

524-551

9/29/2010

1 of 14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

SEP 29 2010

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Dr. Russell P. Schneider  
Senior Director, Regulatory Affairs and Policy  
Monsanto Company  
1300 I Street, NW, Suite 450 East  
Washington, DC 20005

Re: Monsanto Company; MON 88017  
EPA Registration No. 524-551  
Amendment to convert MON 88017 from a conditional, time-limited  
registration to an unconditional registration with no expiration date and add sweet  
corn uses  
Submission dated 03/31/2010  
Decision No. 431595

Dear Dr. Schneider:

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 September 30, 2015.
- 2) The subject registration will be limited to Cry3Bb1 [*Bacillus thuringiensis* Cry3Bb1 protein and the genetic material necessary for its production (vector PV-ZMIR39) in event MON 88017 corn (OECD Unique Identifier: MON-88Ø17-3)] for use in field and sweet corn. Further, MON 88017 sweet corn must only be used for breeding and testing purposes to produce MON 89034 x MON 88017 sweet corn seed.
- 3) Submit/cite all data required for registration of your product under FIFRA section 3(c)(5) when the Environmental Protection Agency (EPA) requires registrants of similar products to submit such data.

CONCURRENCES

SYMBOL	7511P	7511P						
USERNAME	KAUSCH	Andy						
DATE	09/29/2010	9/29/10						

2014

Dr. Russell P. Schneider  
EPA Registration No. 524-551

4) 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.

5) You must commit to do the following Insect Resistance Management (IRM) Program, consisting of the following elements:

- Requirements relating to creation of a non-(corn rootworm-protected PIP) corn refuge in conjunction with the planting of any acreage of commercial MON 88017 corn.
- Requirements for Monsanto Company (Monsanto) to prepare and require MON 88017 users to sign grower agreements that impose binding contractual obligations on growers to comply with the refuge requirements.
- Requirements for Monsanto to develop, implement, and report to EPA on programs to educate growers about IRM requirements.
- Requirements for Monsanto to develop, implement, and report to EPA on programs to evaluate and promote growers' compliance with IRM requirements.
- Requirements for Monsanto to develop, implement, and report to EPA on monitoring programs to evaluate whether there are statistically significant and biologically relevant changes in susceptibility to Cry3Bb1 protein in the target insects.
- Requirements for Monsanto to develop, and if triggered, to implement a remedial action plan that would contain measures Monsanto 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 Monsanto, on or before January 31<sup>st</sup> of each year, to submit reports on units sold by state (units sold by county level will made available to EPA upon request), IRM grower agreement results, and the compliance assurance program, including the education program.
- Requirements for Monsanto, on or before August 31<sup>st</sup> of each year, to submit reports on resistance monitoring.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

**a. Refuge Requirements for MON 88017**

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. Furthermore, these refuge requirements do not apply to MON 88017 sweet corn, used only for breeding and testing purposes to produce MON 89034 x MON 88017 sweet corn seed.

When on-farm assessments identify non-compliance with refuge requirements for one or more *Bacillus thuringiensis* (*Bt*) corn products, additional educational material and assistance will be provided by Monsanto to help these growers meet the refuge requirements across their farming operations.

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.

- Specifically, growers must plant a structured refuge of at least 20% non-corn rootworm-protected corn that may be treated with insecticides as needed to control corn rootworm larvae. Growers will not be permitted to apply corn rootworm-labeled insecticides to the refuge for control of insect pests while adult corn rootworm are present unless the MON 88017 field is treated in a similar manner.
- Refuge planting options include the following: adjacent blocks, perimeter strips, or in-field strips.
- If blocks are implemented, they must be planted adjacent (e.g., across the road) to the MON 88017 field.
- If perimeter or in-field strips are implemented, the strips must be at least four (4) consecutive rows wide.
- Insecticide treatments for control of corn rootworm larvae may be applied. Instructions to growers will specify that insecticides labeled for control of corn rootworm adults cannot be applied while adults are present in the refuge unless the MON 88017 field is treated in a similar manner.
- If the refuge is planted in a field that is in a crop rotation system, then MON 88017 must also be planted in a field that is in a crop rotation system.
- If the refuge is planted on continuous corn, then the MON 88017 field may be planted on either continuous corn or in a field that is in a crop rotation system.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

**b. Post-Harvest Requirements for MON 88017 Sweet Corn**

Sweet corn is harvested long before field corn. Therefore, if the sweet corn stalks remaining in the field and any insects remaining in the stalks are destroyed shortly after harvest, a refuge is not needed as part of the IRM program for sweet corn. For MON 88017 sweet corn, which is planted only for breeding and testing purposes to produce MON 89034 x MON 88017 sweet corn seed, the following crop destruction practices must be implemented:

- Crop destruction must occur no later than thirty (30) days following harvest.
- The allowed crop destruction methods are rotary mowing, disking, or plow down. These methods should destroy any surviving resistant insects.

**c. Grower Agreements for MON 88017**

- 1) Persons purchasing MON 88017 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) Monsanto 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 MON 88017 will affirm annually that they are contractually bound to comply with the requirements of the IRM program.
- 4) Monsanto must continue to use its current grower agreement for MON 88017. If Monsanto 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, Monsanto 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) Monsanto 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 MON 88017 sign grower agreement(s).
- 6) Monsanto shall maintain records of all MON 88017 grower agreements for a period of three (3) years from December 31<sup>st</sup> of the year in which the agreement was signed.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

7) Annually, Monsanto shall provide EPA with a report showing the number of units of MON 88017 corn seeds sold or shipped and not returned, and the number of such units that were sold to persons who have signed grower agreements. The report shall cover the time frame of the 12-month period covering the prior August through July.

8) Monsanto 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 numbers of the growers, will be protected.

**d. IRM Education and Compliance Monitoring Programs for MON 88017**

1) Monsanto 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 MON 88017 users the importance of complying with the IRM program. The program shall include information encouraging MON 88017 users to pursue optional elements of the IRM program relating to refuge configuration and proximity to MON 88017 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 MON 88017 user separate from the grower technical guide. The communication shall inform the user of the current IRM requirements. Monsanto 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, Monsanto shall revise, and expand as necessary, its education program to take into account the information collected through the compliance survey, required under paragraph 6–8 of this section, and from other sources. The changes shall address aspects of grower compliance that are not sufficiently high.

3) Annually, Monsanto must provide EPA any substantive changes to its grower education activities as part of the overall IRM compliance assurance program report. Monsanto must either submit a separate report or contribute to the report from the industry working group, Agricultural Biotechnology Stewardship Technical Committee (ABSTC). The required features of the compliance assurance program are described in paragraphs 4–22 of this section.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

4) Monsanto must continue to implement and improve an ongoing IRM compliance assurance program designed to evaluate the extent to which growers purchasing MON 88017 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 Monsanto's *Bt* corn products. Monsanto 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 of this section.

5) Monsanto must maintain and publicize a phased compliance approach (i.e., a guidance document that indicates how it 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 non-compliance). While recognizing that for reasons of difference in business practices there are needs for flexibility between different companies, Monsanto must use a consistent set of standards for responding to non-compliance. An individual grower found to be significantly out of compliance two (2) years in a row would be denied access to Monsanto's *Bt* corn products the next year. 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, of a statistically representative sample of growers of MON 88017 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.

- i. A third party is classified as a party other than Monsanto, the grower, or anyone else with a direct interest in IRM compliance for *Bt* corn.

7) The survey shall be designed to provide an understanding of any difficulties growers encounter in implementing IRM requirements. An analysis of 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.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

- 9) Monsanto 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 31<sup>st</sup> of each year. Monsanto shall confer with other registrants and EPA on the design and content of the survey prior to its implementation.
- 10) Annually, Monsanto shall revise, and expand as necessary, its compliance assurance program to take into account the information collected through the compliance survey, required under paragraphs 6-8 of this section, and from other sources. The changes shall address aspects of grower compliance that are not sufficiently high. Monsanto must confer with EPA prior to adopting any changes.
- 11) Monsanto shall conduct an annual on-farm assessment program. Monsanto shall train its representatives who make on-farm visits with MON 88017 growers 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, Monsanto shall take appropriate action, consistent with its phased compliance approach, to promote compliance.
- 12) Monsanto shall carry out a program for investigating legitimate tips and complaints that MON 88017 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, Monsanto shall take appropriate action, consistent with its phased compliance approach.
- 13) If a grower, who purchases MON 88017 for planting, was specifically identified as not being in compliance during the previous year, Monsanto shall visit with the grower and evaluate whether the grower is in compliance with the IRM program for the current year.
- 14) Annually, Monsanto shall provide a report to EPA summarizing the activities carried out under its compliance assurance program for the prior year and the plans for the compliance assurance program during the current year. Within one (1) month of submitting this report to EPA, Monsanto 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. Monsanto may elect to coordinate information with other registrants and report collectively the results of compliance assurance programs.
- 15) Monsanto and the seed corn dealers for Monsanto 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 numbers of the growers, will be protected.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

16) Monsanto shall revise and expand its existing Compliance Assurance Program to include the following elements. Monsanto must prepare and submit, on or before January 31, 2011, a written description of its revised Compliance Assurance Program. Monsanto may coordinate with other registrants in designing and implementing its Compliance Assurance Program.

17) Monsanto will enhance the refuge education program throughout the seed delivery channel:

- 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. Include the refuge size requirement on all MON 88017 seed bags or bag tags. The MON 88017 label accepted by EPA must include how this information will be conveyed to growers via text and graphics. This requirement may be phased in over the next three (3) growing seasons. Revised MON 88017 labels must be submitted by January 31, 2011, 50% implementation on the MON 88017 seed bags or bag tags must occur by the 2012 growing season, and full implementation must occur by the 2013 growing season.

18) Monsanto will focus the majority of on-farm assessments on regions with the greatest risk for resistance:

- i. Use *Bt* corn adoption, pest pressure information, and other available information to identify regions where the risk of resistance is greatest.
- ii. Focus approximately two-thirds of on-farm assessments on these regions, with the remaining assessments conducted across other regions where MON 88017 is used.

19) Monsanto will use its available MON 88017 sales records and other information to refine grower lists for on-farm assessments of their compliance with refuge requirements:

- i. Identify for potential on-farm assessment growers whose sales information indicates they have purchased MON 88017 but may have purchased little or no refuge seed from Monsanto, licensees, or affiliated companies.

20) Monsanto 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) Annually, Monsanto will refine the on-farm assessment program for MON 88017 to reflect the adoption rate and level of refuge compliance for MON 88017.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

22) Monsanto 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. 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 (2) years by Monsanto, a seed supplier, or a third-party assessor, after completing the assessment process.
- ii. Monsanto will conduct follow-up checks on growers found to be significantly out of compliance within three (3) 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 MON 88017 within a 5-year period will be denied access to Monsanto's *Bt* corn products the next year.

**e. Insect Resistance Monitoring and Remedial Action Plan for MON 88017**

EPA is imposing the following conditions for the Cry3Bb1 toxin expressed in MON 88017:

- 1) Monsanto must monitor for Cry3Bb1 resistance and/or trends in increased tolerance for corn rootworm. Sampling should be focused in those areas in which there is the highest risk of resistance development.
- 2) The resistance monitoring plan must include the following: baseline sensitivity data, sampling (number of locations, samples per locations), sampling methodology and life stage sampled, bioassay methodology, standardization procedures (including quality assurance/quality control provisions), detection technique and sensitivity, statistical analysis of the probability of detecting resistance, and a revised description of rootworm damage guidelines.
- 3) Monsanto must develop a functional diagnostic assay for corn rootworm resistance monitoring to detect potentially resistant individuals and incorporate this assay into the annual resistance monitoring program by the 2011 season, with reporting in 2012. As part of this effort, Monsanto must investigate the feasibility of using the Sublethal Seedling Assay<sup>1</sup> as a diagnostic assay. A report of Monsanto's progress towards this requirement must be submitted to EPA within six (6) months from the date of this amended registration.

---

<sup>1</sup> Nowatzki T, Lefko SA, Binning RR, Thompson SD, Spencer TA, Siegfried BD. 2008. Validation of a novel resistance monitoring technique for corn rootworm (Coleoptera: Chrysomelidae) and event DAS-59122-7 maize. *J. Appl. Entomol.* 132:177-188.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

- 4) Monsanto must develop a proactive resistance monitoring program for northern corn rootworm (*Diabrotica barberi*) by the 2012 season, with reporting in 2013. This program should include a proposal for annual sampling and testing of northern corn rootworm susceptibility to Cry3Bb1. As part of the effort, Monsanto may need to investigate novel techniques for rearing and conducting bioassays with northern corn rootworm. A report on Monsanto's progress towards this requirement must be submitted within one (1) year from the date of this amended registration.
- 5) Monsanto must submit revised corn rootworm damage guidelines (to characterize unexpected pest damage) that take into consideration the comments and recommendations from EPA's June 30, 2010 review of the rootworm resistance monitoring program for Cry3Bb1 within six (6) months from the date of this amended registration.
- 6) Monsanto must follow-up on grower, extension specialist, or consultant reports of unexpected damage or control failures for corn rootworm.
- 7) Monsanto must provide EPA with a resistance monitoring report on or before August 31<sup>st</sup> of each year, reporting on populations collected the previous year.
- 8) The current remedial action plan approved for Cry3Bb1 must be used for corn rootworm suspected and confirmed resistance in MON 88017. If corn rootworm resistance is confirmed, all acres of MON 88017 and refuges must be treated with insecticides targeted at corn rootworm adults and larvae.

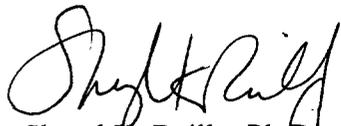
**f. Annual Reporting Requirements for MON 88017**

- 1) Annual Sales: reported and summed by state (county level data available by request), on or before January 31<sup>st</sup> of each year.
- 2) Grower Agreement Results: number of units of MON 88017 seeds sold or shipped and not returned, and the number of such units that were sold to persons who have signed grower agreements, on or before January 31<sup>st</sup> of each year.
- 3) Grower Education: substantive changes to the education program completed during the previous year, on or before January 31<sup>st</sup> of each year.
- 4) Compliance Assurance Program: compliance assurance program activities and results for the previous year and plans for the compliance assurance program during the current year, on or before January 31<sup>st</sup> of each year.
- 5) Compliance Assurance Program Survey Results: survey results for the previous year and plans for the current year, on or before January 31<sup>st</sup> of each year.
- 6) Insect Resistance Monitoring Results: results of monitoring and investigations of damage reports, on or before August 31<sup>st</sup> of each year.

Dr. Russell P. Schneider  
EPA Registration No. 524-551

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

Sincerely,



Sheryl K. Reilly, Ph.D., Chief  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)

Enclosure (1):  
-Accepted MON 88017 Label

# MON 88017

[Alternate brand name: YieldGard VT Rootworm/RR2®]

Rootworm-Protected Corn Seed  
(OECD Unique Identifier: MON-88017-3)

This product is effective in controlling damage caused by corn rootworm larval feeding on corn roots.

**Active Ingredient:**

*Bacillus thuringiensis* Cry3Bb1 protein and the genetic material necessary for its production (Vector PV-ZMIR39) in event MON 88017 corn (OECD Unique Identifier: MON-88017-3)..... ≤ 0.013%\*

**Other Ingredient:**

Substance produced by a marker gene and the genetic material necessary for its production (Vector PV-ZMIR39) in event MON 88017 corn (OECD Unique Identifier: MON-88017-3)..... ≤ 0.0069%\*

\*Percentage (wt/wt) on a dry weight basis whole plant (forage).

KEEP OUT OF REACH OF CHILDREN

**CAUTION**  
NET CONTENTS \_\_\_\_\_

EPA Registration No. 524-551

EPA Establishment No. 524-MO-002

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

**ACCEPTED**

SEP 29 2010

Under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-551

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with this labeling. The following information regarding commercial production must be included in the Technology Use Guide and/or IRM Grower Guide.

The subject registration will automatically expire on midnight September 30, 2015.

This plant-incorporated protectant (PIP) 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.

MON 88017 can be used for breeding and testing purposes to produce MON 89034 × MON 88017 sweet corn seed.

**INSECT RESISTANCE MANAGEMENT**

**Refuge Requirements for MON 88017 Field Corn**

Growers of MON 88017 field corn must adhere to the following refuge requirements. Growers must plant a structured refuge of at least 20% non-corn rootworm protected corn.

Refuge planting options include the following: adjacent blocks, perimeter strips or in-field strips. If blocks are implemented, they must be adjacent (e.g., across the road) to the MON 88017 field. If perimeter or in-field strips are implemented, the strips must be at least 4 consecutive rows wide.

The refuge and MON 88017 acres should be managed under comparable agronomic regimes. If the refuge is planted in a field that is in a crop rotation system, then MON 88017 must also be planted in a field that is in a crop rotation system. If the refuge is planted on continuous corn, then the MON 88017 field may be planted on either continuous corn or in a field that is in a crop rotation system.

Growers have the option of applying conventional insecticides to the corn refuge for control of corn rootworm larvae and other soil pests. The corn refuge can be treated with a non-*Bacillus thuringiensis* (*B.t*) insecticide to control late season pests such as corn borer or corn rootworm adults. However, if growers opt to treat the refuge while adult corn rootworms are present, then the MON 88017 acres must be treated in a like manner.

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.

### Post-Harvest Requirements for MON 88017 Sweet Corn

For MON 88017 sweet corn, growers are required to destroy any MON 88017 sweet corn stalks that remain in the field following harvest via rotary mowing, discing, or plow-down within thirty (30) days of harvest.

### CORN INSECTS CONTROLLED OR SUPPRESSED

This corn has been transformed using biotechnology to produce the *B.t.* protein, Cry3Bb1, for control or suppression of the following coleopteran insects:

Western corn rootworm (*Diabrotica virgifera virgifera*)

Northern corn rootworm (*Diabrotica barberi*)

Mexican corn rootworm (*Diabrotica virgifera zea*)

---

MON 88017 is a product of Monsanto's research program offering unique genetic characteristics for specific grower needs and may be protected by one or more of the following U.S. Patents: 5322938; 5352605; 5424412; 5554798; 5641876; 5717084; 5728925; 6025545; 6063597; 6083878; 7544862; RE39247.