Plant-Incorporated Protectant Label

SmartStax® PRO Enlist™ Refuge Advanced® €
(Alternate Brand Name: SmartStax® PRO Refuge Advanced® €)
(Alternate Brand Name: MON 89034 × TC1507 × MON 87411 × DAS-59122-7
Insect-Protected, Herbicide-Tolerant Corn with interspersed refuge)
(OECD Unique Identifier: MON-89034-3 × DAS-01507-1 × MON-87411-9 × DAS-59122-7)

(Alternate Brand Name: MON 87427 × MON 89034 × TC1507 × MON 87411 × DAS-59122-7
Insect-Protected, Herbicide-Tolerant Corn with interspersed refuge)
(OECD Unique Identifier: MON-87427-7 × MON-89034-3 × DAS-01507-1 × MON-87411-9 × DAS-59122-7)

(Alternate Brand Name: MON 87427 × MON 89034 × TC1507 × MON 87411 × DAS-59122-7 × DAS-40278-9
Insect-Protected, Herbicide-Tolerant Corn with interspersed refuge)
(OECD Unique Identifier: MON-87427-7 × MON-89034-3 × DAS-01507-1 × MON-87411-9 × DAS-59122-7 ×
DAS-40278-9)

Active Ingredients:

dsRNA transcript comprising a DvSnf7 inverted repeat sequence derived from Diabrotica virgifera virgifera, and
the genetic material necessary (vector PV-ZMIR10871) for its production in corn event MON 87411 (OECD Unique
Identifier MON-87411-9) .......................................................... ≤ 0.00000044%*  

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-89034-3) .......................... ≤ 0.0088%*  

Bacillus thuringiensis Cry2Ab2 protein and the genetic material (vector PV-ZMIR245) necessary for its production
in corn event MON 89034 (OECD Unique Identifier: MON-89034-3) .......................... ≤ 0.0048%*  

Bacillus thuringiensis Cry1F protein and the genetic material (vector PHP8999) necessary for its production in corn
event TC1507 (OECD Unique Identifier: DAS-01507-1) .......................................................... ≤ 0.00096%*  

Bacillus thuringiensis Cry3Bb1 protein and the genetic material (vector PV-ZMIR10871) necessary for its
production in corn event MON 87411 (OECD Unique Identifier: MON-87411-9) ................... ≤ 0.0041%*  

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) ........................................ ≤ 0.012%*  

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) ........................................ ≤ 0.0026%*  

Other Ingredients:
CP4 EPSPS protein (5-enolpyruvylshikimate-3-phosphate synthase) and the genetic material (vector PV-
ZMIR10871) necessary for its production in corn event MON 87411 ........................................ ≤ 0.036%*  

The marker protein, PAT (phosphinothricin acetyl transferase) and the genetic material (vectors PHP17662 and
PHP8999) necessary for its production in corn events TC1507 and DAS-59122-7 ........................ ≤ 0.0001%*  

*Maximum percent (%) dry weight basis for whole plant (forage)

‡ SmartStax® PRO Enlist™ Refuge Advanced® and SmartStax® PRO Refuge Advanced® seed with this refuge
configuration contains 95% MON 89034 × TC1507 × MON 88017 × DAS-59122-7 mixed with at least 5% non-Bt
corn within a single lot of seed.
KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration No. 62719-707

EPA Establishment No. 62719-IN-1

Dow AgroSciences LLC
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DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product must be used as specified in the terms and conditions of the registration.

This Plant- Incorporated Protectant (PIP) may be combined or produced 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.

SmartStax® PRO Enlist™ Refuge Advanced® corn blend protects corn crops from leaf, stalk, and ear damage caused by lepidopteran corn pests listed on this label and root damage caused by corn rootworm larvae listed on this label. In order to minimize the risk of these pests developing resistance to SmartStax® PRO Enlist™ Refuge Advanced® corn blend, an insect resistance management plan must be implemented as defined in the registration terms and conditions.

Grower agreements will specify that growers must adhere to the refuge requirements that will be described on the bag or bag/tag for SmartStax® PRO Enlist™ Refuge Advanced® corn blend or other applicable product use documents.

Sales of corn hybrids that contain Dow AgroSciences’s Bt corn plant-incorporated pesticide(s) must be accompanied by either an IRM/Grower Guide or information on the bag or bag-tag, 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.

Corn seed bags or bag tags for products containing SmartStax® PRO Enlist™ Refuge Advanced® corn blend must include the refuge size requirement in text and graphical format.

INSECT RESISTANCE MANAGEMENT

Growers are instructed to read information on insect resistance management in the bag and/or bag-tag.

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.

SmartStax® multi-event technology developed by Dow AgroSciences LLC and Monsanto
SmartStax® is a trademark of Monsanto Technology LLC
Enlist™ is a trademark of Dow AgroSciences LLC
Refuge Advanced® is a registered trademark of Dow AgroSciences LLC
The seed producer must ensure a minimum of 5% non-PIP refuge seed is included with SmartStax®PRO Enlist™ in each lot of seed corn. The refuge seed in the seed mixture may not be treated with seed-applied insecticides for corn rootworm (CRW) control unless the SmartStax®PRO Enlist™ seed in the seed mixture receives the same treatment.

The IRM/Grower Guide for SmartStax®PRO Enlist™ Refuge Advanced® corn blend or comparable information presented on the product bag or bag-tag, must contain the following information:

This product is a seed mixture containing SmartStax®PRO Enlist™ and a minimum of 5% non-Bt seed that when planted creates an interspersed refuge within the field. There are no requirements for a separate structured refuge for SmartStax®PRO Enlist™ Refuge Advanced® corn blend when planted in the U.S. corn-growing region, including Alaska and Hawaii, because the refuge seed is contained within the bag/container.

The interspersed refuge can only be used by planting seed corn specifically generated by qualified seed producers/conditioners licensed by the registrant. Insecticidal treatments labeled for adult CRW control are discouraged during the time of adult CRW emergence.

The seed mix refuge option for SmartStax®PRO Enlist™ Refuge Advanced® corn blend satisfies the refuge requirements in all regions other than in the cotton-growing region where corn earworm is a significant pest as defined below.

Additional refuge requirements in the cotton-growing region where corn earworm is a significant pest
In the cotton-growing region where corn earworm is a significant pest, as defined below, SmartStax®PRO Enlist™ Refuge Advanced® corn blend requires the planting of an additional 20% structured refuge (i.e. 20 acres of non-Bt corn for every 80 acres of SmartStax®PRO Enlist™ Refuge Advanced® corn blend planted).

The 20% 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 the SmartStax®PRO Enlist™ Refuge Advanced® corn blend 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. The structured refuge may be planted as an in-field or adjacent (e.g., across the road) refuge or planted as a separate block that is within 1/2 mile of the SmartStax®PRO Enlist™ Refuge Advanced® corn blend field. In-field refuge options include blocks, 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®PRO Enlist™ Refuge Advanced® corn blend 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).

The cotton-growing region requiring the additional 20% refuge consists of the following states: Alabama, Arkansas, Georgia, Florida, Louisiana, North Carolina, Mississippi, South Carolina, Oklahoma (only the counties of Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita), Tennessee (only the counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton), Texas (except the counties of Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltree, Roberts, and Sherman), Virginia (only the counties of Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton, Southampton, Suffolk City, Surrey, and Sussex) and Missouri (only the counties of Dunklin, New Madrid, Pemiscot, Scott, and Stoddard).
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

EPA Accepted: 6/8/2017