68467-7 11/27/2013 1/14

UNITED ATES ENVIRONMENTAL PROTECTIOI GENCY

NOV 27 2013

Greg L. Orr, Ph.D.
Global Regulatory Leader
Mycogen Seeds c/o Dow AgroSciences LLC
9300 Zionsville Road
Indianapolis, IN 46268

Re: SmartStax®
EPA Registration No. 68467-7
Amendment to label, primary brand name, confidential statement of formula, terms and conditions of registration and extension of expiration date of registration
Submissions dated 7/19/2013 and 11/26/2013
Decision No. 481509

Dear. Dr. Orr:

The amendment referred to above, submitted in connection with registration under Section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable only as an extension to the current conditional, time-limited registration and provided that you comply with the updated terms and conditions as described in this letter.

1) The subject registration will automatically expire on midnight November 30, 2018.

2) The subject registration will be limited to MON 89034 x TC1507 x MON 88017 x DAS-59122-7 in field corn.

3) Submit/cite all data required for registration of your product under FIFRA § 3(c)(5) when the Environmental Protection Agency (EPA) requires registrants of similar products to submit such data.

4) Submit/cite all data, determined by EPA to be acceptable and required to support the individual plant-incorporated protectants in MON 89034 x TC1507 x MON 88017 x DAS-59122-7 within the time frames required by the terms and conditions of EPA Registration Numbers 68467-2, 68467-5 and 68467- 6, respectively.

ONCURRENCES								
SYMBOL ▶	7511P	7511P						
SURNAME ▶	Schold	Reynolds						
DATE ▶	11/27/13	11/27/13						

EPA Form 1320-1A (1/90) OFFICIAL FILE COPY

5) This plant-incorporated protectant may be combined through conventional breeding with other registered plant-incorporated protectants that are similarly approved for use in combination, through conventional breeding, with other registered plant-incorporated protectants to produce inbred corn lines and hybrid corn varieties with combined pesticidal traits.

6) You must commit to implement an Insect Resistance Management (IRM) Program, consisting of the following elements:

- Requirements relating to creation of a non-Bt refuge in conjunction with the planning of any acreage of SmartStax® corn;

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to prepare and require SmartStax® users to sign "grower agreements," that impose binding contractual obligations on the grower to comply with the refuge requirements.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to develop, implement and report to EPA on programs to educate growers about IRM requirements.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to develop, implement and report to EPA on programs to evaluate and promote growers' compliance with IRM requirements.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to develop, implement and report to EPA on monitoring programs to evaluate whether there are statistically significant and biologically relevant changes in target insect susceptibility to Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1 and Cry 34/35Ab1proteins in the target insects.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to develop and, if triggered, to implement a remedial action plan that would contain measures Mycogen Seeds c/o Dow AgroSciences LLC would take in the event that any field relevant insect resistance was detected as well as to report on activity under the plan to EPA.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC to maintain, and provide the Agency upon request, the number of units sold by state and county, IRM grower agreement results, and substantive changes to educational programs, for the previous growing season, within three months of the Agency's request.

- Requirements for Mycogen Seeds c/o Dow AgroSciences LLC, on or before August 31st of each year, to submit reports on resistance monitoring.

a) Refuge Requirements for SmartStax® corn

These refuge requirements do not apply to seed increase/propagation of inbred and hybrid seed corn up to a total of 20,000 acres per county and up to a combined United States (U.S.) total of 250,000 acres per plant-incorporated protectant (PIP) active ingredient per registrant per year. Grower agreements (also known as stewardship agreements) will specify that growers must adhere to the refuge requirements as described in the grower guide/product use guide and/or in supplements to the grower guide/product use guide.

A common refuge must be planted for both corn borers and corn rootworms. The refuge must be planted with corn hybrids that do not contain *Bt* technologies for the control of corn rootworms or corn borers. The refuge and SmartStax® corn should be sown on the same day, or with the shortest window possible between planting dates to ensure that corn root development is similar among varieties. If the refuge is planted on rotated ground, then the SmartStax® corn must also be planted on rotated ground. If the combined refuge is planted on continuous corn, the SmartStax® field may be planted on either continuous or rotated land (option encouraged where WCRW rotation resistant biotype may be present). Refuge options are based on the planting of SmartStax® in cotton or non-cotton growing regions and the insect pressure present in those locations. The refuge sizes for these regions are either 20% in cotton growing regions (i.e. 20 acres of non-*Bt* corn for every 80 acres of SmartStax® planted) or 5% in non-cotton growing regions (5 acres of non-*Bt* corn for every 95 acres of SmartStax® planted). 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 SmartStax® field, perimeter strips (i.e., strips around the field), or in-field strips. If perimeter or infield 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 SmartStax® corn 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. If insecticides are applied to the refuge for control of CRW adults, the same treatment must also be applied in the same timeframe to SmartStax®. Economic thresholds will be determined using methods recommended by local or regional professionals (e.g., Extension Service agents, crop consultants). 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 1/2 mile of the SmartStax® 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).

Region	Refuge size	In-field or adjacent refuge is allowed	Refuge separated by up to 1/2 mile is allowed
Cotton growing where CEW is a significant pest and WCRW, NCRW and MCRW are not significant: AR, 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, 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

Region	Refuge size	In-field or adjacent refuge is allowed	Refuge separated by up to 1/2 mile is allowed
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, 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)	5% non-*Bt* corn	Yes	Yes
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

b) Grower Agreements for SmartStax® corn

1) Persons purchasing SmartStax® corn must sign a grower agreement. The term "grower agreement" refers to any grower purchase contract, license agreement, or similar legal document.

2) The grower agreement and/or specific stewardship documents referenced in the grower agreement must clearly set forth the terms of the current IRM program. By signing the grower agreement, a grower must be contractually bound to comply with the requirements of the IRM program.

3) Mycogen Seeds c/o Dow AgroSciences LLC must continue to integrate this amended registration into the current system used for its other *Bt* corn plant-incorporated protectants, which is reasonably likely to assure that persons purchasing SmartStax® corn will affirm annually that they are contractually bound to comply with the requirements of the IRM program.

4) Mycogen Seeds c/o Dow AgroSciences LLC must continue to use its current grower agreement for SmartStax® corn. If Mycogen Seeds c/o Dow AgroSciences LLC wishes to change any part of the grower agreement or any specific stewardship documents referenced in the grower agreement that would affect either the content of the IRM program or the legal enforceability of the provisions of the agreement relating to the IRM program, thirty (30) days prior to implementing a proposed change,

Mycogen Seeds c/o Dow AgroSciences LLC must submit to EPA the text of such changes to ensure that it is consistent with the terms and conditions of this amended registration.

5) Mycogen Seeds c/o Dow AgroSciences LLC shall maintain records of all SmartStax® grower agreements for a period of three years from December 31st of the year in which the agreement was signed.

6) Mycogen Seeds c/o Dow AgroSciences LLC shall make available to the Agency upon request records of the number of units of SmartStax® corn seed sold or shipped and not returned, and the number of such units that were sold to persons who have signed grower agreements, for the previous growing season. Mycogen Seeds c/o Dow AgroSciences LLC is required to submit reports within three months of the Agency's request.

7) Mycogen Seeds c/o Dow AgroSciences LLC must allow a review of the grower agreements and grower agreement records by EPA or by a State pesticide regulatory agency if the State agency can demonstrate that confidential business information, including names, personal information, and grower license number, will be protected.

c) IRM Education and IRM Compliance Monitoring Programs for SmartStax® corn

1) Mycogen Seeds c/o Dow AgroSciences LLC must continue to implement and enhance (as set forth in paragraph 17 of this section) a comprehensive, ongoing IRM education program designed to convey to SmartStax® corn users the importance of complying with the IRM program. The program shall include information encouraging SmartStax® corn users to pursue optional elements of the IRM program relating to refuge configuration and proximity to SmartStax® corn fields. The education program shall involve the use of multiple media (e.g., face-to-face meetings, mailing written materials, EPA-reviewed language on IRM requirements on the bag or bag tag, and electronic communications such as by Internet, radio, or television commercials). Copies of the materials will be provided to EPA for its records. The program shall involve at least one written communication annually to each SmartStax® corn user separate from the grower technical guide. The communication shall inform the user of the current IRM requirements. Mycogen Seeds c/o Dow AgroSciences LLC shall coordinate its education programs with educational efforts of other registrants and organizations, such as the National Corn Growers Association and state extension programs.

2) Annually, Mycogen Seeds c/o Dow AgroSciences LLC shall revise, and expand as necessary, its education program to take into account the information collected through the compliance survey required under paragraphs 6a -8 of this section and from other sources. The changes shall address aspects of grower compliance that are not sufficiently high.

3) Upon EPA request, Mycogen Seeds c/o Dow AgroSciences LLC shall provide copies of grower education materials and information on grower education activities including substantive changes to these materials and activities conducted either individually or as part of the industry working group, Agricultural Biotechnology Stewardship Technical Committee (ABSTC). Mycogen Seeds c/o Dow AgroSciences LLC is required to submit reports within three months of the Agency's request.

4) Mycogen Seeds c/o Dow AgroSciences LLC must continue to implement and improve an ongoing IRM compliance assurance program designed to evaluate the extent to which growers purchasing SmartStax® corn are complying with the IRM program and that takes such actions as are reasonably needed to assure that growers who have not complied with the program either do so in the future or

lose their access to Mycogen Seeds c/o Dow AgroSciences LLC's corn PIP products. Mycogen Seeds c/o Dow AgroSciences LLC shall coordinate with other *Bt* corn registrants in improving its compliance assurance program and continue to integrate this amended registration into the current compliance assurance program used for its other *Bt* corn plant-incorporated protectants. Other required features of the program are described in paragraphs 5–22.

5) Mycogen Seeds c/o Dow AgroSciences LLC must maintain and publicize a "phased compliance approach," i.e., a guidance document that indicates how the registrant will address instances of non-compliance with the terms of the IRM program and general criteria for choosing among options for responding to any non-compliant growers after the first year of noncompliance. While recognizing that for reasons of difference in business practices there are needs for flexibility between different companies, all *Bt* corn registrants must use a consistent set of standards for responding to non-compliance. An individual grower found to be significantly out of compliance two years in a row would be denied access the next year to Mycogen Seeds c/o Dow AgroSciences LLC's *Bt* corn products for which the grower is required to plant a separate structured refuge. Similarly, seed dealers who are not fulfilling their obligations to inform/educate growers of their IRM obligations will lose their opportunity to sell *Bt* corn.

6) The IRM compliance assurance program shall include an annual survey, conducted by an independent third party[1], of a statistically representative sample of growers of SmartStax® field corn who plant the vast majority of all corn in the United States and in areas in which the selection intensity is greatest. The survey shall consider only those growers who plant 200 or more acres of corn in the Corn-Belt and who plant 100 or more acres of corn in corn-cotton areas. The survey shall measure the degree of compliance with the IRM program by growers in different regions of the country and consider the potential impact of non-response. The sample size and geographical resolution may be adjusted annually, based upon input from independent marketing research firms and academic scientists, to allow analysis of compliance behavior within regions or between regions. The sample size must provide a reasonable sensitivity for comparing results across the United States.

7) The survey shall be designed to provide an understanding of any difficulties growers encounter in implementing IRM requirements. An analysis of the survey results must include the reasons, extent, and potential biological significance of any implementation deviations.

8) The survey shall be designed to obtain grower feedback on the usefulness of specific educational tools and initiatives.

9) Mycogen Seeds c/o Dow AgroSciences LLC shall provide a final written summary of the results of the prior year's survey (together with a description of the regions, the methodology used, and the supporting data) to EPA on or before January 31st of each year. Mycogen Seeds c/o Dow AgroSciences LLC shall confer with other registrants and EPA on the design and content of the survey prior to its implementation.

10) Annually, Mycogen Seeds c/o Dow AgroSciences LLC shall revise, and expand as necessary, its compliance assurance program to take into account the information collected through the compliance survey required under paragraphs 6 through 8 and from other sources. The changes shall address

[1] A third party is classified as a party other than the registrant, the grower, or anyone else with a direct interest in IRM compliance for *Bt* corn.

aspects of grower compliance that are not sufficiently high. Mycogen Seeds c/o Dow AgroSciences LLC must confer with the Agency prior to adopting any changes.

11) Mycogen Seeds c/o Dow AgroSciences LLC shall conduct an annual on-farm assessment program. Mycogen Seeds c/o Dow AgroSciences LLC shall train its representatives who make on-farm visits with growers of SmartStax® to perform assessments of compliance with IRM requirements. There is no minimum corn acreage size for this program. Therefore, growers will be selected for this program from across all farm sizes. In the event that any of these visits result in the identification of a grower who is not in compliance with the IRM program, Mycogen Seeds c/o Dow AgroSciences LLC shall take appropriate action, consistent with its "phased compliance approach," to promote compliance.

12) Mycogen Seeds c/o Dow AgroSciences LLC shall carry out a program for investigating legitimate "tips and complaints" that its growers are not in compliance with the IRM program. Whenever an investigation results in the identification of a grower who is not in compliance with the IRM program, Mycogen Seeds c/o Dow AgroSciences LLC shall take appropriate action, consistent with its "phased compliance approach."

13) If a grower, who purchases SmartStax® for planting, was specifically identified as not being in compliance during the previous year, Mycogen Seeds c/o Dow AgroSciences LLC shall visit with the grower and evaluate whether the grower is in compliance with the IRM program for the current year.

14) Annually, Mycogen Seeds c/o Dow AgroSciences LLC shall provide a report to EPA summarizing the activities carried out under their compliance assurance program for the prior year and the plans for the compliance assurance program during the current year. Within one month of submitting this report to EPA, Mycogen Seeds c/o Dow AgroSciences LLC shall meet with EPA to discuss its findings. The report will include information regarding grower interactions (including, but not limited to, on-farm visits, verified tips and complaints, grower meetings and letters), the extent of non- compliance, corrective measures to address the non-compliance, and any follow-up actions taken. The report must inform EPA of the number of growers deemed ineligible to purchase *Bt* corn seed on the basis of continued non-compliance with the insect resistance management refuge requirements. Mycogen Seeds c/o Dow AgroSciences LLC may elect to coordinate information with other registrants and report collectively the results of compliance assurance programs.

15) Mycogen Seeds c/o Dow AgroSciences LLC and the seed corn dealers for Mycogen Seeds c/o Dow AgroSciences LLC must allow a review of the compliance records by EPA or by a State pesticide regulatory agency if the State agency can demonstrate that confidential business information, including the names, personal information, and grower license number of the growers will be protected.

16) Mycogen Seeds c/o Dow AgroSciences LLC may coordinate with other registrants in designing and implementing its Compliance Assurance Program.

17) Mycogen Seeds c/o Dow AgroSciences LLC will enhance the refuge education program throughout the seed delivery channel to:

i. Ensure sales representatives, licensees, seed dealers, and growers recognize the importance of correct refuge implementation and potential consequences of failure to plant the required refuge;

ii. Continue to include the refuge size requirement on all *Bt* corn seed bags or bag tags. The PIP product label accepted by EPA must include how this information will be conveyed to growers via text and graphics.

18) Mycogen Seeds c/o Dow AgroSciences LLC will focus the majority of on-farm assessments on regions with the greatest risks for resistance by:

i. Using *Bt* corn adoption, pest pressure information, and other available information to identify regions where the risk of resistance is greatest;

ii. Focusing approximately two-thirds of on-farm assessments on these regions, with the remaining assessments conducted across other regions where the product is used.

19) Mycogen Seeds c/o Dow AgroSciences LLC will use its available SmartStax® sales records and other information to refine grower lists for on-farm assessments of their compliance with refuge requirements to:

i. Identify for potential on-farm assessment growers whose sales information indicates they have purchased the SmartStax® corn product but may have purchased little or no refuge seed from the registrant, licensee, or affiliated company.

20) Mycogen Seeds c/o Dow AgroSciences LLC will contract with third parties to perform on-farm assessments of compliance with refuge requirements:

i. The third-party assessors will conduct all first-time on-farm assessments as well as second-year on-farm assessments of those growers found out of compliance in a first-time assessment.

21) Mycogen Seeds c/o Dow AgroSciences LLC will annually refine the on-farm assessment program for the SmartStax® corn product to reflect the adoption rate and level of refuge compliance for the product.

22) Mycogen Seeds c/o Dow AgroSciences LLC will follow up with growers who have been found significantly out of compliance under the on-farm assessment program and are found to be back in compliance the following year:

i. When on-farm assessments identify non-compliance with refuge requirements for one or more *Bt* corn products, additional educational material and assistance will be provided by Mycogen Seeds c/o Dow AgroSciences LLC to help these growers meet the refuge requirements across their farming operations. All growers found to be significantly out of compliance in a prior year will annually be sent additional refuge assistance information for a minimum of two years by Mycogen Seeds c/o Dow AgroSciences LLC, a seed supplier, or third party assessor, after completing the assessment process;

ii. Mycogen Seeds c/o Dow AgroSciences LLC will conduct follow-up checks on growers found to be significantly out of compliance within three years after they are found to be back in compliance;

iii. A grower found with a second incident of significant non-compliance with refuge requirements for *Bt* corn within a five-year period will be denied access the next year to Mycogen Seeds c/o Dow

9/14

AgroSciences LLC's *Bt* corn products for which the grower is required to plant a separate structured refuge.

d) Insect Resistance Monitoring and Remedial Action Plans for SmartStax® corn

Existing programs for resistance monitoring and remedial action that were established for MON 89034 (Cry1A.105 and Cry2Ab2), MON 88017 (Cry3Bbl), TC1507 (Cry 1F) and Herculex RW (Cry34/35Ab1) should be applicable to SmartStax® corn. In light of potentially lower overall structured *Bt* corn structured refuge, the CRW resistance monitoring program must be expanded (i.e. with additional sampling and collection sites or improved monitoring techniques). Also, a revised definition of "resistance" may be needed for the CRW monitoring and remedial action plans based on recent research and selection experiments (Lefko et al. 2008; Meihls et al. 2008). You must submit a revised resistance monitoring and remedial action plan within 90 days of the date of registration that must be found acceptable to BPPD by April 1, 2014.

A report on results of resistance monitoring and investigations of damage reports must be submitted to the Agency annually by August 31st each year, beginning in 2014, for the duration of the conditional registration.

e) Annual Reporting Requirements for SmartStax® Corn

1) Compliance Assurance Plan: Compliance Assurance Program activities, including IRM Grower Survey results and on-farm assessment results for the prior year and plans for the compliance assurance program for the current year, on or before January 31st of each year, beginning in 2014.

2) Insect Resistance Monitoring Results: Results of monitoring and investigations of damage reports, on or before August 31st each year.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of this product constitutes acceptance of these conditions.

The basic confidential statement of formula (CSF) dated November 26, 2013 is acceptable and supersedes all previous basic CSFs. A copy has been placed in the file jacket for this registration.

A stamped copy of the label is enclosed for your records.

Sincerely,

for

Kimberly Nesci, Chief
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)

Enclosure

Plant-Incorporated Protectant Label

SmartStax®

(Alternate Brand Name MON 89034 × TC1507 × MON 88017 × DAS-59122-7
Insect Protected Herbicide-Tolerant Corn)
(OECD Unique Identifier: MON-89Ø34-3 × DAS- Ø15Ø7-1 ×
MON-88Ø17-3 × DAS-59122-7)

Active Ingredients:
Bacillus thuringiensis Cry1A.105 protein and the genetic material (vector PV-ZMIR245) necessary for its production in corn event MON 89034 (OECD Unique Identifier: MON-89Ø34-3) .....≤ 0.0026%*

Bacillus thuringiensis Cry2Ab2 protein and the genetic material (vector PV-ZMIR245) necessary for its production in corn event MON 89034 (OECD Unique Identifier: MON-89Ø34-3).....≤ 0.0053%*

Bacillus thuringiensis Cry1F protein and the genetic material (vector PHP8999) necessary for its production in corn event TC1507 (OECD Unique Identifier: DAS- Ø15Ø7-1) .....≤ 0.0012%*

Bacillus thuringiensis Cry3Bb1 protein and the genetic material (vector PV-ZMIR39) necessary for its production in corn event MON 88017 (OECD Unique Identifier: MON-88Ø17-3).....≤ 0.0079%*

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

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

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

PAT protein (phosphinothricin acetyl transferase) and the genetic material (vectors PHP17662 and PHP8999) necessary for its production in corn events TC1507 and DAS-59122-7.....≤ 0.00045%*
*Maximum percent (wt/wt) of dry forage

KEEP OUT OF REACH OF CHILDREN

CAUTION

NET CONTENTS_____

EPA Registration No. 68467-7
EPA Establishment No. 62719-IN-001

ACCEPTED
NOV 27 2013
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 68467-7

Mycogen Seeds c/o Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

SmartStax® multi-event technology developed by Dow AgroSciences and Monsanto.
®SmartStax is a registered trademark of Monsanto Technology LLC

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. Information regarding commercial production reflected here and in the terms and conditions of this registration must be included in the Grower Guide.

SmartStax® 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 SmartStax® 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.

A common refuge must be planted for both corn borers and corn rootworms. The refuge must be planted with corn hybrids that do not contain *Bt* technologies for the control of corn rootworms or corn borers. The refuge and SmartStax® corn should be sown on the same day, or with the shortest window possible between planting dates to ensure that corn root development is similar among varieties. If the refuge is planted on rotated ground, then the SmartStax® corn must also be planted on rotated ground. If the combined refuge is planted on continuous corn, the SmartStax® field may be planted on either continuous or rotated land (option encouraged where WCRW rotation resistant biotype may be present). Refuge options are based on the planting of MON 89034 × TC1507 × MON 88017 × DAS-59122-7 in cotton or non-cotton growing regions and the insect pressure present in those locations.

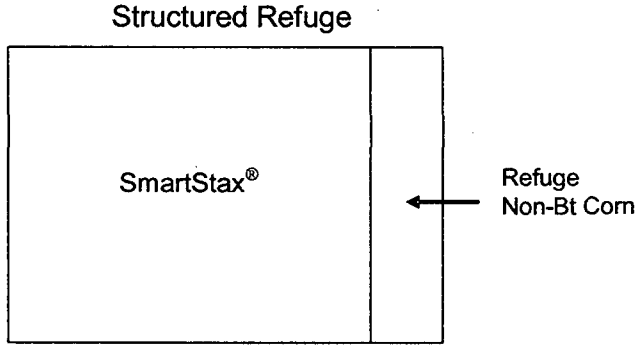
If insecticides are applied to the refuge for control of CRW adults, the same treatment must also be applied in the same timeframe to SmartStax®.

Several options for deployment of the refuge for SmartStax® are available to growers. These options are based on the planting of SmartStax® 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 SmartStax® planted) or 20% (20 acres of non-Bt corn for every 80 acres of SmartStax® planted), and are presented in the table below:

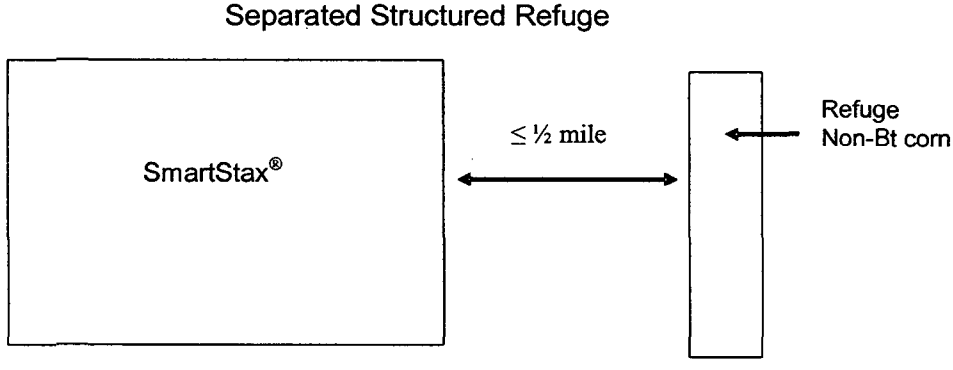
Region	Refuge size	In-field or adjacent refuge allowed	Refuge separated by up to ½ mile allowed
Cotton growing where CEW is a significant pest and WCRW, NCRW and MCRW are not significant: NC, SC, GA, FL, TN (only the counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, 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,	20% non-Bt corn	Yes	No

Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita), MO (only the counties of Dunklin, New Madrid, Pemiscot, Scott, and Stoddard)			
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, 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, Laûderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton)	5% non-Bt corn	Yes	Yes
Non-cotton-growing where WCRW, NCRW and/or MCRW are significant: KS, NE, SD, ND, MN, IA, MO (except the counties of Dunklin, 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 SmartStax®, 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 SmartStax® 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 SmartStax® 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 SmartStax® field is shown below:



Corn Insects Controlled or Suppressed

European corn borer (ECB)	*Ostrinia nubilalis*
Southwestern corn borer (SWCB)	*Diatraea grandiosella*
Southern cornstalk borer (SCSB)	*Diatraea crambidoides*
Corn earworm (CEW)	*Helicoverpa zea*
Fall armyworm (FAW)	*Spodoptera frugiperda*
Stalk borer	*Papaipema nebris*
Lesser corn stalk borer	*Elasmopalpus lignosellus*
Sugarcane borer (SCB)	*Diatraea saccharalis*
Western bean cutworm (WBC)	*Richia albicosta*
Black cutworm	*Agrotis ipsilon*
Western corn rootworm (WCRW)	*Diabrotica virgifera virgifera*
Northern corn rootworm (NCRW)	*Diabrotica barberi*
Mexican corn rootworm (MCRW)	*Diabrotica virgifera zeae*

Sales of corn hybrids that contain Monsanto's Bt corn plant pesticide must be accompanied by a IRM/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.

SmartStax® 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:

Dow AgroSciences Patent Rights: 6,083,499; 6,127,180; 6,218,188; 6,340,593; 6,548,291; 6,624,145; 6,893,872; 6,900,371; 6,943,282; 7,790,961 and 7,956,246; Monsanto Patent Rights: 5,717,084; 5,728,925; 6,025,545; 6,051,753; 6,063,597; 6,083,878; 6,489,542; 6,645,497; 6,713,063; 6,962,705; 7,064,249; 7,070,982; 7,250,501; 7,304,206; 7,544,862; 7,618,942; 7,700,830; 7,927,598; 8,034,997; and 8,212,113.

EPA Accepted: __/__/__