

**Plant-Incorporated Protectant Label**

**MON 89034 × TC1507 × MON 88017 × DAS-59122-7**

**Insect-Protected, Herbicide-Tolerant Corn**

**(Alternate brand name: Genuity™ SmartStax™)**

(OECD Unique Identifier: MON-89034-3 × DAS-01507-1 × MON-88017-3 × DAS-59122-7)

**Active Ingredients:**

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*Bacillus thuringiensis* Cry1A.105 protein and the genetic material necessary (vector PV-ZMIR245) for its production in corn event MON 89034.....≤ 0.0026%\*

*Bacillus thuringiensis* Cry2Ab2 protein and the genetic material necessary (vector PV-ZMIR245) for its production in corn event MON 89034 .....≤ 0.0053%\*

*Bacillus thuringiensis* Cry1F protein and the genetic material necessary (vector PHP8999) for its production in corn event TC1507 .....≤ 0.0012%\*

*Bacillus thuringiensis* Cry3Bb1 protein and the genetic material necessary (vector PV-ZMIR39) for its production in corn event MON 88017.....≤ 0.0079%\*

*Bacillus thuringiensis* Cry34Ab1 protein and the genetic material necessary (vector PHP17662) for its production in corn event DAS-59122-7..... ≤ 0.0194%\*

*Bacillus thuringiensis* Cry35Ab1 protein and the genetic material necessary (vector PHP17662) for its production in corn event DAS-59122-7..... ≤ 0.0042%\*

**Inert Ingredients:**

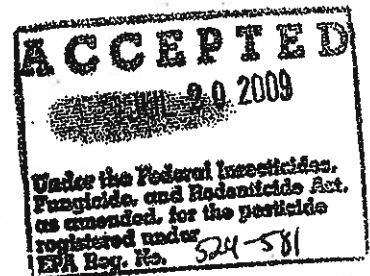
CP4 EPSPS protein (5-enolpyruvylshikimate-3-phosphate synthase) and the genetic material necessary (vector PV-ZMIR39) for its production in corn event MON 88017 .....≤ 0.0052%\*

PAT protein (phosphinothricin acetyl transferase) and the genetic material necessary (vectors PHP17622 and PHP8999) for its production in corn event TC1507 and DAS-59122-7..≤ 0.00045%\*

\*Maximum percent (wt/wt) of dry forage

**CAUTION**

Monsanto Company



07-CR-192E-1

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS \_\_\_\_\_

**EPA Registration No. 524-581**

**EPA Establishment No. 524-MO-002**  
**EPA Establishment No. 029964-LA-001**

Monsanto Company  
800 North Lindbergh Blvd.  
St. Louis, MO 63167

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this <sup>product</sup> ~~seed~~ in any manner inconsistent with <sup>its</sup> ~~the~~ labeling.  
Information regarding commercial production must be included in the Technology Use Guide.

*reflected here and in the terms + conditions of this registration.*

MON 89034 × TC1507 × DAS-59122-7 × MON 88017 protects corn crops from leaf, stalk, and ear damage caused by corn borers and root damage caused by corn rootworm larvae. In order to minimize the risk of these pests developing resistance to MON 89034 × TC1507 × DAS-59122-7 × MON 88017 corn, an insect resistance management plan must be implemented which includes planting of a structured refuge. Growers who fail to comply with the IRM requirements risk losing access to Monsanto's corn PIP products.

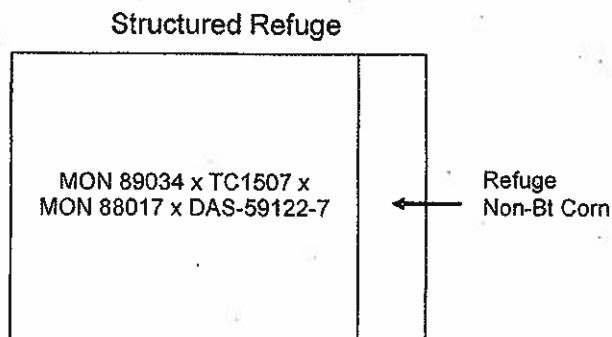
These refuge requirements do not apply to seed propagation of inbred and hybrid seed corn up to a total of 20,000 acres per county and up to a combined US total of 250,000 acres per PIP active ingredient per year.

Several options for deployment of the refuge for MON 89034 × TC1507 × DAS-59122-7 × MON 88017 are available to growers. These options are based on the planting of MON 89034 × TC1507 × DAS-59122-7 × MON 88017 in cotton or non-cotton growing regions and the insect pressure present in those locations. The refuge sizes for these regions are either 5% (i.e. 5 acres of non-Bt corn for every 95 acres MON 89034 × TC1507 × DAS-59122-7 × MON 88017 planted) or 20% (20 acres of non-Bt corn for every 80 acres of MON 89034 × TC1507 × DAS-59122-7 × MON 88017 planted), and are presented in the table below:

Region	Refuge size	In-field or adjacent refuge allowed	Refuge separated by up to ½ mile allowed
Cotton growing where CEW is a significant pest and WCRW, NCRW and MCRW are not significant: NC, SC, GA, FL, TN (only the counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton), AL, MS, LA, AR, VA (only the counties of Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton, Southampton, Suffolk City, Surrey, and Sussex)	20% non-Bt corn	Yes	Yes
Cotton growing where CEW is a significant pest and WCRW, NCRW, and/or MCRW are significant: TX (except the counties of Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltree, Roberts, and Sherman), OK (only the counties of Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita), MO (only the counties of Dunkin, New Madrid, Pemiscot, Scott, and Stoddard)	20% non-Bt corn	Yes	No
Cotton growing where CEW is not a significant pest and WCRW, NCRW and MCRW are not significant: NM, AZ, CA, NV	5% non-Bt corn	Yes	Yes
Non-cotton growing where WCRW, NCRW and MCRW are not significant: OR, WA, ID, MT, WY, UT, VA (except the counties of Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton,	5% non-Bt corn	Yes	Yes

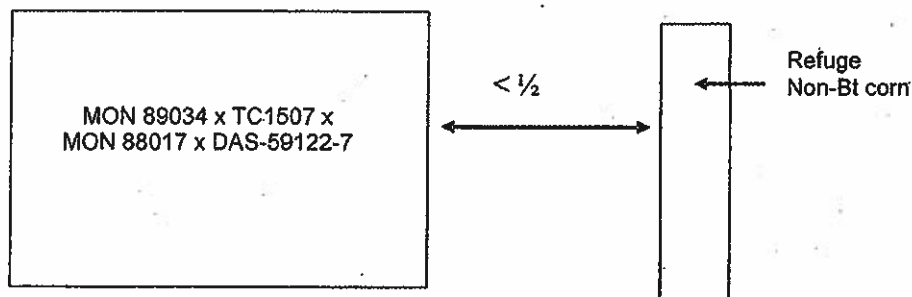
Southampton, Suffolk City, Surrey, and Sussex), WV, PA, MD, DE, CT, RI, NJ, NY, ME, MA, NH, VT, HI, AK, TN (except the counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton)			
Non-cotton-growing where WCRW, NCRW and/or MCRW are significant: KS, NE, SD, ND, MN, IA, MO (except the counties of Dunkin, New Madrid, Pemiscot, Scott, and Stoddard), IL, WI, MI, IN, OH, KY, CO, OK (except the counties of Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita), TX (only the counties of Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltree, Roberts, and Sherman)	5% non-Bt corn	Yes	No

If corn rootworms are significant within a region, the structured refuge must be planted as an in-field or adjacent refuge using corn hybrids that do not contain Bt technologies for the control of corn borers or corn rootworms. It can be planted as a block within or adjacent (e.g., across the road) to the MON 89034 × TC1507 × MON 88017 × DAS-59122-7, perimeter strips (i.e., strips around the field), or in-field strips. If perimeter or in-field strips are implemented, the strips must be at least 4 consecutive rows wide. The refuge can be protected from lepidopteran damage by use of non-Bt insecticides if the population of one or more target lepidopteran pests of MON 89034 × TC1507 × MON 88017 × DAS-59122-7 in the refuge exceeds economic thresholds. In addition, the refuge can be protected from CRW damage by an appropriate seed treatment or soil insecticide; however, insecticides labeled for adult CRW control must be avoided in the refuge during the period of CRW adult emergence. Economic thresholds will be determined using methods recommended by local or regional professionals (e.g., Extension Service agents, crop consultants). A schematic of one common refuge deployment option is shown below:



If corn rootworms are not significant within a region, the structured refuge may be planted as an in-field or adjacent refuge, or as a separate block that is within ½ mile of the MON 89034 × TC1507 × MON 88017 × DAS-59122-7 field. The structured refuge must be planted with corn hybrids that do not contain Bt technologies for the control of corn borers or corn rootworms. Economic thresholds will be determined using methods recommended by local or regional professionals (e.g., Extension Service agents, crop consultants). A schematic of one refuge option with the refuge planted within a ½ mile of the MON 89034 × TC1507 × MON 88017 × DAS-59122-7 field is shown below:

#### Separated Structured Refuge



#### Corn Insects Controlled or Suppressed

European corn borer (ECB)  
 Southwestern corn borer (SWCB)  
 Southern cornstalk borer (SCSB)  
 Corn earworm (CEW)  
 Fall armyworm (FAW)  
 Stalk borer  
 Lesser corn stalk borer  
 Sugarcane borer (SCB)  
 Western bean cutworm (WBC)  
 Black cutworm

*Ostrinia nubilalis*  
*Diatraea grandiosella*  
*Diatraea crambidoides*  
*Helicoverpa zea*  
*Spodoptera frugiperda*  
*Papaipema nebris*  
*Elasmopalpus lignosellus*  
*Diatraea saccharalis*  
*Richia albicosta*  
*Agrotis ipsilon*

Western corn rootworm (WCRW)  
 Northern corn rootworm (NCRW)  
 Mexican corn rootworm (MCRW)

*Diabrotica virgifera virgifera*  
*Diabrotica barberi*  
*Diabrotica virgifera zea*

Sales of corn hybrids that contain Monsanto's Bt corn plant pesticide must be accompanied by a Grower Guide which includes information on planting, production and insect resistance management and notes that routine applications of insecticides to control these insects are usually unnecessary when corn containing the Bt proteins is planted.

MON 89034 × TC1507 × MON 88017 × DAS-59122-7 is a product of Monsanto's and Dow AgroSciences' research programs, offering unique genetic characteristics for specific grower needs and may be protected by one or more of the following U.S. patents: 5023179, 5110732, 5164316, 5196525, 5322938, 5352605, 5359142, 5378619, 5424412, 5554798, 5641876, 5717084, 5728925, 5804425, 6018100, 6025545, 6051753, 6063597, 6083878, 6331665, 6489542, 6645497, 6962705, 7064249, 7227056, and 7250501.

EPA Accepted:   /  /