern corn rootworm and Mexican corn rootworm. Genuity™ SmartStax™ contains Roundup Ready® 2 Technology and LibertyLink® herbicide tolerance. Genuity™ SmartStax™ also allows for a reduction in refuge acres in the corn belt from 20% down to 5% for above- and below-ground refuge. Genuity™ SmartStax™ is also approved for a 20% refuge in the cotton belt.

SOYBEAN

Genuity™ Roundup Ready 2 Yield® soybeans are taking yield to a higher level. They were developed to provide farmers with the same simple, dependable and flexible weed control and crop safety they've come to rely on with the first-generation Roundup Ready® soybean system, but with higher yield potential. This is possible because of advanced insertion and selection technologies.

COTTON

Genuity™ Roundup Ready® Flex and Genuity™ Bollgard II® offer the ultimate combination of peace of mind and flexibility. They contain unrivaled built-in worm control to stop the most leaf- and boll-feeding worm species, including bollworms, budworms, armyworms, loopers, saltmarsh caterpillars and cotton leaf perforators. Protecting just one additional boll per plant can result in significantly higher lint yield. The convenience and savings from fewer or no sprays for worms can make a big difference when it comes to the bottom line.

SPECIALTY

Genuity™ Roundup Ready® alfalfa: Bred from an innovative germplasm pool, it offers outstanding weed control, excellent crop safety and preservation of forage quality potential.

Genuity™ Roundup Ready® canola: Offers excellent control of broadleaf weeds and grasses, even in tough weather conditions. Also features excellent crop safety and broad application flexibility.

Genuity™ Roundup Ready® sugarbeets: Excellent in-plant tolerance to over-the-top applications of labeled Roundup agricultural herbicides. Offers outstanding weed control, excellent crop safety and preservation of yield potential.

*See pages 16 and 17 for additional traits.

NOTE: Farmers must read the IRM/Grower Guide prior to planting for information on planting and Insect Resistance Management.

Monsanto's New Generation of Technologies

As Monsanto continues to develop new generations of technologies, several of our newer technologies are migrating to the Genuity™ brand. These products and their new logos are presented below.

CORN

YieldGard VT Triple PRO → genuity™ VT Triple PRO

SOYBEANS

Roundup Ready 2 YIELD → genuity™ Roundup Ready 2 Yield

COTTON

Roundup Ready FLEX COTTON → genuity™ Roundup Ready Flex

Bollgard II → genuity™ Bollgard II

Bollgard II with Roundup Ready Cotton → genuity™ Bollgard II + Roundup Ready COTTON

Bollgard II with Roundup Ready flex → genuity™ Roundup Ready Flex + Bollgard II

SPECIALTY

Roundup Ready ALFALFA (Grow the Feed, Not the Weeds.) + Roundup Ready CANOLA + Roundup Ready SUGARBEETS → genuity™ Roundup Ready

An **EFFECTIVE** IRM program is a vital part of responsible product stewardship for insect-protected biotech products. Monsanto is committed to implementing an effective IRM program for all of its insect-protected *B.t.* technologies in all countries where they are commercialized, including promoting farmer awareness of these IRM programs. Monsanto works to develop and implement IRM programs that strike a balance between available knowledge and practicality, with farmer acceptance and implementation of the plan as critical components.

The U.S. EPA requires that Monsanto implement, and farmers who purchase insect-protected products follow, an IRM plan.* IRM programs for *B.t.* traits are based upon an assessment of the biology of the major target pests, farmer needs and practices, and appropriate pest management practices. These **mandatory regulatory programs** have been developed and updated through broad cooperation with farmer and consultant organizations, including the National Corn Growers Association and the National Cotton Council, extension specialists, academic scientists, and regulatory agencies.

*In some areas, a natural refuge option is available for Bollgard II. See the current IRM/Grower Guide for details.

The IRM programs for planting seeds containing *B.t.* traits contain several important elements. One key component of an IRM plan is a refuge. A refuge is simply a portion of the relevant crop (corn or cotton) that does not contain a *B.t.* technology for the control of the insect pests which are controlled by the planted technology(ies). The lack of exposure to the *B.t.* proteins means that there will be susceptible insects nearby to mate with any rare resistant insects that may emerge from *B.t.* products. Susceptibility to *B.t.* products is then passed on to offspring, preserving the long-term effectiveness of the technology.

Farmers who purchase seeds containing *B.t.* traits must plant an appropriately designed refuge. Refuge size, configuration, and management is described in detail in the sections on those products in the 2010 IRM/Grower Guide.

Failure to follow IRM requirements and to plant a proper refuge may result in the loss of a farmer's access to Monsanto technologies. Monsanto is committed to the preservation of *B.t.* technologies. Please do your part to preserve *B.t.* technologies by implementing the correct IRM plan on your farm.

MONITORING PROGRAM

The U.S. EPA requires Monsanto to take corrective measures in response to a finding of IRM non-compliance. Monsanto or an approved agent of Monsanto must monitor refuge management practices. The MTSA signed by a farmer requires that upon request by Monsanto or its approved agent, a farmer must provide the location of all fields planted with Monsanto technologies and the locations of all associated refuge areas as **required**, to cooperate fully with any field inspections, and allow Monsanto to inspect all fields and refuge areas to ensure an approved insect resistance program has been followed. All inspections will be performed at a reasonable time and arranged in advance with the farmer so that the farmer can be present if desired.

IRM GUIDELINES

Farmers must read the current IRM/Grower Guide prior to planting for information on planting and IRM. If you do not have a copy of the current IRM/Grower Guide, you may downloaded it at **www.monsanto.com**, or you may call 1-800-768-6387 to request a copy by mail.

Monsanto considers product stewardship to be a fundamental component of customer service and responsible business practices. As leaders in the development and stewardship of Roundup® agricultural herbicides and other products, Monsanto invests significantly in research to continuously improve the proper uses and stewardship of our proprietary herbicide brands.

This research, done in conjunction with academic scientists, extension specialists and crop consultants, includes an evaluation of the factors that can contribute to the development of weed resistance and how to properly manage weeds to delay the selection for weed resistance. Visit **www.weedtool.com** for practical, best practices-based information on reducing the risk for development of glyphosate-resistant weeds. Developed in cooperation with academic experts, the website provides options for managing the risk on a field-by-field basis.

Glyphosate is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. The following general recommendations help manage the risk of weed resistance occurring.

WEED RESISTANCE MANAGEMENT PRACTICES:

- Scout your fields before and after herbicide application
- Start with a clean field, using either a burndown herbicide application or tillage
- Control weeds early when they are small
- Add other herbicides (e.g. a selective in-crop and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) as part of your Roundup Ready® cropping system where appropriate
- Rotation to other Roundup Ready crops will add opportunities for introduction of other modes of action
- Use the right herbicide product at the right rate and the right time
- Control weed escapes and prevent weeds from setting seeds
- Clean equipment before moving from field to field to minimize spread of weed seed
- Use new commercial seed that is as free from weed seed as possible

Monsanto is committed to the proper use and long-term effectiveness of its proprietary herbicide brands through a four-part stewardship program: developing appropriate weed control recommendations, continuing research to refine and update recommendations, education on the importance of good weed management practices and responding to repeated weed control inquiries through a product performance evaluation program.

GLYPHOSATE-RESISTANT WEEDS

Monsanto actively investigates and studies weed control complaints and claims of weed resistance. When glyphosate-resistant weed biotypes have been confirmed, Monsanto alerts farmers and develops and provides farmers with recommended control measures, which may include additional herbicides, tank-mixes or cultural practices. Monsanto actively communicates all of this information to farmers through multiple channels, including the herbicide label, **www.weedscience.org**, supplemental labeling, this TUG, media and written communications, Monsanto's website, **www.weedresistancemanagement.com**, and farmer meetings.

Farmers must be aware of, and proactively manage for, glyphosate-resistant weeds in planning their weed control program. When a weed is known to be resistant to glyphosate, then a resistant population of that weed is by definition no longer controlled with labeled rates of glyphosate. Roundup® agricultural herbicide warranties will not cover the failure to control glyphosate-resistant weed populations.

Report any incidence of repeated non-performance on a particular weed to your local Monsanto representative, retailer or county extension agent.

Note: Always read and follow all pesticide label requirements.

ROUNDUP BRAND AGRICULTURAL OVER-THE-TOP HERBICIDE PRODUCTS

Read and follow all product labeling before using Roundup agricultural herbicides over the top of products with Roundup Ready Technology.

You may use another glyphosate herbicide, but only if it has federally approved label instructions for use over that specific Roundup Ready crop, and the product and the use label for that Roundup Ready crop has been approved by your specific state. Contact the product manufacturers, the local retailers or the local extension agents for confirmation that the products carry EPA and state approved labeling for this use. **MONSANTO DOES NOT MAKE ANY REPRESENTATIONS, WARRANTIES OR RECOMMENDATIONS CONCERNING THE USE OF GLYPHOSATE PRODUCTS SUPPLIED BY OTHER COMPANIES WHICH ARE LABELED FOR USE OVER ROUNDUP READY CROPS. MONSANTO SPECIFICALLY DENIES ALL RESPONSIBILITY AND DISCLAIMS ANY LIABILITY FOR ANY DAMAGE FROM THE USE OF THESE PRODUCTS IN ROUNDUP READY CROPS. ALL QUESTIONS AND COMPLAINTS CAUSED BY THE USE OF GLYPHOSATE PRODUCTS SUPPLIED BY OTHER COMPANIES SHOULD BE DIRECTED TO THE SUPPLIER OF THE PRODUCT IN QUESTION.**

MONSANTO BRANDS OF SELECTIVE OVER-THE-TOP HERBICIDE PRODUCTS

Herbicide products sold by Monsanto for use over the top of Roundup Ready crops for the 2010 crop season are as follows:

Roundup WeatherMAX®

Roundup PowerMAX®

Read and follow all product labeling before using Roundup agricultural herbicides over the top of Roundup Ready traits. To learn more about applicable supplemental labels or fact sheets, call 1-800-768-6387.

Tank-mixtures of Roundup agricultural herbicides with insecticides, fungicides, micronutrients or foliar fertilizers are not recommended as they may result in reduced weed control, crop injury, reduced pest control or antagonism. Refer to the Roundup agricultural herbicide product label, supplemental labeling or fact sheets published separately by Monsanto for tank-mix recommendations.

Do not add additional surfactants and/or products containing surfactants to these Roundup agricultural herbicides unless otherwise directed by the label. Other glyphosate products labeled for use in Roundup Ready technologies may require the addition of surfactants, or other additives to optimize performance, that may increase the potential for crop injury. Monsanto will label and promote only fully tested brands that do not require surfactants and other additives for over-the-top applications to Roundup Ready Crops.

GLYPHOSATE ENDANGERED SPECIES INITIATIVE

Before making applications of glyphosate-based herbicide products, licensed farmers of crops containing Roundup Ready technology must access the website **www.pre-serve.org** to determine whether any mitigation requirements apply to the planned application to those crops, and must follow all applicable requirements. The mitigation measures described on the website are appropriate for all applications of glyphosate-based herbicides to all crop lands.

Farmers making only ground applications to crop land with a use rate of less than 3.5 lbs of glyphosate a.e./A are not required to access the website. If a farmer does not have web access, the seed dealer can access the website on behalf of the farmer to determine the applicable requirements, or the farmer can call 1-800-332-3111 for assistance.

RECOMMENDATIONS FOR MANAGING GLYPHOSATE-RESISTANT WEEDS IN ROUNDUP READY CROPS

In certain areas, populations of ryegrass, johnsongrass, marestail, common ragweed, giant ragweed, *Palmer Amaranth* and waterhemp are known to be resistant to glyphosate. For control recommendations for resistant biotypes of these weeds, refer to **www.weedresistancemanagement.com** or call 1-800-768-6387. When approved, supplemental labeling for specific herbicide products can also be viewed on **www.cdms.net** or **www.greenbook.net** or obtained by calling 1-800-768-6387.

Coexistence in agricultural production systems and supply chains is not new. Different agricultural systems have coexisted successfully for many years around the world. Standards and best practices were established decades ago and have continually evolved to deliver high purity seed and grain to support production, distribution and trade of products from different agricultural systems. For example, production of similar commodities such as field corn, sweet corn and popcorn has occurred successfully and in close proximity for many years. Another example is the successful coexistence of oilseed rape varieties with low erucic acid content for food use and high erucic acid content for industrial uses.

The introduction of biotech crops generated renewed discussion of coexistence focused on biotech production systems with conventional cropping systems and organic production. These discussions have primarily focused on the potential economic impact of the introduction of biotech products on other systems. The health and safety of biotech products are not an issue because their food, feed and environmental safety must be demonstrated before they enter the agricultural production system and supply chain.

The coexistence of conventional, organic and biotech crops has been the subject of several studies and reports. These reports conclude that coexistence among biotech and non-biotech crops is not only possible but is occurring. They recommend that coexistence strategies be developed on a case-by-case basis considering the diversity of products currently in the market and under development, the agronomic and biological differences in the crops themselves and variations in regional farming practices and infrastructures. Furthermore, coexistence strategies are driven by market needs and should be developed using current science-based industry standards and management practices. The strategies must be flexible, facilitating options and choice for the farmer and the food/feed supply chain, and must be capable of being modified as changes in markets and products warrant.

Successful coexistence of all agricultural systems is achievable and depends on cooperation, flexibility and mutual respect for each system. Agriculture has a history of innovation and change, and farmers have always adapted to new approaches or challenges by utilizing appropriate strategies, farm management practices and new technologies.

The responsibility for implementing practices to satisfy specific marketing standards or certification lies with that farmer who is growing a crop to satisfy a particular market. Only that farmer is instructed to employ the practices appropriate to assure the integrity of his/her crop. This is true whether the goal is high-oil corn, white/sweet corn or organically produced yellow corn for animal feed. In each case, the farmer is seeking to produce a crop that is supported by a market price and consequently that farmer assumes responsibility for satisfying reasonable market specifications. That said, the farmer needs to be aware of the planting intentions of his/her neighbor in order to gauge the need for management practices.

IDENTITY PRESERVED PRODUCTION

Some farmers may choose to preserve the identity of their crops to meet specific markets. Examples of Identity Preserved (I.P.) corn crops include production of seed corn, white, waxy or sweet corn, specialty oil or protein crops, food grade crops and any other crop that meets specialty needs, including organic and non-genetically enhanced specifications. Farmers of these crops assume the responsibility and receive the benefit for ensuring that their crop meets mutually agreed contract specifications.

Based on historical experience with a broad range of I.P. crops, the industry has developed generally accepted I.P. agricultural practices. These practices are intended to manage I.P. production to meet quality specifications, and are established for a broad range of I.P. needs. The accepted practice with I.P. crops is that each I.P. farmer has the responsibility to implement any necessary processes. These processes may include sourcing seed appropriate for I.P. specifications, field management practices such as adequate isolation distances, buffers between crops, border rows, planned differences in maturity between adjacent fields that might cross-pollinate and harvest and handling practices designed to prevent mixing and to maintain product quality. These extra steps associated with I.P. crop production are generally accompanied by incremental increases in cost of production and consequently of the goods sold.

General Instructions for Management of Pollen Flow and Mechanical Mixing

For all crop hybrids or varieties that they wish to identity preserve, or otherwise keep separated, farmers should take steps to prevent mechanical mixing. Farmers should make sure all seed storage areas, transportation vehicles and planter boxes are cleaned thoroughly both prior to and subsequent to the storage, transportation or planting of the crop. Farmers should also make sure all combines, harvesters and transportation vehicles used at harvest are cleaned thoroughly both prior to and subsequent to their use in connection with the harvest of the grain produced from the crop. Farmers should also make sure all harvested grain is stored in clean storage areas where the identity of the grain can be preserved.

Self-pollinated crops, such as soybeans, do not present a risk of mixing by cross-pollination. If the intent is to use or market the product of a self-pollinated crop separately from general commodity use, farmers should plant fields a sufficient distance away from other crops to prevent mechanical mixture.

Farmers planting cross-pollinated crops, such as corn or alfalfa, who desire to preserve the identity of these crops, or to minimize the potential for these crops to outcross with adjacent fields of the same crop kind, should use the same generally accepted practices to manage mixing that are used in any of the currently grown I.P. crops of similar crop kind.

It is generally recognized in the industry that a certain amount of incidental, trace level pollen movement occurs, and it is not possible to achieve 100% purity of seed or grain in any corn production system. A number of factors can influence the occurrence and extent of pollen movement. As stewards of technology, farmers are expected to consider these factors and talk with their neighbors about their cropping intentions.

Farmers should take into account the following factors that can affect the occurrence and extent of cross-pollination to or from other fields. Information that is more specific to the crop and region may be available from state extension offices.

- Cross-pollination is limited. Some plants, such as potatoes, are incapable of cross-pollinating, while others, like alfalfa, require cross-pollination to produce seed. Importantly, cross-pollination only occurs within the same crop kind, like corn to corn.
- The amount of pollen produced within the field can vary. The pollen produced by the crop within a given field, known as pollen load, is typically high enough to pollinate all of the plants in the field. Therefore, most of the pollen that may enter from other fields falls on plants that have already been pollinated with pollen that originated from plants within the field. In crops such as alfalfa, the hay cutting management schedule significantly limits or eliminates bloom, and thereby restricts the potential for pollen and/or viable seed formation.
- The existence and/or degree of overlap in the pollination period of crops in adjacent fields varies. This will vary depending on the maturity of crops, planting dates and the weather. For corn, the typical pollen shed period lasts from 5 to 10 days for a particular field. Therefore, viable pollen from neighboring fields must be present when silks are receptive in the recipient field during this brief period to produce any grain with traits introduced by the out-of-field pollen.
- Distance between fields of different varieties or hybrids of the same crop: The greater the distance between fields the less likely their pollen will remain viable and have an opportunity to mix and produce an outcross. For wind-pollinated crops, most cross-pollination occurs within the outermost few rows of the field. In fact, many white and waxy corn production contracts ask the farmer to remove the outer 12 rows (30 ft.) of the field in order to remove most of the impurities that could result from cross-pollination with nearby yellow dent corn. Furthermore, research has also shown that as fields become further separated, the incidence of wind-modulated cross-pollination drops rapidly. Essentially, the in-field pollen has an advantage over the pollen coming from other fields for receptive silks because of its volume and proximity to silks.
- The distance pollen moves. How far pollen can travel depends on many environmental factors, including weather during pollination, especially wind direction and velocity, temperature and humidity. For bee-pollinated crops, the farmer's choice of pollinator species and apiary management practice may reduce field-to-field pollination potential. All these factors will vary from season to season, and some factors from day to day and from location to location.
- For wind-pollinated crops, the orientation and width of the adjacent field in relation to the dominant wind direction. Fields oriented upwind during pollination will show dramatically lower cross-pollination for wind-pollinated crops, like corn, compared to fields located downwind.

Advanced breeding and biotechnology have had a major impact on farming production. From 1971 to 1995, average corn yields were increasing at a rate of 1.5 bushels per acre, per year. Since the advent of biotech in 1996, corn yields have increased at a rate of 2.6 bushels per acre, per year, for a total increase of 32 bushels per acre.*

Excellence Through Stewardship

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IRM GUIDELINES

For specific refuge requirements for *B.t.* corn and cotton, see the current IRM/Grower Guide, sent with this TUG. If you have not received a copy of this Guide, it can be downloaded at **www.monsanto.com**, or call 1-800-768-6387 to request a copy be mailed to you.

RESPECT THE REFUGE®

Insect Resistance Management
Planting Refuges, Preserving Technology

Before opening a bag of seed, be sure to read and understand the stewardship requirements, **including applicable refuge requirements for insect resistance management,** for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.

* USDA Yields were calculated using 3 year rolling averages (32 Yield is 2.6 bu/ac *12 years). 2008 Yield is from Doane Ag Services forecast in April 8, 2008 Quarterly Crop Outlook.

Genuity™ Trait Products and YieldGard® Corn Technologies Product Descriptions

GENUITY™ SMARTSTAX™

Scheduled to launch in 2010, Genuity™ SmartStax™ is the most advanced, all-in-one corn trait system that controls the broadest spectrum of above- and below-ground insects and weeds. Genuity™ SmartStax™ hybrids will contain *B.t.* proteins that represent three separate modes of action for control of lepidopteron, above-ground insect pests, as well as combined modes of action for control of coleopteran, below-ground insect pests. Providing multiple *B.t.* proteins for control will dramatically decrease the probability that insects will become resistant to the traits, resulting in enhanced durability of transgenic insect control via *B.t.* genes. Based on this multiple gene approach, Genuity™ SmartStax™ is approved for reduced refuge in the corn belt from 20% down to 5% for both above- and below-ground pests. The cotton belt refuge for Genuity SmartStax™ is also reduced, from 50% down to 20%.

GENUITY™ VT TRIPLE PRO™

(Formerly YieldGard VT Triple PRO™) — Genuity™ VT Triple PRO™ is available in selected southern corn- and cotton-growing areas. It includes broad-spectrum insect control against corn earworm, European and southwestern corn borers, sugarcane borer, southern cornstalk borer, fall armyworm, western corn rootworm, northern corn rootworm and Mexican corn rootworm. Its advanced control of ear pests can result in higher grain quality and higher-yielding crop potential. The dual mode-of-action of Genuity™ VT Triple PRO™ allows for lower corn borer refuge acres in southern cotton-growing areas compared to other registered *B.t.*-traited products. It includes the same Roundup Ready® 2 Technology as Monsanto's previous product, YieldGard VT Triple. Seed containing Genuity™ VT Triple PRO™ technology is treated with seed-applied insecticide.*

YIELDGARD VT TRIPLE®

YieldGard VT Triple technology combines YieldGard Corn Borer and YieldGard VT Rootworm/RR2® technology into a single plant. YieldGard VT Triple corn hybrids control European and south-western corn borer, sugarcane borer, southern cornstalk borer, western corn rootworm, northern corn rootworm and Mexican corn rootworm. YieldGard VT Triple technology suppresses corn earworm, fall armyworm and stalk borer. By providing in-plant protection against the above insect pests, the genetic yield potential of YieldGard VT Triple corn hybrids is preserved. YieldGard VT Triple corn hybrids also include Roundup Ready 2 Technology. This trait allows a farmer to experience the benefits of utilizing Roundup agricultural herbicides in a weed control system that provides the broadest weed control spectrum available, better application flexibility, and superior crop safety. Seed containing YieldGard VT Triple technology is treated with seed-applied insecticide.*

GENUITY™ VT DOUBLE PRO™

Genuity™ VT Double PRO™ is a new corn technology scheduled for launch in 2010. It includes broad-spectrum insect control against corn earworm, European and southwestern corn borers, sugarcane borer, southern cornstalk borer and fall armyworm. The dual mode-of-action of Genuity™ VT Double PRO™ allows for lower corn borer refuge acres compared to other registered *B.t.*-traited products. Seed containing Genuity™ VT Double PRO™ technology is treated with seed-applied insecticide.*

*A seed-applied insecticide can protect seed, roots and seedlings from insects such as black cutworm, wireworm, white grubs, seed corn maggots, chinch bug and early flea beetles.

YIELDGARD VT ROOTWORM/RR2®

YieldGard VT Rootworm/RR2 technology is the current YieldGard stacked-trait product for control of western corn rootworm, northern corn rootworm and Mexican corn rootworm. Protecting the root of the corn plant from feeding by corn rootworm larvae decreases lodging and protects the genetic yield potential of YieldGard VT Rootworm/RR2 corn hybrids. The Roundup Ready 2 Technology allows a farmer to experience the benefits of utilizing Roundup agricultural herbicides in a weed control system that provides the broadest weed control spectrum, better application flexibility and superior crop safety. Seed containing YieldGard VT Rootworm/RR2 technology is treated with seed-applied insecticide.*

YIELDGARD® CORN BORER

YieldGard Corn Borer corn hybrids contain an insecticidal protein from *B.t.* that protects corn plants from European corn borer, southwestern corn borer, sugarcane borer and southern cornstalk borer resulting in full yield potential.

YIELDGARD PLUS

YieldGard Plus corn technology combines YieldGard Corn Borer and YieldGard Rootworm technology into a single plan.

YIELDGARD ROOTWORM

YieldGard Rootworm corn hybrids contain an insecticidal protein from *B.t.* that protects corn roots from larval feeding by western, northern and Mexican corn rootworm.

YIELDGARD® CORN BORER WITH ROUNDUP READY® CORN 2

YieldGard Corn Borer with Roundup Ready Corn 2 offers farmers all the benefits of both traits combined in one crop. These hybrids exhibit the same insect protection qualities as YieldGard Corn Borer and, like Roundup Ready Corn 2, are tolerant to over-the-top applications of Roundup® agricultural herbicides.

YIELDGARD PLUS WITH ROUNDUP READY CORN 2

YieldGard Plus with Roundup Ready Corn 2 offers farmers all the benefits of all three traits combined in one crop. These hybrids exhibit the same insect protection qualities of YieldGard Corn Borer and YieldGard Rootworm and, like Roundup Ready Corn 2, are tolerant to over-the-top applications of Roundup® agricultural herbicides. Seed containing YieldGard Plus technology is treated with seed-applied insecticide.*

YIELDGARD ROOTWORM WITH ROUNDUP READY CORN 2

YieldGard Rootworm with Roundup Ready Corn 2 offers farmers all the same insect protection qualities as YieldGard Rootworm and, like Roundup Ready Corn 2, is tolerant to over-the-top applications of Roundup agricultural herbicides.

*A seed-applied insecticide can protect seed, roots and seedlings from insects such as black cutworm, wireworm, white grubs, seed corn maggots, chinch bug and early flea beetles.

ROUNDUP READY® Technology in Corn

WEED CONTROL RECOMMENDATIONS

Roundup Ready® Corn 2 (RR2) and corn with Roundup Ready® 2 Technology are equivalent in their tolerance to Roundup agricultural herbicides. Products with Roundup Ready Technology contain in-plant tolerance to Roundup agricultural herbicides.

The Roundup Ready® Technology system's flexibility, broad-spectrum weed control and proven crop safety offer farmers weed control programs that allow them to use the system in the way that provides the greatest benefit. Farmers can select the program that best fits the way they farm. Options include the use of a residual herbicide with a Roundup® agricultural herbicide, tank-mixing other herbicides with Roundup agricultural herbicides where appropriate and a total postemergence program.

AGRONOMIC PRINCIPLES

Corn yield is very sensitive to early-season weed competition. Weed control systems must provide farmers the opportunity to control weeds before they become competitive. The Roundup Ready Technology system provides a mechanism to control weeds at planting and once they emerge. Farmers are provided excellent crop safety and full yield potential, with applications made from planting through 48" of corn height. Drop nozzles must be used between 30" and 48" of corn height. Failure to control weeds with the right rate, at the right time and with the right product, can lead to increased weed competition, weed escapes and the potential for decreased yields. Use other approved herbicide products with Roundup agricultural herbicides if appropriate for the weed spectrum.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
For use where residual herbicides are typically used for early-season weed control: **Residual Herbicide Plus Roundup WeatherMAX®**	Use the proper Roundup Ready RATE™ of Bullet®, Degree®, Degree Xtra®, Harness®, Harness Xtra, Harness Xtra 5.6L, Micro-Tech™, or Lariat® (no post) as defined in the table below and the individual product labels, either pre or postemergence to the crop.** Follow with Roundup WeatherMAX at 16 to 22 oz/A post sequentially after preemergence application or tank-mixed in-crop with the residual. Applications should be made before weeds exceed 4" in height. **Roundup Ready RATEs***** Harness 1.5 Pints Degree 3.0 Pints Harness Xtra 1.2 Quarts Harness Xtra 5.6L 1.5 Quarts Degree Xtra 2.0 Quarts Micro-Tech 2.0 Quarts Lariat 2.0 Quarts Bullet 2.0 Quarts	Use full labeled rate of residual when application is 14 days or more prior to planting or when tough grasses are present, e.g., barnyardgrass, shattercane, seedling johnsongrass, sandbur. Use a minimum of 2.5 pt/A of Harness on woolly cupgrass and wild proso millet. Products containing atrazine will provide improved control of cocklebur, giant ragweed, *Palmer Amaranth* and morningglory. Tank-mix products such as 2,4-D, dicamba or Status® herbicide with Roundup WeatherMAX for control of glyphosate-resistant marestail (horseweed), *Palmer Amaranth* and other difficult-to-control weeds. Use 22 to 32 oz/A of Roundup WeatherMAX* when morningglory or perennial weeds are present or when broadleaf weeds are 4" in height or taller.
For use where total postemergence programs are effective and sustainable: **Roundup WeatherMAX Sequential**	Apply Roundup WeatherMAX at 16 to 22 oz/A before weeds exceed 4" in height and follow with a second application at 16 to 22 oz/A for an additional flush of weeds before they exceed 4" in height.	Use 22 to 32 oz/A of Roundup WeatherMAX when morningglory or perennial weeds are present. Tank-mix products such as 2,4-D, dicamba or Status herbicide with Roundup WeatherMAX for control of glyphosate-resistant marestail (horseweed), *Palmer Amaranth* and other difficult-to-control weeds.
Maximum Use Rates For Roundup WeatherMAX	**Products with Roundup Ready 2 Technology In-crop:** • 32 oz/A per single application • Total: 64 oz/A from emergence through 48" height of corn, drop nozzles must be used from 30" to 48" corn.	**Products with Roundup Ready 2 Technology Total Season:** The combined total of preplant, in-crop and preharvest applications of Roundup WeatherMAX can not exceed 5.3 qt/A. The combined total of in-crop and preharvest applications can not exceed 66 oz/A.

*If using another Roundup agricultural herbicide, you must refer to the label booklet or Roundup Ready Corn 2 Technology supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX®, application rates are the same as for Roundup WeatherMAX. If using another residual herbicide, follow the labeled use rate instructions applicable to Roundup Ready Corn 2. Follow all pesticide label requirements.

**Atrazine may also be used as a residual herbicide in the Roundup Ready Corn 2 System.

***You may apply up to the full residual herbicide labeled rate for corn.

WEED RESISTANCE MANAGEMENT FOR CORN WITH ROUNDUP READY TECHNOLOGY

Follow all pesticide label requirements and the guidelines below to minimize the risk of developing glyphosate-resistant weed populations in a Roundup Ready Technology system.

- Start clean with a burndown herbicide or tillage. Early-season weed control is critical to yield.
- Apply pre-emergence residual herbicides such as Harness Xtra, Degree Xtra or other residual herbicides at the recommended rate.
- Or apply a pre-emergence residual herbicide at the recommended rate tank-mixed with Roundup WeatherMAX® at a minimum of 22 oz/A in-crop before weeds exceed 4" in height.
- Follow with a postemergence in-crop application of Roundup WeatherMAX at a minimum of 22 oz/A for additional weed flushes before they exceed 4" in height.
- Roundup WeatherMAX may be tank-mixed with other herbicides for postemergence weed control.
- Report repeated non-performance to Monsanto or your local retailer.

RECOMMENDATIONS FOR MANAGING GLYPHOSATE-RESISTANT WEEDS IN PRODUCTS WITH ROUNDUP READY TECHNOLOGY

WEEDS	INSTRUCTIONS AND USE RATES*
Glyphosate-Resistant Marestail (Horseweed)	Start clean with a burndown program or tillage. -Tank-mix Roundup agricultural herbicides with 2,4-D, or dicamba, according to the label directions. In-crop, tank-mix 22 ounces per acre of Roundup WeatherMAX with Clarity® (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 lb active ingredient per acre) from corn emergence to the 5-leaf stage of corn growth (approximately 8" tall). Or tank-mix 22 ounces per acre of Roundup WeatherMAX with 5 ounces per acre of Status® herbicide when the corn is 4" to 36" tall (V2 to V10). Marestail should not exceed 6" in height at the time of in-crop application.
Glyphosate-Resistant *Amaranthus* Species **- *Palmer Amaranth*** **- Waterhemp**	Start clean with a burndown program or tillage. Use a residual herbicide such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or other residual herbicide either preemergence or in-crop for control of *Amaranthus* species. In-crop, tank-mix Roundup WeatherMAX with other herbicides such as 2,4-D, dicamba (Clarity or Banvel®) or Status herbicide to control emerged weeds. Applications of Status herbicide should be made when the corn is between 4" and 36" tall (V2 to V10). Follow all label directions. *Amaranthus* species should not exceed 3" in height at the time of in-crop application.
Glyphosate-Resistant *Ambrosia* Species **- Giant Ragweed** **- Common Ragweed**	Start clean with a burndown program or tillage. Use a residual herbicide such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or other residual herbicide either preemergence or in-crop for control of *Ambrosia* species. In-crop, tank-mix Roundup WeatherMAX with other herbicides such as 2,4-D, dicamba (Clarity or Banvel) or Status herbicide to control emerged weeds. Applications of Status herbicide should be made when the corn is between 4" and 36" tall (V2 to V10). Follow all label directions. *Ambrosia* species should not exceed 3" in height at the time of in-crop application.
Glyphosate-Resistant Johnsongrass	Start clean with a burndown program or tillage. Use a residual herbicide such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or other residual herbicide containing atrazine preemergence to reduce the competition from seedling johnsongrass prior to the emergence of corn. In-crop, tank-mix Roundup WeatherMAX with a herbicide such as Accent®, Equip™ or Option® for control of emerged weeds including seedling and rhizome johnsongrass. Follow all label directions of tank-mix partners, especially those related to weed size.

In certain areas, Italian ryegrass is known to be resistant to glyphosate. For control recommendations, refer to **www.weedresistancemanagement.com** or call 1-800-768-6387. When approved, supplemental labeling for specific herbicide products can also be viewed on **www.cdms.net** or **www.greenbook.net.**

*Follow all pesticide label requirements.

Genuity™ Bollgard II® and Bollgard® Cotton Descriptions

GENUITY™ BOLLGARD II® COTTON

Genuity™ Bollgard II® cotton contains two distinct insecticidal proteins from *Bacillus thuringiensis (B.t.)* that increase the efficacy and spectrum of control and reduce the chance that resistance will develop to the *B.t.* insecticidal proteins, relative to Bollgard® cotton. Genuity™ Bollgard II® cotton normally provides excellent, season-long control of tobacco budworm, pink bollworm and cotton bollworm. Genuity™ Bollgard II® cotton provides good protection against fall armyworm, beet armyworm, cabbage and soybean loopers and other secondary leaf- or fruit-feeding caterpillar pests of cotton. Applications of insecticides to control these insects are substantially reduced with Genuity™ Bollgard II® cotton.

BOLLGARD® COTTON

Bollgard cotton contains a single insecticidal protein from *B.t.* that provides good control against three major lepidopteran insect pests of cotton. Specifically, Bollgard cotton provides excellent, season-long control of tobacco budworm and pink bollworm, and suppression of cotton bollworm. When the above-mentioned insect larvae feed on Bollgard cotton plants, the *B.t.* protein protects the plants from damage by reducing larval survival. Under high infestation, application of insecticides may be necessary to protect Bollgard cotton.

BOLLGARD PHASE OUT

The U.S. Environmental Protection Agency has mandated the following terms and conditions:*

- Bollgard® cotton may be sold through September 30, 2009. After that date, all sales of Bollgard cotton are prohibited.
- All Bollgard cotton seed must be planted by midnight of July 1, 2010 (the expiration date of the Bollgard cotton registration). After July 1, 2010, planting of Bollgard cotton seed is prohibited. Any Bollgard cotton seed not planted on or before July 1, 2010, must be returned to either the retailer or to Monsanto. No refunds are to be issued on Bollgard cotton seeds bought for planting in 2010 and returned by growers.
- An adequate amount of refuge seed must be purchased for planting an appropriate refuge for Bollgard cotton. Purchase of refuge seed with the Bollgard cotton seed is mandatory, and such seed must be purchased by growers in advance of their receipt of Bollgard cotton seed. Any seed purchased for use as a refuge is non-refundable, unless the proportional amount of Bollgard cotton seed that the refuge seed would have supported is returned at the same time.
- Any order for replacement or additional Bollgard cotton seed for the 2010 planting season, that does not conform to the requirements stated above must be filled with Genuity™ Bollgard II® cotton seed (or other products with current registrations).
- On-farm IRM assessments will be conducted during the planting season.
- In 2010, Bollgard cotton may only be planted in: Alabama, Arkansas, Florida (North of Florida Route 60), Georgia. Kentucky, Louisiana, Maryland, Missouri, Mississippi, North Carolina, South Carolina, Tennessee, Texas (excluding the ten prohibited Texas panhandle counties of: Dallam, Sherman, Hansford, Ochiltree, Lipscomb, Hartley, Moore, Hutchinson, Roberts, and Carson) and Virginia.

*It is a violation of federal law to sell or distribute an unregistered pesticide.

NOTE: Sale or commercial planting of Bollgard®cotton is prohibited in certain states, including: Arizona, California, Colorado, Kansas, New Mexico and Oklahoma.

Sale or planting of Bollgard is prohibited in the Texas counties of: Carson, Dallam, Hansford, Hartley, Hutchison, Lipscomb, Moore, Ochiltree, Roberts, and Sherman.

Sale or commercial planting of both Genuity™ Bollgard II® and Bollgard is prohibited in Hawaii, Puerto Rico, the U.S. Virgin Islands, and in Florida south of Route 60 (near Tampa).

The *B.t. delta endotoxin* protein expressed in this cotton targets certain cotton insect pests. Routine applications of insecticides to control certain insects are usually unnecessary when cotton containing the *B.t. delta endotoxin* protein is planted. However, if insecticide applications are necessary to control certain cotton insect pests, follow all label requirements.

Genuity™ Bollgard II® and Bollgard® Cotton

INSECT RESISTANCE MANAGEMENT (IRM)

Lepidopteran cotton pests have demonstrated the ability to develop resistance to many chemical insecticides. As a preemptive measure, Genuity™ Bollgard II® and Bollgard® cotton must be managed in ways that will retard insect resistance development. These practices are designed to ensure that some lepidopteran populations are not exposed to the *B.t.* proteins so they can maintain susceptibility in select populations. In order to achieve this, refuge cotton that does not contain *B.t.* proteins must be planted.

GENUITY™ BOLLGARD II - DUAL EFFECTIVE DOSE

Resistance management is critical to the long-term viability of our technology and the benefits realized by our farmer customers. 2010 is a transition year for Monsanto *B.t.* cotton products as we shift all U.S. cotton acres toward the two-gene insect control product, Genuity™ Bollgard II® cotton. The move to multiple-gene products, including Genuity™ Bollgard II®, offers dual effective modes of action against target insect pests, increasing the longevity of the technology.

INTEGRATED PEST MANAGEMENT (IPM)

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information is used to manage pests in a manner that is least harmful to people, property and the environment.

Prevention

Using the best agronomic management practices in conjunction with the appropriate cotton varieties will yield the greatest benefits.

Use varieties, seeding rates and planting technologies appropriate for each specific geographical area. As much as possible, manage the crop to avoid plant stress.

- Employ appropriate scouting techniques and treatment decisions to preserve beneficial insects that can provide additional insect pest control.
- Manage for appropriate maturity and harvest schedules. destroy stalks immediately after harvest to avoid regrowth and minimize selection for resistance in late-season infestations.
- Use soil management practices that encourage destruction of over-wintering pupae.

Monitor and Identify

Fields should be carefully monitored for all pests, including cotton bollworms, to determine the need for remedial insecticide treatments. For target pests, scouting techniques and supplemental treatment decisions should take into account the fact that larvae must hatch and feed before they can be affected by the *B.t.* protein(s) in either Genuity™ Bollgard II® or Bollgard cotton. Fields should be scouted regularly, following periods of heavy or sustained egg lay, especially during bloom, to determine if significant larval survival has occurred. Scouting should include a modified whole-plant inspection, including terminals, squares, blooms, bloom tags and small bolls. Larvae larger than 1/4 inch (3- to 4-days old) are generally recognized as survivors that may not be controlled by Genuity™ Bollgard II® or Bollgard cotton.

Read the IRM/Grower Guide prior to planting for information on planting and Insect Resistance Management. If you do not have a copy of this Guide, you may download it at **www.monsanto.com**, or **call 1-800-768-6387** to request a copy by mail.

Control

Monsanto recommends the use of appropriate remedial insecticide treatments to ensure desired levels of control if any cotton insect pest reaches locally established thresholds in Genuity™ Bollgard II® or Bollgard cotton.

Although Genuity™ Bollgard II® and Bollgard cotton will sustain less damage from some of the most troublesome lepidopteran pests, they will not provide protection against non-lepidopteran species. These insects should be monitored and treated with insecticides when necessary, using recommended thresholds. Whenever possible, select insecticides that are least harmful to beneficial insects.

NOTE: In 2010, sale or commercial planting of Bollgard® cotton is prohibited in the following states: Arizona, California, Colorado, Kansas, New Mexico and Oklahoma.

In 2010, sale or planting of Bollgard® is prohibited in the Texas counties of: Carson, Dallam, Hansford, Hartley, Hutchison, Lipscomb, Moore, Ochiltree, Roberts, and Sherman.

In 2010, sale or commercial planting of both Genuity™ Bollgard II® and Bollgard® is prohibited in Hawaii, Puerto Rico, and the U.S. Virgin Islands, or in Florida south of Route 60 (near Tampa).

Roundup Ready® Cotton, Genuity™ Bollgard II® with Roundup Ready® Cotton and Bollgard with Roundup Ready Cotton

ROUNDUP READY COTTON

Roundup Ready® cotton varieties contain in-plant tolerance to Roundup® agricultural herbicides, enabling farmers to make in-crop applications of Roundup WeatherMAX® or Roundup PowerMAX® according to label requirements.

GENUITY™ BOLLGARD II WITH ROUNDUP READY COTTON AND BOLLGARD WITH ROUNDUP READY COTTON

Genuity™ Bollgard II® with Roundup Ready® cotton and Bollgard with Roundup Ready varieties offer farmers the benefits of both insect protection and glyphosate tolerance combined in one crop. These varieties exhibit the same insect protection qualities as Genuity™ Bollgard II® and Bollgard cotton and enable farmers to make in-crop applications of Roundup WeatherMAX or Roundup PowerMAX according to label requirements.

MARKET OPTIONS

Gin by-products of cotton containing Monsanto's biotech traits, including cottonseed for feed uses, are fully approved for export to Canada, Japan, Mexico and South Korea. Cottonseed containing Monsanto traits may not be exported for the purpose of planting without a license from Monsanto.

It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted.

RECOMMENDED MANAGEMENT PRACTICES

Managing Roundup Ready cotton, Bollgard with Roundup Ready cotton and Genuity™ Bollgard II® with Roundup Ready® cotton requires that a farmer follow the recommended management practices associated with cotton containing each individual trait. Farmers of Bollgard with Roundup Ready cotton and Genuity™ Bollgard II® with Roundup Ready® cotton varieties must follow the same guidelines for establishing required refuge options, practicing IRM and managing target and non-target pests as described for Bollgard and Genuity™ Bollgard II® cotton in the IRM/Grower Guide.

APPLICATION OF ROUNDUP WEATHERMAX® AND ROUNDUP POWERMAX®

Roundup Ready cotton is genetically improved to provide tolerance to glyphosate, the active ingredient in Roundup agricultural herbicides. Roundup Ready cotton can receive over-the-top applications of Roundup agricultural herbicides only through the four-leaf stage. With the introduction of Genuity™ Roundup Ready® Flex cotton, there is the potential for both Roundup Ready cotton and Genuity™ Roundup Ready® Flex cotton to be used on a farmer's farm. This creates concern for the crop safety of Roundup Ready cotton. Monsanto recommends that farmers:

- Maintain accurate records of which technologies have been planted and where they have been planted.
- Communicate the field plan with other members of their work force to ensure proper applications for each technology.
- Clearly mark fields to indicate which technology has been planted.

TRACK IT. COUNT IT.
More than Four, Post-Direct.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow all pesticide label requirements and these guidelines to minimize the risk of developing glyphosate-resistant weed populations in a Roundup Ready cotton system:

- Scout fields before and after each burndown and in-crop application.
- Start clean with a burndown herbicide program or tillage.
- Use the right herbicide product at the right rate and right time.
- Add soil residual herbicide(s) and cultural practices as part of a Roundup Ready weed control program.
- In-crop, apply Roundup WeatherMAX at a minimum of 22 oz/A when weeds are less than 6" in height.
- Tank-mix other approved herbicides with Roundup WeatherMAX if necessary for postemergence weed control.
- Clean equipment before moving from field to field to minimize the spread of weed seed (as well as nematodes, insects and other cotton pests).
- Should repeated non-performance occur, report to Monsanto or your local retailer.

WEED CONTROL RECOMMENDATIONS

Weed control in cotton is essential to help maximize both fiber yield and quality potential. Cotton is very sensitive to early-season weed competition, which can result in unacceptable stands and/or reduced yield potential. The Roundup Ready® cotton system provides farmers with the right tools to control weeds before they become competitive.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Preplant Burndown	Always start clean by planting into a weed-free field using either tillage or a burndown application. In no-till and reduced-till systems, apply a preplant burndown application of Roundup WeatherMAX®** at 22 to 44 oz/A in a tank-mix with dicamba or 2,4-D. See the dicamba and 2,4-D product label for rates and time intervals required between application and cotton planting. State restrictions may apply.	Early-season weed competition can result in unacceptable stands and/or reduced yield potential. This tank-mix is recommended for control and management of glyphosate-resistant marestail (*Conyza sp.*) or other tough-to-control weeds. Burndown application should be made far enough in advance of planting to control existing weeds.
Residual Herbicides	Apply residual herbicide(s) as part of a Roundup Ready cotton weed control program. Use the recommended label rate and timing of the residual herbicide applied. Refer to individual product labels for list of residual herbicides that may be used.	The residual herbicide(s) may be applied as either a preemergence (including preplant incorporated), postemergence, and/or layby application as allowed on the label of the specific product being used.
Over-The-Top through Fourth Leaf	Apply Roundup WeatherMAX over the top from crop emergence through the fourth true-leaf (node) stage (until the fifth true leaf reaches the size of a quarter). Two applications can be made during this period at a maximum rate of 22 oz/A per application. Refer to the "Annual Weeds Rate Table" in the Roundup WeatherMAX label for rate recommendations for specific annual weeds.	In-crop over-the-top applications must be at least 10 days apart and the cotton must have at least two nodes of incremental growth between applications. Care should be taken to record growth stage at first application. In situations where the potential for weed infestations is high (including perennial weeds), make the first application early enough to allow a second application before cotton exceeds the fourth true-leaf stage. Over-the-top applications after the fourth true-leaf stage can result in boll loss, delayed maturity, and/or yield loss.
Selective Equipment	After the fourth true-leaf stage through layby, Roundup WeatherMAX may be applied using precision post-directed or hooded sprayers which direct the spray to the base of the cotton plant. Two post-directed applications can be made during this period at a maximum rate of 22 oz/A per application.	Place nozzles in a low horizontal position to permit spray pattern to overlap in the row while contact of spray solution with cotton leaves should be avoided to the maximum extent possible. Excessive foliar contact can result in boll loss, delayed maturity, and/or yield loss. There must be two nodes of growth and at least 10 days between applications.
Preharvest Over-The-Top Applications	Before harvest and after cotton reaches 20% boll-crack, if needed, apply up to 44 oz/A of Roundup WeatherMAX. This treatment is effective in controlling late-season perennial weeds and can improve harvest efficiency.	Applications must be made at least 7 days prior to harvest. Roundup agricultural herbicides are not effective for preharvest cotton regrowth in Roundup Ready cotton. Do not apply Roundup agricultural herbicides preharvest to crops grown for seed under contract at an authorized cotton seed company.

Roundup Ready cotton has excellent vegetative tolerance to Roundup WeatherMAX allowing early-season over-the-top applications. Incomplete reproductive tolerance requires that applications after the 4-leaf (node) stage be properly post-directed.

ATTENTION: Use of Roundup agricultural herbicides in accordance with label directions is expected to result in normal growth of Roundup Ready cotton, however, various environmental conditions, agronomic practices, and other factors make it impossible to eliminate all risks associated with the product, even when applications are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity, and/or yield loss.

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or Roundup Ready cotton supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX®, application rates are the same as for Roundup WeatherMAX.

RECOMMENDATIONS FOR MANAGING GLYPHOSATE-RESISTANT WEEDS

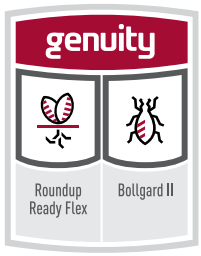
WEEDS	INSTRUCTIONS AND USE RATES*
Glyphosate-Resistant Marestail (Horseweed)	Start clean with a burndown herbicide program or tillage. -Tank-mix Roundup agricultural herbicides with dicamba or 2,4-D (consult label for plant back timing). If you have dense stands of marestail, use a preplant residual herbicide at the recommended rate and timing, such as diuron (Direx®) or flumioxazin (Valor®). Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. In-crop, if applying post-directed to glyphosate-resistant marestail, Roundup WeatherMAX can be tank-mixed with other herbicides, such as diuron or MSMA. Marestail should be less than 6" in height at the time of in-crop application.
Glyphosate-Resistant *Amaranthus* Species **- *Palmer Amaranth*** **- Waterhemp**	Start clean with a burndown herbicide program or tillage. Apply a preemergence residual herbicide such as pendimethalin (Prowl®) plus fluometuron or fomesafen (Reflex®) or flumioxazin (Valor) for control of *Amaranthus* species. In-crop, tank-mix Roundup WeatherMAX at 22 oz/A with metolachlor or other labeled chloracetamide herbicide before *Amaranthus* species emerges. Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. A post-directed application of Roundup WeatherMAX tank-mixed with MSMA and a residual such as diuron (Direx) or flumioxazin (Valor) should be made to control *Amaranthus* species 3" or smaller in height and prevent additional flushes.
Glyphosate-Resistant *Ambrosia* Species **- Giant Ragweed** **- Common Ragweed**	Start clean with a burndown herbicide program or tillage. Apply a preemergence residual herbicide such as pendimethalin (Prowl) plus fluometuron or fomesafen (Reflex)for control of *Ambrosia* species. In-crop, tank-mix Roundup WeatherMAX at 22 oz/A with metolachlor before *Ambrosia* species emerges. Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. A post-directed application of Roundup WeatherMAX tank-mixed with MSMA and a residual such as diuron (Direx) or flumioxazin (Valor) should be made to control *Ambrosia* species 3" or smaller in height and prevent additional flushes.
Glyphosate-Resistant Johnsongrass	Start clean with a burndown herbicide or tillage. Preplant incorporate a residual herbicide such as pendimethalin or trifluralin for control or suppression of seedling johnsongrass. Apply Roundup WeatherMAX in a tank-mix with herbicides such as SelectMAX®, Assure® II or Poast Plus for the control of emerged weeds including seedling and rhizome johnsongrass. Follow all label directions of tank-mix partners, especially those related to weed size.
In certain areas, Italian ryegrass is known to be resistant to glyphosate. For control recommendations, refer to **www.weedresistancemanagement.com** or call 1-800-768-6387. When approved, supplemental labeling for specific herbicide products can also be viewed on **www.cdms.net** or **www.greenbook.net.**	

*Follow all pesticide label requirements.

Genuity™ Roundup Ready® Flex Cotton and Genuity™ Bollgard II® with Roundup Ready® Flex Cotton

GENUITY™ ROUNDUP READY® FLEX COTTON

Genuity™ Roundup Ready® Flex cotton varieties possess improved reproductive tolerance to Roundup® agricultural herbicides. This technology gives farmers the opportunity to make over-the-top broadcast applications of labeled Roundup agricultural herbicides from crop emergence up to seven (7) days prior to harvest.



GENUITY™ BOLLGARD II® WITH ROUNDUP READY® FLEX COTTON

Genuity™ Bollgard II® with Roundup Ready® Flex varieties offer farmers the benefits of both insect protection and glyphosate tolerance combined in one crop. These varieties exhibit the same insect protection qualities as Genuity™ Bollgard II® and are tolerant to over-the-top applications of Roundup WeatherMAX® and Roundup PowerMAX®.

MARKET OPTIONS

Genuity™ Roundup Ready® Flex cotton and Genuity™ Bollgard II® with Roundup Ready Flex cotton have regulatory clearance in the United States, but do not have import approval in all export markets. Processed fractions from these products, including linters, oil, meal, cottonseed and gin trash, must not be exported without all necessary approvals in the importing country. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted.

RECOMMENDED MANAGEMENT PRACTICES

Managing Genuity™ Roundup Ready® Flex cotton and Genuity™ Bollgard II® with Roundup Ready® Flex cotton requires a farmer to follow the recommended management practices associated with cotton containing each individual trait. Farmers of Genuity™ Bollgard II® with Roundup Ready® Flex cotton must follow the same guidelines for establishing required refuge options, practicing IRM and managing target and non-target pests as described for Genuity™ Bollgard II® cotton in the IRM/Grower Guide.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow all label requirements and the guidelines below to minimize the risk of developing weed resistance in a Genuity™ Roundup Ready® Flex cotton system:

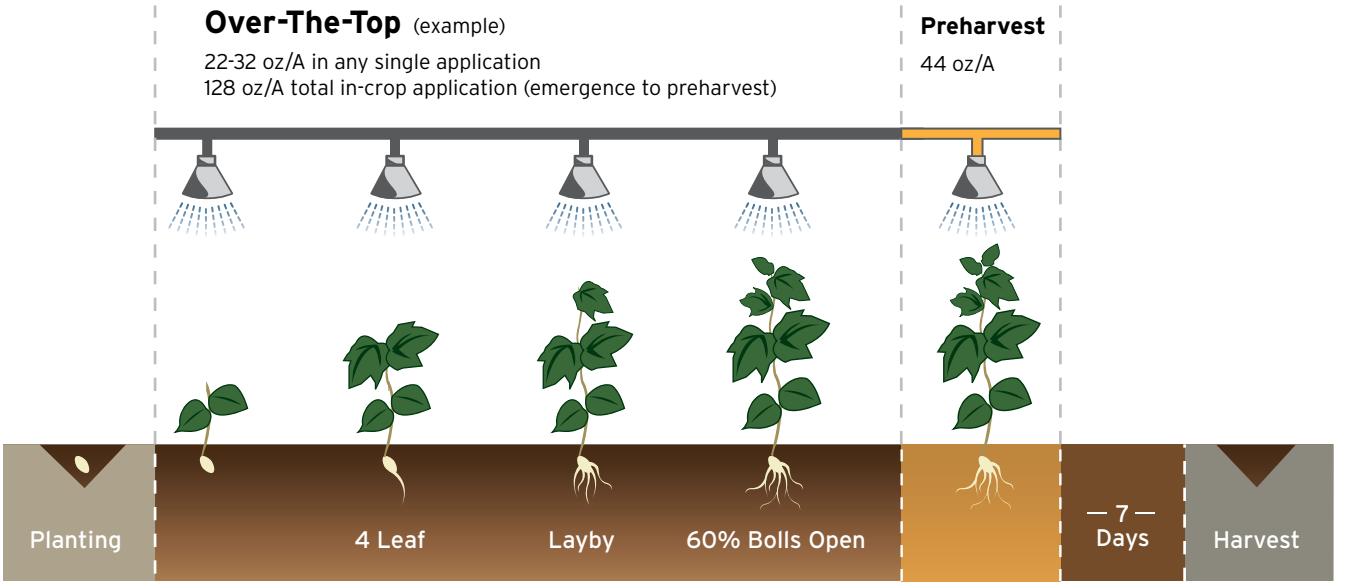
- Scout fields before and after each burndown and in-crop application.
- Start clean with a burndown herbicide program or tillage.
- Use the right herbicide product at the right rate and right time.
- Add soil residual herbicide(s) and cultural practices as part of a Genuity™ Roundup Ready® Flex cotton weed control program.
- In-crop, apply Roundup WeatherMAX at a minimum of 22 oz/A when weeds are 3" to 6" in height.
- Tank-mix other approved herbicides with Roundup WeatherMAX if necessary for postemergence weed control.
- Should repeated non-performance occur, report to Monsanto or your local retailer.
- Clean equipment before moving from field to field to minimize the spread of weed seed (as well as nematodes, insects and other cotton pests).

APPLICATION OF ROUNDUP WEATHERMAX® AND ROUNDUP POWERMAX®

- May be applied over-the-top and/or in-crop, from crop emergence up to 7 days prior to harvest.
- A maximum rate of 32 oz/A per application may be applied using ground application equipment while the maximum is 22 oz/A per application by air.
- There are no growth or timing restrictions for sequential applications.
- Four (4) quarts/A is the total in-crop volume allowed from emergence to 60% open bolls.
- A maximum total volume of 44 oz/A may be applied between layby and 60% open bolls.
- Post-directed equipment may be used to achieve more thorough spray coverage of weeds or if herbicides not labeled for over-the-top application will be tank-mixed with Roundup WeatherMAX or Roundup PowerMAX.

PREHARVEST APPLICATIONS

- Up to 44 oz/A may be applied after cotton reaches 60% open bolls and before harvest, if needed.
- Applications must be made at least 7 days prior to harvest.



CROP SAFETY OF OVER-THE-TOP GLYPHOSATE APPLICATIONS

Monsanto has determined that a combination of components in glyphosate formulations have the potential to cause leaf injury when applied during later stages of crop growth. Roundup WeatherMAX and Roundup PowerMAX are the only Roundup agricultural herbicides labeled and approved for new labeled uses over the top of Genuity™ Roundup Ready® Flex cotton.

Leaf injury may occur if the products are not used according to the product label, used at higher than recommended rates or if overlap of spray occurs in the field. **Farmers must confirm that any glyphosate formulation to be used on Genuity™ Roundup Ready® Flex cotton has been labeled for use on Genuity™ Roundup Ready® Flex cotton and should confirm that it has been tested to demonstrate crop safety.**

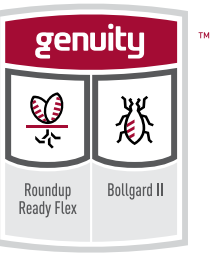
WEED CONTROL RECOMMENDATIONS

Weed control in cotton is essential to maximize both fiber yield and quality potential. Cotton is very sensitive to early-season weed competition, which can result in unacceptable stands and/or reduced yield potential. The Genuity™ Roundup Ready® Flex cotton system, with improved reproductive tolerance to Roundup® agricultural herbicides, provides farmers with the right tools to control weeds.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Preplant Burndown	Always start clean by planting into a weed-free field using either tillage or a burndown application. In no-till and reduced-till systems, apply a preplant burndown application of Roundup WeatherMAX®** at 22 to 44 oz/A in a tank-mix with dicamba or 2,4-D. See the dicamba and 2,4-D product label for rates and time intervals required between application and cotton planting. State restrictions may apply.	Early-season weed competition can result in unacceptable stands and/or reduced yield potential. This tank-mix is recommended for control and management of glyphosate-resistant marestail (*Conyza sp.*) or other tough-to-control weeds. Burndown application should be made far enough in advance of planting to control existing weeds.
Residual Herbicides	Apply approved residual herbicide(s) as part of a Genuity™ Roundup Ready® Flex cotton weed control program. Use the recommended label rate and timing of the residual herbicide applied. Refer to individual product labels for list of residual herbicides that may be used.	The residual herbicide(s) may be applied as either a preemergence (including preplant incorporated), postemergence, and/or layby application as allowed on the label of the specific product being used.
In-Crop Weed Control	Target the first application of Roundup WeatherMAX on 1-2 leaf cotton when weeds are small. Apply a minimum of 22 oz/A of Roundup WeatherMAX in-crop. The need for sequential applications of Roundup WeatherMAX will depend upon the occurrence of subsequent weed flushes. Refer to the "Annual Weeds Rate Table" in the Roundup WeatherMAX label booklet for rate recommendations for specific annual weeds.	Early-season weed competition can reduce yield potential in cotton. Select timing of application based on the most difficult to control weed species in your field. Post-direct or hooded sprayers can be used to achieve more thorough spray coverage on weeds.
Preharvest Over-The-Top Applications	Before harvest and after cotton reaches 60% open bolls, if needed, apply up to 44 oz/A of Roundup WeatherMAX. This treatment is effective in controlling late-season perennial weeds.	Applications must be made at least 7 days prior to harvest. Roundup agricultural herbicides are not effective for preharvest cotton regrowth in Genuity™ Roundup Ready® Flex cotton.

*Follow all pesticide label requirements.

**The maximum volume of Roundup WeatherMAX and Roundup PowerMAX® that may be used in a single season is 5.3 quarts per acre.



RECOMMENDATIONS FOR MANAGING GLYPHOSATE-RESISTANT WEEDS

WEEDS	INSTRUCTIONS AND USE RATES*
Glyphosate-Resistant Marestail (Horseweed)	Start clean with a burndown herbicide program or tillage. -Tank-mix Roundup agricultural herbicides with dicamba or 2,4-D (consult label for plant back timing). If you have dense stands of marestail, use a preplant residual herbicide at the recommended rate and timing, such as diuron (Direx®) or flumioxazin (Valor®). Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. In-crop, if applying post-directed to glyphosate-resistant marestail, Roundup WeatherMAX can be tank-mixed with other herbicides, such as diuron or MSMA. Marestail should not exceed 6" in height at the time of in-crop application.
Glyphosate-Resistant *Amaranthus* Species **- *Palmer Amaranth*** **- Waterhemp**	Start clean with a burndown herbicide program or tillage. Apply a preemergence residual herbicide such as pendimethalin (Prowl®) plus fluometuron or fomesafen (Reflex®) or flumioxazin (Valor) for control of *Amaranthus* species. In-crop, tank-mix Roundup WeatherMAX at 22 oz/A with metolachlor or other labeled chloracetamide herbicide before *Amaranthus* species emerges. Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. A post-directed application of Roundup WeatherMAX tank-mixed with MSMA and a residual such as diuron (Direx) or flumioxazin (Valor) should be made to control *Amaranthus* species 3" or smaller in height and prevent additional flushes.
Glyphosate-Resistant *Ambrosia* Species **- Giant Ragweed** **- Common Ragweed**	Start clean with a burndown herbicide program or tillage. Apply a preemergence residual herbicide such as pendimethalin (Prowl) plus fluometuron or fomesafen (Reflex) for control of *Ambrosia* species. In-crop, tank-mix Roundup WeatherMAX at 22 oz/A with metolachlor before *Ambrosia* species emerges. Use Roundup WeatherMAX in-crop, as needed, at a minimum of 22 oz/A to control other weeds. A post-directed application of Roundup WeatherMAX tank-mixed with MSMA and a residual such as diuron (Direx) or flumioxazin (Valor) should be made to control *Ambrosia* species 3" or smaller in height and prevent additional flushes.
Glyphosate-Resistant Johnsongrass	Start clean with a burndown herbicide or tillage. Preplant incorporate a residual herbicide such as pendimethalin or trifluralin for control or suppression of seedling johnsongrass. Apply Roundup WeatherMAX in a tank-mix with herbicides such as SelectMAX®, Assure® II or Poast Plus for the control of emerged weeds including seedling and rhizome johnsongrass. Follow all label directions of tank-mix partners, especially those related to weed size.
In certain areas, Italian ryegrass is known to be resistant to glyphosate. For control recommendations, refer to **www.weedresistancemanagement.com** or call 1-800-768-6387. When approved, supplemental labeling for specific herbicide products can also be viewed on **www.cdms.net** or **www.greenbook.net.**	

*Follow all pesticide label requirements.

Genuity™ Roundup Ready 2 Yield® and Roundup Ready® soybean varieties contain in-plant tolerance to Roundup® agricultural herbicides. This means you can spray Roundup agricultural herbicides in-crop from emergence through flowering.

Spray labeled Roundup agricultural herbicides over the top from emergence (cracking) through flowering (R2 stage soybeans) for unsurpassed weed control, proven crop safety and maximum yield potential. R2 stage soybeans end when a pod 5 millimeters (3/16") long at one of the four uppermost nodes appears on the main stem along with a fully developed leaf (R3 stage).

WEED CONTROL RECOMMENDATIONS

Starting clean with a weed-free field, and making timely post-emergence in-crop applications, is critical to obtaining excellent weed control and maximum yield potential. The Roundup Ready soybean system provides the flexibility to use the herbicide tools necessary to control weeds at planting and in-crop. Failure to control weeds with the right rate, at the right time and with the right product, can lead to increased weed competition and the potential for decreased yield.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Preplant Burndown	To start clean in no-till systems, apply a burndown application of Roundup WeatherMAX®** at 22 to 44 oz/A before planting. See the label for appropriate rates by weed species. For control and management of glyphosate-resistant marestail (*Conyza sp.*) or other difficult-to-control weeds present at burndown, apply 22 oz/A of Roundup WeatherMAX in a tank-mix with 1 to 2 pt/A 2,4-D. Make applications 7 to 30 days before planting and before marestail reaches 6" in height.	Always start with a weed-free field. In no-till and reduced-till systems, apply a Roundup WeatherMAX* burndown application to control existing weeds before planting. Adding 2,4-D in the burndown can significantly reduce broadleaf weed pressure at post-emergence timing. Read the 2,4-D product label for time intervals required between application and soybean planting.
Residual Herbicide Plus Roundup WeatherMAX	Use the recommended label rate of a soil-applied residual herbicide applied preemergence to soybeans as defined in the individual product's labeling. The residual product may be tank-mixed with Roundup WeatherMAX at burndown. Refer to individual product labels for list of residual herbicides that may be used. Follow with 22 oz/A Roundup WeatherMAX in-crop when weeds are 2" to 8" tall. Refer to the "Annual Weeds Rate Table" in the Roundup WeatherMAX label for rate recommendations for specific annual weeds. Crop rotation following Genuity™ Roundup Ready 2 Yield® and Roundup Ready soybeans is strongly encouraged. Use of a residual herbicide is encouraged especially if the cropping system is a continuous Roundup Ready system.	A residual program is encouraged when agronomic conditions favor the practice. Reducing Roundup WeatherMAX rate when tank-mixing with a residual or use of premixes utilizing a reduced rate of glyphosate (such as Extreme®) is not recommended. If the in-crop application is delayed and weeds are larger, apply a higher rate of Roundup WeatherMAX.
Roundup WeatherMAX	Apply a minimum of 22 oz/A of Roundup WeatherMAX** in-crop when weeds are 2" to 8" tall. Refer to the "Annual Weeds Rate Table" in the Roundup WeatherMAX label for rate recommendations for specific annual weeds. Choose the rate to control the most difficult-to-control weed in your field. A sequential application of this product may be required to control new flushes of weeds in the Roundup Ready soybean crop. If a sequential application is necessary, apply 16 to 22 oz/A of Roundup WeatherMAX** when weeds are 3" to 6" tall.	In-crop application of Roundup WeatherMAX provides control of labeled weeds. For best results, apply 3 to 4 weeks after planting or when weeds are less than 8" tall. If initial application is delayed and weeds are larger, apply a higher labeled rate of Roundup WeatherMAX.

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or Genuity™ Roundup Ready 2 Yield® soybean or Roundup Ready soybean supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Glyphosate-Tolerant Volunteer Corn	Tank-mix Roundup WeatherMAX® with 6 to 12 oz/A of Select Max™ and apply to 4" to 36" glyphosate-tolerant volunteer corn.	Choose your Roundup WeatherMAX rate based on the weed species and size listed in the "Annual Weeds Rate Table" of the Roundup WeatherMAX Label.
Maximum Use Rates for Roundup WeatherMAX	**In-Crop:** • 44 oz/A per single application • 44 oz/A during flowering • 64 oz/A emergence through flowering (R2 stage soybeans) **Preharvest:** • 22 oz/A application	**Total Season:** The combined total of preplant, in-crop and preharvest applications of Roundup WeatherMAX can not exceed 5.3 qt/A. The combined total of in-crop and preharvest applications can not exceed 64 oz/A.

*Follow all pesticide label requirements.

Herbicide products sold by Monsanto for use over the top of soybeans with Genuity™ Roundup Ready 2 Yield® Technology for the 2010 crop season are as follows:

- Roundup WeatherMAX
- Roundup PowerMAX

WEED CONTROL RECOMMENDATIONS

KEY WEEDS	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Weeds that Tend to Have Multiple Emergence Events	Where dense stands of weed species such as common lambsquarters, tall and common waterhemp, *Palmer Amaranth*, redroot pigweed, common ragweed, and giant ragweed are expected, the following agronomic practices are recommended: • Start clean with tillage or burndown in no-till and reduced till systems. Include 2,4-D in the burndown. • Plant soybeans in narrow rows (<20"). • Use a pre-plant residual herbicide. • Use the right rate of Roundup WeatherMAX at the right time (proper weed size).	Weeds such as lambsquarters, waterhemp, pigweed, and giant ragweed tend to emerge throughout the season. Sequential Roundup WeatherMAX applications or the addition of a soil residual herbicide may be required for control of subsequent weed flushes.
Difficult-to-Control Weeds	Black nightshade, velvetleaf, waterhemp, morningglory, lambsquarters, Florida pusley, giant ragweed, Pennsylvania smartweed, groundcherry, hemp sesbania and spurred anoda are difficult-to-control weeds. Please refer to the Roundup agricultural herbicide label for specific rates and weed sizes for control of these weeds.	These weed species require special attention be paid to Roundup WeatherMAX rate and application timing (proper weed size) to obtain excellent weed control. A sequential application may be required if a new weed flush occurs, especially in soybeans planted in wide rows (>20").
Perennial Weeds	An in-crop application of 22 to 44 oz/A of Roundup WeatherMAX** will provide suppression and/or control of nutsedge and perennial weeds like Canada thistle, field bindweed, hemp dogbane, horsenettle, johnsongrass, milkweed, quackgrass, etc.	For additional information on perennial weeds, see the "Perennial Weeds Rate Table" in the label booklet for Roundup WeatherMAX. For best control, allow perennials to achieve at least 6" or more of growth before spraying.

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or Roundup Ready Soybean or Genuity™ Roundup Ready 2 Yield® Soybean supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow all pesticide label requirements and the guidelines below to minimize the risk of developing glyphosate-resistant weed populations in a Roundup Ready Soybean System:

- Crop rotation is strongly encouraged.
- Scout fields before and after each burndown and in-crop application.

- Start clean with a burndown herbicide or tillage.
  - Tank-mix with 2,4-D to control glyphosate-resistant marestail or other tough-to-control broadleaf weeds.
- Use the recommended label rate of a soil-applied residual herbicide such as INTRRO®, Valor®, Valor XLT® or Gangster®.
- In-crop, apply Roundup WeatherMAX at a minimum of 22 oz/A before weeds exceed 8" in height.
- If an additional flush of weeds occurs, a sequential application of Roundup WeatherMAX at 22 oz/A may be needed before weeds exceed 6" in height.
- Refer to individual product labels for a list of recommended tank-mix partners.
- Clean equipment before moving from field to field to minimize the spread of weed seed.
- Report repeated non-performance to Monsanto or your local retailer.

RECOMMENDATIONS FOR MANAGING GLYPHOSATE-RESISTANT WEEDS

WEEDS	INSTRUCTIONS AND USE RATES*
Glyphosate-Resistant Marestail (Horseweed)	**Preplant:** Apply a tank-mixture of 22 oz/A Roundup WeatherMAX® with 1 pt/A 2,4-D before marestail exceeds 6" in height. See the 2,4-D product label for time intervals required between application and planting. **In-crop:** It is strongly encouraged that marestail should be controlled prior to planting using recommended preplant burndown treatments. In-crop, apply a tank-mixture of 22 oz/A Roundup WeatherMAX with 0.3 oz/A FirstRate®. This treatment should be used as a salvage treatment only for a marestail infestation that was not controlled preplant. Application should be made between full emergence of the first trifoliate leaf and 50% flowering stage of soybeans. At the time of treatment, marestail should not exceed 6" in height.
Glyphosate-Resistant *Amaranthus* Species **- *Palmer Amaranth*** **- Waterhemp**	**Preplant:** Apply a tank-mix of 22 oz/A Roundup WeatherMAX with a preemergence residual herbicide such as alachlor (INTRRO®), flumioxazin (Valor®) or another residual herbicide for preemergence control of *Amaranthus* species. 2,4-D may be added to the tank-mix to help control emerged *Amaranthus* species and other broadleaf weeds preplant only. Follow label instructions regarding application timing relative to soybean planting. **In-crop:** It is strongly encouraged that a preemergence residual product be used to control *Amaranthus* species prior to emergence. If there is emerged *Amaranthus* in-crop, apply a tank-mixture of 22 oz/A Roundup WeatherMAX with a postemergence product with activity on *Amaranthus* such as lactofen (Cobra®), fomesafen (Flexstar®) or cloransulam (FirstRate). Applications should be made on emerged *Amaranthus* that does not exceed 3" in height. Read and follow all product label instructions. It is likely that visual soybean injury will occur with these tank-mixtures.
Glyphosate-Resistant *Ambrosia* Species **- Giant Ragweed** **- Common Ragweed**	**Preplant:** Apply a tank-mix of 22 oz/A Roundup WeatherMAX with a preemergence residual herbicide such as cloransulam (FirstRate) or cloransulam + flumioxazin (Ganster®) or another residual herbicide for preemergence control of *Ambrosia* species. 2,4-D may be added to the tank-mix to help control emerged *Ambrosia* species and other broadleaf weeds preplant only. Follow label instructions regarding application timing relative to soybean planting. **In-crop:** It is strongly encouraged that a preemergence residual product be used to control *Ambrosia* species prior to emergence. If there is emerged *Ambrosia* in-crop, apply a tank-mixture of 22 oz/A Roundup WeatherMAX with a postemergence product with activity on *Ambrosia* such as lactofen (Cobra) or fomesafen (Flexstar). Applications should be made on emerged *Ambrosia* that does not exceed 3" in height. Read and follow all product label instructions. It is likely that visual soybean injury will occur with these tank-mixtures.
Glyphosate-Resistant Johnsongrass	Start clean with a burndown herbicide or tillage. Preplant incorporate a residual herbicide such as pendimethalin or trifluralin for control or suppression of seedling johnsongrass. Apply Roundup WeatherMAX in a tank-mix with herbicides such as SelectMAX®, Assure® II or Poast Plus for the control of emerged weeds including seedling and rhizome johnsongrass. Follow all label directions of tank-mix partners, especially those related to weed size.

In certain areas, Italian ryegrass is known to be resistant to glyphosate. For control recommendations, refer to **www.weedresistancemanagement.com** or call 1-800-768-6387. When approved, supplemental labeling for specific herbicide products can also be viewed on **www.cdms.net** or **www.greenbook.net.**

*Follow all pesticide label requirements.


CANOLA


ALFALFA


SUGARBEET

ATTENTION: Pursuant to a Court Order issued on May 3, 2007, Genuity™ Roundup Ready® alfalfa seed **CAN NOT be commercially sold or planted** until further administrative regulatory actions are completed. For more information, and the latest updates on Genuity™ Roundup Ready® alfalfa, go to www.roundupreadyalfalfa.com.

Genuity™ Roundup Ready® alfalfa varieties have in-plant tolerance to Roundup® agricultural herbicides, enabling farmers to apply labeled Roundup agricultural herbicides up to 5 days before cutting for unsurpassed weed control, excellent crop safety and preservation of forage quality potential.

Hay and Forage Management Practices

Genuity™ Roundup Ready® alfalfa must be managed for high quality hay/forage production, including timely cutting to promote high forage quality (i.e. before 10% bloom) and to prevent seed development. In geographies where conventional alfalfa seed production is intermingled with forage production and the agronomic conditions (climate and water/irrigation availability) are such that forage alfalfa is allowed to stand and flower late in the season, Genuity™ Roundup Ready® alfalfa must be harvested at or before 10% bloom to minimize potential pollen flow from hay to common or conventional alfalfa seed production. Farmers who are unwilling to or who can not make this commitment to stewardship should not continue to grow Genuity™ Roundup Ready® alfalfa.

Genuity™ Roundup Ready® alfalfa varieties have excellent tolerance to over-the-top applications of labeled Roundup agricultural herbicides. An in-crop weed control program using Roundup WeatherMAX® or Roundup PowerMAX® will provide excellent weed control in most situations. A residual herbicide labeled for use in alfalfa may also be applied postemergence in alfalfa. Contact a Monsanto Representative, local crop advisor or extension specialist to determine the best option for your situation.

Stand Takeout and Volunteer Management

Crop rotations can be divided into two main groups, alfalfa rotated to: 1) grass crops (e.g. corn and cereal crops); and 2) broadleaf crops. More herbicide alternatives exist for management of volunteer alfalfa in grass crops. The recommended steps for controlling volunteer Genuity™ Roundup Ready® alfalfa are:

- Diligent Stand Takeout
- Start Clean
- Plan for Success
- Timely Execution

DILIGENT STAND TAKEOUT

Use appropriate, commercially available herbicide treatments alone for reduced tillage systems or in combination with tillage to terminate the Genuity™ Roundup Ready® alfalfa stand. Refer to your regional technical bulletin for specific stand takeout recommendations. **NOTE:** Roundup® agricultural herbicides are **not** effective for terminating Genuity™ Roundup Ready® alfalfa stands.

START CLEAN

If necessary, utilize tillage and/or additional herbicide application(s) after stand takeout, and before planting of the subsequent rotational crop to manage any newly emerged or surviving alfalfa.

PLAN FOR SUCCESS

Rotate the crops with known and available mechanical or herbicidal methods for managing volunteer alfalfa, keeping in mind that Roundup agricultural herbicides will not terminate Genuity™ Roundup Ready® alfalfa stands.

- Rotations to certain broadleaf crops are not advisable if the farmer is not willing to implement recommended stand termination practices.
- In the event that no known mechanical or herbicidal methods are available to manage volunteer alfalfa in the desired rotational crop, it is suggested that a crop with established volunteer alfalfa management practices be introduced into the rotation.

TIMELY EXECUTION

Implement in-crop mechanical or herbicide treatments for managing alfalfa volunteers in a timely manner; that is, before the volunteers become too large to control or begin to compete with the rotational crop.

Planting Requirements

Genuity™ Roundup Ready® alfalfa is not permitted to be planted in any wildlife feed plots.

Stewardship

All Genuity™ Roundup Ready® alfalfa farmers shall sign the Monsanto Technology/Stewardship Agreement (MTSA) limited-use license application which provides the terms and conditions for the authorized use of the product. Due to special circumstances, alfalfa farmers in the Imperial Valley of California will also sign an Imperial Valley Use Agreement (IVUA) with specific stewardship commitments. The MTSA or IVUA must be completed before purchase or use of seed.

Both the MTSA or IVUA explicitly prohibit all forms of commercial seed harvest on the stand. Every alfalfa farmer producing seed of Genuity™ Roundup Ready® alfalfa must possess an additional, separate and distinct seed farmer contract to produce Genuity™ Roundup Ready® alfalfa seed. Genuity™ Roundup Ready® alfalfa seed may not be planted outside of the United States, or for the production of seed or sprouts.

Any product produced from a Genuity™ Roundup Ready® alfalfa crop or seed, including hay and hay products, must be labeled and may only be used, exported to, processed or sold in countries where regulatory approvals have been granted. It is a violation of national and international laws to move material containing biotech traits across boundaries into nations where import is not permitted.

Pursuant to a Court Order issued on May 3, 2007, Genuity™ Roundup Ready® alfalfa farmers must adhere to the requirements set out in the December 18, 2007 USDA Administrative Order **(http://www.aphis.usda.gov/brs/pdf/RRA_A8_final.pdf)** until the USDA completes its regulatory process.

These requirements include, but are not limited to:

- Pollinators shall not be added to Genuity™ Roundup Ready® alfalfa fields grown only for hay production.
- Farm equipment used in Genuity™ Roundup Ready® alfalfa production shall be properly cleaned after use.
- Genuity™ Roundup Ready® alfalfa shall be handled and clearly identified to minimize commingling after harvest.

For additional information visit the USDA website: **http://www.aphis.usda.gov/biotechnology/alfalfa_history.shtml**

For more information and the latest updates on Genuity™ Roundup Ready® alfalfa, go to **http://www.roundupreadyalfalfa.com**

To meet sales reporting requirements, the seed supplier is required to identify and list all Genuity™ Roundup Ready® alfalfa field locations. Therefore, all farmers MUST PROVIDE their seed supplier with the GPS coordinates of all their Genuity™ Roundup Ready® alfalfa fields.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow all pesticide label requirements and the guidelines below to minimize the risk of developing glyphosate-resistant weed populations in a Genuity™ Roundup Ready® alfalfa system:

- Scout fields before and after each herbicide application.
- Use the right herbicide product at the right rate and at the right time.
- To control flushes of weeds in established alfalfa, make applications of Roundup WeatherMAX® or Roundup PowerMAX® herbicide at 22 to 44 oz/A before weeds exceed 6" in height, up to 5 days before cutting.
- Use other approved herbicide products tank-mixed or in sequence with Roundup agricultural herbicide if appropriate for the weed spectrum present as part of a Genuity™ Roundup Ready® alfalfa weed control program.
- Report repeated non-performance to Monsanto or your local retailer.

WEED CONTROL RECOMMENDATIONS

In established stands, to preserve the quality potential of forage and hay, applications should be made after weeds have emerged but before alfalfa re-growth interferes with application spray coverage of the target weeds.

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Established Stands	After the first harvest of a newly established stand, up to 44 oz/A of Roundup WeatherMAX®** herbicide per cutting may be applied up to 5 days before each subsequent cutting. The combined total per year for all in-crop applications in established stands must not exceed 132 oz/A (4.1 qt/A) of Roundup WeatherMAX.	Applications between cuttings may be applied as a single application or in multiple applications (e.g. 2 applications of 22 oz/A). Sequential applications should be at least 7 days apart.
Weeds Controlled	For specific application rates and instructions for control of various annual and perennial weeds, refer to the Roundup WeatherMAX** herbicide label booklet. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of Roundup WeatherMAX** herbicide for complete control. For some perennial weeds, repeated applications may be required to eliminate crop competition throughout the growing season.	In addition to those weeds listed in the Roundup WeatherMAX* label booklets, this product will suppress or control the parasitic weed, dodder (*Cuscuta spp.*) in Genuity™ Roundup Ready® alfalfa. Repeat applications may be necessary for complete control. For tough-to-control weeds or weeds not controlled by Roundup® agricultural herbicides use labeled rates of other approved herbicides, alone or in tank-mixtures, with Roundup agricultural herbicides.
Maximum Use Rates	**In-Crop:** • 44 oz/A per single application. • Established Stand Total: 44 oz/A per cutting up to 5 days before harvest.	**Total Per Year:** The combined total per year for all in-crop applications in established stands must not exceed 132 oz/A (4.1 qt/A) of Roundup WeatherMAX.

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or separately published Genuity™ Roundup Ready® alfalfa supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

Genuity™ Roundup Ready® spring canola hybrids contain in-plant tolerance to Roundup agricultural herbicides, enabling farmers to apply Roundup® agricultural herbicides over the top of Genuity™ Roundup Ready® spring canola anytime from emergence through the 6-leaf stage of development.

The introduction of the Roundup Ready® trait into leading spring canola hybrids and varieties gives farmers the opportunity for unsurpassed weed control, proven crop safety and maximum profit potential. With Genuity™ Roundup Ready® spring canola, farmers have the weed management tool necessary to improve spring canola profitability, while providing a viable rotational crop to help break pest and disease cycles in cereal-growing areas.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow all pesticide label requirements and the guidelines below to minimize the risk of developing glyphosate-resistant weed populations in a Genuity™ Roundup Ready® spring canola system:

- Scout fields before and after each burndown and in-crop application.
- Start clean with a burndown herbicide or tillage.
- In-crop, apply Roundup WeatherMAX® herbicide before weeds exceed 3" in height.
- A sequential application of Roundup WeatherMAX herbicide may be needed.
- Clean equipment before moving from field to field to minimize the spread of weed seed.
- Report repeated non-performance to Monsanto or your local retailer.

WEED CONTROL RECOMMENDATIONS (SPRING-SEEDED)

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Two-Pass Program—For Annual and Perennial Weed Control	For broad-spectrum control of annual and perennial weeds, use an initial application of 11 oz/A of Roundup WeatherMAX**, in 5 to 10 gal/A water volume. No surfactant is required. Make a second application of 11 oz/A of Roundup WeatherMAX** no less than 10 days after initial application up to the 6-leaf stage (prebolting). Do not exceed 11 oz/A per application.	Spray when canola is at the 0- to 6-leaf stage of growth. To maximize yield potential, spray Genuity™ Roundup Ready® spring canola at the 1- to 3-leaf stage to eliminate competing weeds. Short-term yellowing may occur with later applications, with little effect on crop growth, maturity, or yield. Wait a minimum of 10 days between applications. Two applications of Roundup WeatherMAX will: • Control late flushes of annual weeds such as foxtail, pigweed, and wild mustard. • Provide season-long suppression of Canada thistle, quackgrass, and perennial sow thistle. • Provide better yields by eliminating competition from both annuals and hard-to-control perennials.
Single Application—For Annual Weed Control	For broad-spectrum control of annual and easy-to-control perennial weeds, make a single application of 16 oz/A of Roundup WeatherMAX.**	For best results, spray Genuity™ Roundup Ready® spring canola at the 2- to 3-leaf stage. Can be applied up to 6-leaf stage; yellowing may occur with later application with little effect on crop growth, maturity, or yield. No additional over-the-top applications can be made.
Maximum Use Rate For Roundup WeatherMAX	Two over-the-top applications: Do not exceed 11 oz/A per application. Single over-the-top applications: Do not exceed 16 oz/A. No additional application can be made.	

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or separately published Genuity™ Roundup Ready® canola supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

Genuity™ Roundup Ready® winter canola varieties have been developed for seeding in the fall and harvesting the following spring/summer.

Genuity™ Roundup Ready® winter canola varieties contain in-plant tolerance to Roundup® agricultural herbicides, enabling farmers to apply Roundup agricultural herbicides over the top of Genuity™ Roundup Ready® winter canola from crop emergence to the pre-bolting stage. The introduction of the Roundup Ready trait into winter canola varieties gives farmers the opportunity of unsurpassed weed control, crop safety and maximum yield potential. Genuity™ Roundup Ready® winter canola offers farmers an important option as a rotational crop in traditional monoculture winter wheat production areas. Introducing crop rotation is an important factor in reducing pest cycles, including weed and disease problems.

WEED RESISTANCE MANAGEMENT GUIDELINES

Follow the same guidelines as stated for spring canola.

WEED CONTROL RECOMMENDATIONS (WINTER-SEEDED)

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Sequential Applications	The two-pass program gives the greatest flexibility in controlling late emerging weeds. For broad-spectrum weed control, apply 11 to 22 oz/A of Roundup WeatherMAX** herbicide to 2-leaf or larger Genuity™ Roundup Ready® winter canola in the fall. Use 5 to 10 gallons/A water volume. Do not add surfactants. Apply a second application of Roundup WeatherMAX** at 11 to 22 oz/A at a minimum interval of 60 days after the first application and before bolting in the spring. Do not exceed 22 oz/A per application.	Spray when Genuity™ Roundup Ready® winter canola is at the 2-3 leaf stage of growth. Early applications can eliminate competing weeds and improve yield potential. Two applications of Roundup WeatherMAX will provide control of early emerging annual weeds and winter emerging weeds such as downy brome, cheat and jointed goatgrass.
Single Application	For broad-spectrum control of annual and easy-to-control perennial weeds, make a single application of 16 to 22 oz/A of Roundup WeatherMAX**, preferably in the fall.	For best results, spray Genuity™ Roundup Ready® winter canola at the 2-3 leaf stage and when weeds are small and actively growing. Applications must be made prior to bolting. Use the higher rate in the range when weed densities are high, when weeds have over wintered or when weeds become large and well established.
Maximum Use Rate for Roundup WeatherMAX	Any single over-the-top application of Roundup WeatherMAX** should not exceed 22 oz/A. No more than two over-the-top applications may be made from crop emergence to canopy closure prior to bolting in the spring.	Applications of greater than 16 fluid ounces/A prior to the 6-leaf stage may result in temporary yellowing and/or growth reduction.

*Follow all pesticide label requirements.

**If using another Roundup brand herbicide, you must refer to the label booklet or Genuity™ Roundup Ready® winter canola supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

GRAZING

It is recommended that Genuity™ Roundup Ready® winter canola not be grazed. While Genuity™ Roundup Ready® winter canola may provide farmers additional opportunity as a forage for grazing livestock, at the present time insufficient information exists to allow safe and proper grazing recommendations. Preliminary data suggest that excessive grazing can significantly reduce yield, and that careful nitrate management is critical in managing Genuity™ Roundup Ready® winter canola as a forage to limit the risk of livestock nitrate poisoning. State universities are assessing the potential and the instructions for grazing Genuity™ Roundup Ready® winter canola and they will provide grazing management guidelines when their research is completed.

Genuity™ Roundup Ready® sugarbeet varieties have in-plant tolerance to Roundup® agricultural herbicides, enabling farmers to apply labeled Roundup agricultural herbicides from planting through 30 days prior to harvest for unsurpassed weed control, excellent crop safety and preservation of yield potential.

MANAGEMENT PRACTICES

Sugarbeets are extremely sensitive to weed competition for light, nutrients and soil moisture. Research on sugarbeet weed control suggests that sugarbeets need to be kept weed-free for the first eight weeks of growth to protect yield potential. Therefore, weeds must be controlled when they are small and before they compete with Genuity™ Roundup Ready® sugarbeets (exceed crop height), that is from less than 2" up to 4" in height, to preserve sugarbeet yield potential. *More than one in-crop herbicide application will be required* to control weed infestations to protect yield potential as Roundup agricultural herbicides have no soil residual activity. Bolting sugarbeets must be rogued or topped in Genuity™ Roundup Ready® sugarbeet fields.

Genuity™ Roundup Ready® sugarbeet varieties have excellent tolerance to over-the-top applications of labeled Roundup agricultural herbicides. A postemergence weed control program using Roundup WeatherMAX® or Roundup PowerMAX® will provide excellent weed control in most situations. A residual herbicide labeled for use in sugarbeets may also be applied preemergence, preplant or postemergence in Genuity™ Roundup Ready® sugarbeets. Contact a Monsanto Representative, local crop advisor or extension specialist to determine the best option for your situation.

WEED RESISTANCE MANAGEMENT FOR GENUITY™ ROUNDUP READY® SUGARBEETS

Follow all pesticide label requirements and the guidelines below to minimize the risk of developing glyphosate-resistant weed populations in a Genuity™ Roundup Ready® sugarbeet system:

- Start clean with tillage and follow-up with a burndown herbicide, such as Roundup WeatherMAX, if needed prior to planting.
- Early-season weed control is critical to protect sugarbeet yield potential. Apply the first in-crop application of Roundup WeatherMAX at a minimum of 22 oz/A while weeds are less than 2" in height.
- Follow with additional postemergence in-crop application of Roundup WeatherMAX at a minimum of 22 oz/A for additional weed flushes before weeds exceed 4" in height.
- Add spray grade ammonium sulfate at a rate of 17 lbs/100 gallons of spray solution with Roundup® agricultural herbicides to maximize product performance.
- Use mechanical weed control/cultivation and/or residual herbicides where appropriate in your Genuity™ Roundup Ready® sugarbeets.
- Use additional herbicide modes of action/residual herbicides and/or mechanical weed control in other Roundup Ready crops you rotate with Genuity™ Roundup Ready® sugarbeets.
- Report repeated non-performance of Roundup agricultural herbicides to Monsanto or your local retailer.

AGRONOMIC PRINCIPLES IN SUGARBEETS

Sugarbeets are very sensitive to early-season weed competition. It is important to select the appropriate herbicide product, application rate and timing to minimize weed competition to protect yields. The Genuity™ Roundup Ready® sugarbeet system provides a mechanism to control weeds at planting and once Genuity™ Roundup Ready® sugarbeets emerge. Failure to control weeds with the right rate, at the right time and with the right product, can lead to increased weed competition, weed escapes and the potential for decreased yields. Tank-mixtures of Roundup agricultural herbicides with fungicides, insecticides, micronutrients or foliar fertilizers are not recommended as they may result in crop injury and reduced pest control or antagonism.

PLANTING REQUIREMENTS

Genuity™ Roundup Ready® sugarbeets are not permitted to be planted in any wildlife feed plots.

STEWARDSHIP

All Genuity™ Roundup Ready® sugarbeet farmers shall sign the Monsanto Technology/Stewardship Agreement (MTSA) limited-use license application which provides the terms and conditions for the authorized use of the product. The MTSA must be signed and approved prior to purchase or use of seed.

WEED CONTROL RECOMMENDATIONS

PROGRAM	INSTRUCTIONS AND USE RATES*	ADDITIONAL INFORMATION
Preplant Burndown	After preplant tillage or bedding operations have been completed, a preplant burndown application of Roundup WeatherMAX®** at 22 to 44 oz/A may be applied to control weeds that have germinated after tillage and prior to planting. See the label for appropriate rates by weed species and weed size.	Always utilize tillage to start with a weed-free field.
Over-The-Top Applications up to eight-leaf Genuity™ Roundup Ready® Sugarbeets	Up to two applications of Roundup agricultural herbicides may be made prior to the 8-leaf stage of Genuity™ Roundup Ready® sugarbeets. The first application of 22 to 32 oz/A of Roundup WeatherMAX** should be made when weeds are less than 2" in height to protect yield potential. Make an additional application of 22 to 32 oz/A of Roundup WeatherMAX before weeds exceed 4" in height. Maximum in-crop Roundup WeatherMAX prior to 8-leaf stage must not exceed 56 oz/A.	Sugarbeets are sensitive to weed competition and can lose yield rapidly if weeds are not controlled early. More than one in-crop Roundup WeatherMAX application will be required to control weed infestations to protect yield potential as Roundup agricultural herbicides have no soil residual activity. Add ammonium sulfate at a rate of 17 lbs/100 gallons of spray solution with Roundup agricultural herbicides to maximize product performance. Tank-mixtures of Roundup agricultural herbicides with fungicides, insecticides, micronutrients or foliar fertilizers are not recommended. Sequential applications should be at least 10 days apart.
Over-The-Top Applications to greater than eight-leaf Genuity™ Roundup Ready® Sugarbeets	Up to two additional applications of 22 oz/A of Roundup WeatherMAX can be made after the eight-leaf stage up to 30 days prior to harvest. Maximum in-crop Roundup WeatherMAX from 8-leaf stage up until 30 days prior to harvest must not exceed 44 oz/A.	Add ammonium sulfate at a rate of 17 lbs/100 gallons of spray solution with Roundup agricultural herbicides to maximize product performance. Tank-mixtures of Roundup agricultural herbicides with fungicides, insecticides, micronutrients or foliar fertilizers are not recommended. Sequential applications should be at least 10 days apart.
Maximum Use Rates	**In-Crop:** • Two applications of Roundup WeatherMAX prior to the 8-leaf stage of Genuity™ Roundup Ready® sugarbeets - 32 oz/A per single application up to the 8-leaf stage. - Combined maximum of 56 oz/A in-crop prior to the 8-leaf stage • Two applications of Roundup WeatherMAX after the 8-leaf stage up to 30 days prior to harvest - 22 oz/A per single application after the 8-leaf stage. - Combined maximum of 44 oz/A in-crop after the 8-leaf stage until 30 days prior to harvest	**Total Per Year:** The combined total per year for all Roundup WeatherMAX applications including pre-plant must not exceed 5.3 qt/A. Total in-crop application must not exceed 3 qt/A. Add ammonium sulfate at a rate of 17 lbs/100 gallons of spray solution with Roundup agricultural herbicides to maximize product performance. Tank-mixtures of Roundup agricultural herbicides with fungicides, insecticides, micronutrients or foliar fertilizers are not recommended.

*Follow all pesticide label requirements.

**If using another Roundup agricultural herbicide, you must refer to the label booklet or separately published Genuity™ Roundup Ready® sugarbeets supplemental label for that brand to determine appropriate use rates. If using Roundup PowerMAX, application rates are the same as for Roundup WeatherMAX.

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- Saves the equivalent of 585 mature trees
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Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, **including applicable refuge requirements for insect resistance management,** for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

Roundup Ready® Alfalfa seed is currently not for sale or distribution. The movement and use of Roundup Ready® Alfalfa forage is subject to a USDA administrative Order available at http://www.aphis.usda.gov/brs/pdf/RRA_A8_final.pdf.

This stewardship statement applies to all products listed herein except Genuity™ VT Double PRO™, Genuity™ VT Triple PRO™ and Genuity™ SmartStax™. See restrictions related to Genuity™ Double PRO™, Genuity™ VT Triple PRO™ and Genuity™ SmartStax™ below:

Monsanto Company is a member of Excellence Through Stewardship® (ETS). Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. This product has been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Biotechnology Industry Organization.

IMPORTANT: Grain Marketing and Seed Availability: Genuity™ VT Double PRO™ has received the necessary approvals in the United States, however, as of October 22, 2009, approvals have not been received in certain major corn export markets. **Genuity™ VT Double PRO™** will not be launched and seed will not be available until after import approvals are received in appropriate major corn export markets. ***B.t.* products, including Genuity™ VT Double PRO™** may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

IMPORTANT: Grain Marketing and Seed Availability: Genuity™ VT Triple PRO™ has received the necessary approvals in the United States however, as of October 22, 2009, approval has not been received in all major corn export markets. Monsanto anticipates that all such approvals will be in place for the 2010 growing season. If all approvals are not in place, **Genuity™ VT Triple PRO™** seed will only be available as part of a commercial demonstration program that includes grain marketing stewardship requirements. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Consult with your seed representative for current regulatory and stewardship information status.

IMPORTANT: Grain Marketing and Seed Availability: Genuity™ SmartStax™ has received the necessary approvals in the United States, however, as of October 22, 2009, approvals have not been received in certain major corn export markets. **Genuity™ SmartStax™** will not be launched and seed will not be available until after import approvals are received in appropriate major corn export markets. ***B.t.* products, including Genuity™ SmartStax™** may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

Cottonseed containing Monsanto traits may not be exported for the purpose of planting without a license from Monsanto.

Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

Growers may utilize the natural refuge option for varieties containing the Bollgard II® trait in the following states: AL, AR, FL, GA, KS, KY, LA, MD, MS, MO, NC, OK, SC, TN, VA, and most of Texas (excluding the Texas counties of Brewster, Crane, Crockett, Culberson, El Paso, Hudspeth, Jeff Davis, Loving, Pecos, Presidio, Reeves, Terrell, Val Verde, Ward and Winkler). The natural refuge option does not apply to **Bollgard II** cotton grown in areas where pink bollworm is a pest, including CA, AZ, NM, and the above listed Texas counties. It also remains the case that **Bollgard®** and **Bollgard II** cotton cannot be planted south of Highway 60 in Florida, and that **Bollgard** cotton cannot be planted in certain other counties in the Texas panhandle. Refer to the Technology Use Guide and IRM/Grower Guide for additional information regarding Bollgard II, Bollgard, natural refuge and EPA-mandated geographical restrictions on the planting of *B.t.* cotton.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Degree® and Harness® are not registered in all states. Degree® and Harness® may be subject to use restrictions in some states. Bullet®, Degree Xtra®, Harness®, INTRRO®, Lariat®, and Micro-Tech™ are restricted use pesticides and are not registered in all states. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local Monsanto dealer or representative for the product registration status in your state.

Tank mixtures: The applicable labeling for each product must be in the possession of the user at the time of application. Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. Monsanto has not tested all tank mix product formulations for compatibility or performance other than specifically listed by brand name. Always predetermine the compatibility of tank mixtures by mixing small proportional quantities in advance.