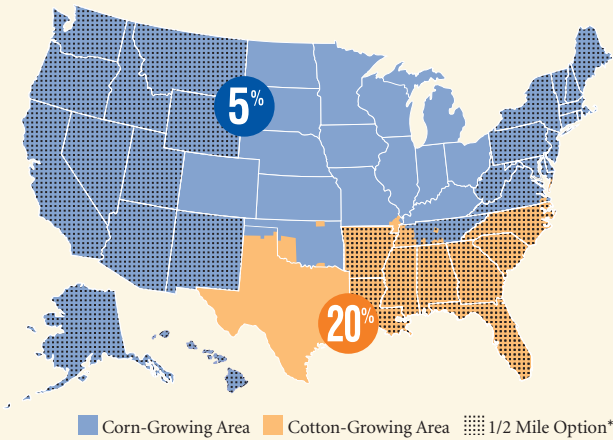


REFUGE REQUIREMENTS



Genuity® SmartStax® is the most advanced, all-in-one technology that controls a broad spectrum of above and below ground insect pests.

Genuity SmartStax has one of the lowest minimum refuge requirements available for above and below ground insects—

5% in the Corn-Growing Area and 20% in the Cotton-Growing Area.

(Refer to details on back)

CORN-GROWING AREA

5% REFUGE CONFIGURATIONS**

Within

OR Adjacent OR 1/2 Mile Option*

■ Genuity SmartStax
■ Refuge (i.e., Roundup Ready® Corn 2 or conventional corn)
 Designates road, path, ditch, etc.

COTTON-GROWING AREA

20% REFUGE CONFIGURATIONS**

Within

OR Adjacent OR 1/2 Mile Option*

■ Genuity SmartStax
■ Refuge (i.e., Roundup Ready Corn 2 or conventional corn)
 Designates road, path, ditch, etc.

REFUGE CALCULATOR — CORN-GROWING AREA

Multiply the **TOTAL** corn acres by 5%. This is your minimum **REFUGE ACRES.**

Example X **5%** =

Your Field X **5%** =

Subtract the refuge acres from the total acres. This is your maximum **B.t. ACRES.**

Example - =

Your Field - =

REFUGE CALCULATOR — COTTON-GROWING AREA

Multiply the **TOTAL** corn acres by 20%. This is your minimum **REFUGE ACRES.**

Example X **20%** =

Your Field X **20%** =

Subtract the refuge acres from the total acres. This is your maximum **B.t. ACRES.**

Example - =

Your Field - =

* An additional option to plant the refuge as a block within 1/2 mile is only available to growers in the following States: AK, AL, AR, AZ, CA, CT, DE, FL, GA, HI, ID, LA, MA, MD, ME, MS, MT, NC, NH, NJ, NM, NV, NY, OR, PA, RI, SC, TN, UT, VA, VT, WA, WV, WY.

** All configurations require a minimum of 4 contiguous rows.

Plant the minimum refuge requirement (5% or 20% depending on growing area specified on back) using common (corn rootworm and corn borer) refuge within or adjacent to each Genuity SmartStax field. Can be separated by a road, path, ditch, etc., but not by another field. Growers must read the IRM Grower Guide prior to planting for information on planting and Insect Resistance Management.

Genuity SmartStax is not approved for sale or planting in Maine, Puerto Rico (except for breeding, testing, propagation), and the U.S. Virgin Islands.



GENUITY® SMARTSTAX® CORN REFUGE REQUIREMENTS

REFUGE TARGET

Planting a non-*B.t.* common refuge provides convenience by combining the corn borer and corn rootworm refuges into one effective insect refuge. Planting a common refuge also meets the distance requirement to ensure compliance.

REFUGE PERCENTAGES FOR SPECIFIC GROWING AREAS

The refuge size is either (a minimum of) 5% in the Corn-Growing Area (i.e., 5 acres of non-*B.t.* corn for every 95 acres Genuity® SmartStax® planted) or (a minimum of) 20% in the Cotton-Growing Area (i.e., 20 acres of non-*B.t.* corn for every 80 acres Genuity SmartStax planted), as specified below.

5% **Plant a minimum 5% non-*B.t.* corn refuge** in all counties of the following states: AZ, CA, CO, CT, DE, IA, ID, IL, IN, KS, KY, MA, MD, ME, MI, MN, MT, ND, NE, NH, NM, NJ, NV, NY, OH, OR, PA, RI, SD, UT, VT, WA, WI, WV, WY, and in:

MO—all counties except Dunkin, New Madrid, Pemiscot, Scott, and Stoddard

OK—all counties except Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita

TN—all counties except Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton

TX—only the counties of Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltrie, Roberts, and Sherman

VA—all counties except Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton, Southampton, Suffolk City, Surrey, and Sussex

20% **Plant a minimum 20% non-*B.t.* corn refuge** in all counties of the following states: AL, AR, FL, GA, LA, MS, NC, SC, and in:

MO—only the counties of Dunkin, New Madrid, Pemiscot, Scott, and Stoddard

OK—only the counties of Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita

TN—only the counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton

TX—all counties except Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltrie, Roberts, and Sherman

VA—only the counties of Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton, Southampton, Suffolk City, Surrey, and Sussex

REFUGE PLANTING

The common refuge must be planted with corn hybrids that do not contain *B.t.* technologies. The refuge can be planted with Roundup Ready Corn 2 or conventional corn. Popcorn can be used as a refuge option, but sweet corn and/or silage corn cannot. The corn refuge and Genuity SmartStax corn should be sown on the same day or with the shortest window possible between planting dates to ensure that corn development is similar among hybrids. If the refuge is planted on rotated

ground, then the Genuity SmartStax must also be planted on rotated ground. If the refuge is planted on continuous corn land, the Genuity SmartStax field may be planted on either continuous or rotated land.

Ensure each *B.t.*-containing product has its own designated refuge.

A refuge for Genuity SmartStax cannot also function as the refuge for another *B.t.* technology.

REFUGE LOCATION

The common refuge can be within or adjacent to the Genuity SmartStax field. If adjacent, it can be separated by a road, path, ditch, etc., but not by another field.*

REFUGE CONFIGURATION OPTIONS

The common refuge must be planted as an in-field or adjacent refuge. It can be planted as a block within or adjacent (e.g., across the road) to the Genuity SmartStax field, perimeter strips (i.e., strips around the field), or in-field strips. Growers should calculate the acres required for refuge and plant the appropriate amount of refuge seed for the configuration option selected. For example, if in the 5% refuge area and choosing to plant in-field strips, calculate how much refuge seed is needed to meet the 5% minimum requirement and fill the refuge planter boxes with that amount. Plant the strips until the 5% minimum refuge seed is completed. Then fill the planter boxes with Genuity SmartStax seed and continue planting the rest of the field.


SIZE

If perimeter strips or in-field strips are implemented, they must be at least 4 (four) consecutive rows of corn wide.

TREATMENT (follow all pesticide label directions)

Under typical growing conditions for planted Genuity SmartStax, routine applications of insecticides to control pests are usually unnecessary. However, the common refuge can be protected from lepidopteran damage by use of non-*B.t.* insecticides if the population of one or more target lepidopteran pests in the refuge exceeds economic thresholds. The refuge can also be protected from corn rootworm damage by an appropriate seed treatment or soil insecticide; but insecticides labeled for adult corn rootworm control must be avoided in the refuge during the period of corn rootworm adult emergence. Economic thresholds will be determined using methods recommended by local or regional professionals (e.g., extension service agents and crop consultants). Genuity SmartStax contains Roundup Ready® 2 Technology and LibertyLink® herbicide tolerance traits, but your refuge may or may not. Select an appropriate herbicide for your refuge before spraying the refuge, to avoid crop damage.

*Monsanto recommends planting the corn refuge for Genuity SmartStax as an in-field or adjacent refuge as explained in the IRM Grower Guide. However, if corn rootworms are not significant within a region, the common refuge may also be planted as a separate block that is within 1/2 mile of the Genuity SmartStax field. This additional option to plant the refuge as a block within 1/2 mile is only available in limited areas. Please refer to the IRM Grower Guide prior to planting.



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/Stewardship 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.



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. Commercial product(s) 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.

B.t. products may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

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. Genuity®, Genuity and Design®, Roundup®, Roundup Ready®, Roundup Ready 2 Technology and Design®, SmartStax®, SmartStax and Design®, and Monsanto and Vine Design® are trademarks of Monsanto Technology LLC. Ignite® and LibertyLink® and the Water Droplet Design® are registered trademarks of Bayer. Herculex® is a trademark of Dow AgroSciences LLC. Respect the Refuge® and Respect the Refuge and Corn Design® are registered trademarks of National Corn Growers Association. All other trademarks are the property of their respective owners. ©2011 Monsanto Company. [23699Fpgd] 5A7K116013

MONSANTO

