This 2020 Product Use Guide provides technical information about Corteva Agriscience™ corn products and sets forth requirements and guidelines for the use of these products. Please read all of the information pertaining to the technology you will be using, including stewardship and related information.

This technical guide is not a pesticide product label. It is intended to provide additional information and to highlight product-specific stewardship requirements, as each may be amended from time to time by Corteva Agriscience. To help enable grower success and protect Corteva technologies, growers must agree and understand the Corteva Agriscience Technology Use Agreement (TUA) at www.agcelerate.com, which may be amended from time to time. Signing the TUA permits access to the Corteva Agriscience Technology Use Agreement. If you have any questions, contact your sales professional.

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If you have any questions, contact your sales professional.

Stewardship Overview

A Message About Stewardship

Corteva Agriscience™ is committed to the responsible management of all its seed products. Proper stewardship of Corteva Agriscience products is beneficial to growers and other stakeholders, including enabling continued grower access to Corteva leading germplasm and biotechnology traits in seed products and helping to enhance grower productivity and profitability. Proper stewardship also promotes responsible use of these products, such as mitigating potential resistance development to enhance long-term durability of Corteva Agriscience technologies. When combined with best management practices, Corteva Agriscience products provide options for growers and their customers.

By accepting delivery of any Corteva Agriscience brand product, growers are contractually obligated to comply with all laws, regulations, and Corteva Agriscience stewardship requirements described in Product Use Guides(s) and any product-specific stewardship requirements, as each may be amended from time to time by Corteva Agriscience. To help enable grower success and protect Corteva technologies, growers must agree and understand the stewardship requirements, such as potential grain use restrictions, including but not limited to:

- Sign and comply with the Corteva Agriscience™ Technology Use Agreement (TUA) at www.agcelerate.com, which may be amended from time to time. Signing the TUA permits access to the Corteva Agriscience germplasm and the biotech trait technologies in Corteva Agriscience seed products.
- Follow Stewardship requirements detailed in Product Use Guide(s), www.corteva.us/resources/trad-stewardship.html and on product-specific labels.
- Read and follow all seed, pesticide, or other product labels and information.
- Implement appropriate product-specific Insect Resistance Management (IRM) and/or Herbicide Resistance Management (HRM) practices, as required by Corteva Agriscience and the U.S. Environmental Protection Agency (EPA). Following IRM and HRM requirements helps limit development of insect and herbicide resistance and helps to maintain the long-term durability of these technologies.
- Use of Corteva Agriscience seed products solely for producing a single commercial crop encourages the development of better, higher-yielding germplasm and additional technologies and innovations, further improving agricultural productivity.
- Growers are required to discuss trait acceptance and grain purchasing policy with the grain purchaser or grain handler prior to the delivery and sale of crop products (e.g., grain or other plant material containing biotech traits) and only deliver grain to a purchaser or grain handler that agrees to grain and by-products will be marketed in markets where such products are authorized for the specific use. For more detailed information on the status of a trait or stack, please visit www.biotradestatus.com
- Follow any additional stewardship requirements that Corteva Agriscience deems necessary for a particular product (e.g., grain or feed use or geographical planting restrictions, or use of an authorized herbicide).
- Any forward-looking statements made by Corteva Agriscience related to regulatory approval timelines by their nature address matters that are, to different degrees, uncertain. Any forward-looking statements of anticipated regulatory authorization timelines are not guarantees of government agency action and are based on certain assumptions and expectations of future events that may not be realized.
- Contact your local sales professional for more information.

By using Corteva Agriscience products, growers further understand and agree that (1) all crops and materials containing biotech traits (e.g., grain, and/or byproducts) may only be (a) exported, transferred or moved to or used, processed, or transferred in jurisdictions where all necessary regulatory authorizations have been granted for those crops and materials for such activities, (2) it may be unlawful to export, transfer, or move materials containing biotech traits across borders into jurisdictions where their import and use is not authorized, including through a third party, and (3) products authorized in the United States may or may not be authorized in all global markets; therefore, the combination of these traits and the grain and certain byproducts (including oil, dried distillers grains, cobs, and husks) from these products may not be authorized in some markets.

Excellence Through Stewardship

Our Commitment to Excellence Through Stewardship

Corteva Agriscience™ is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these guidelines, our product launch process for responsible launches of new products includes a long-standing process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and end-users must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer’s acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit www.biotradestatus.com.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.
Coexistence

For decades, multiple agricultural systems have successfully coexisted in the United States and around the world, from initial production through supply chains to the ultimate end users. Over time, management practices to facilitate these different agricultural systems have developed and have been continuously improved so that high purity and high quality seed and grain is available to help growers, handlers, and end-users maximize opportunities and take full advantage of the wide variety of technologies available to each. One example of successful coexistence is the production of similar commodities in close proximity, such as field corn, sweet corn, white corn, and popcorn. Coexistence strategies should be designed to meet market requirements using science-based industry standards and management practices, and should be flexible to facilitate diverse options and choices for growers and the food and feed supply chain. This flexibility also should include the ability of coexistence strategies to be modified as changes in products, markets, or practices take place. The on-going success of coexistence has depended upon cooperation, communication, flexibility, and mutual respect for each cropping system among the entire value chain. Over the years, growers have adapted to changes and innovations in agriculture by using new farm management practices, new technologies, and other appropriate practices and can continue to do so into the future.

It is therefore incumbent on all growers to consider and implement management practices to satisfy the relevant marketing and stewardship practices required by the desired end market. By choosing to grow any crop, growers are inherently agreeing to use practices appropriate to ensure the practices required by the desired end market. By choosing to grow any crop, management practices to satisfy the relevant marketing and stewardship practices help to minimize the potential for adverse effects on producers and the environment, including pollinators, which may be present at the time of planting.

Additional best management practices can be found: http://seed-treatment-guide.com/
For a short video on treated seed stewardship, click here or type into your web browser the following: https://www.youtube.com/watch?v=pLizLUnKmXw
For more information on pollinator health visit: http://honeybeehealthcoalition.org

For detailed information about stewardship of treated seed, check out www.seed-treatment-guide.com

Seed Treatment Stewardship

Seed treatments, including fungicides, insecticides, nematocides, and amendments, play a critical role in agriculture and the production of a healthy crop. In addition to helping manage against early season pests and diseases, they serve as a viable alternative to foliar and soil applications.

Seed treatment management and responsible stewardship play a vital role in sustaining our environment while maximizing crop health. Responsible stewardship practices help maintain seed and seed treatment integrity, which keeps the active ingredient on the seed to achieve the maximum crop health benefit for the investment. In addition, these practices help minimize the potential for adverse effects on producers and the environment, including pollinators, which may be present at the time of planting.

Steps for Stewardship of Treated Seed

Follow Directions – Follow directions on treated seed container labeling for handling, storage, planting and disposal practices.

Minimize Dust – Use advanced seed flow lubricants that minimize dust.

Eliminate Weeds – Eliminate flowering plants and weeds in and around the field prior to planting.

Clean and Remove – Completely remove all treated seed left in containers and equipment used to handle harvested grain, and dispose of it properly. Keep all treated seed out of the commodity grain channels.

Bee Aware – At planting, be aware of honey bees and hives located near the field, and communicate with beekeepers when possible.

What options exist related to staggering planting times to help temporarily isolate a given crop from the potential of unintended outcrossing?

What are cleaning and handling options for a particular crop that could help to minimize the potential for inadvertent corning during planting, harvesting or cleaning activities, considering the use of plants, combines, seed storage bins, seed hopper/boxes, transportation vehicles, and other equipment pre- and post-harvest; and

Understanding characteristics of applied technologies or pest management tools and the potential impact to different types of crops planted in the vicinity.

In today’s agricultural marketplace, growers share common goals of increasing productivity and profitability, and through planning and proactive management measures, coexistence can help all growers meet their productivity goals and stewardship responsibilities while respecting their neighboring farming operations.
Integrated Pest Management

As a grower, integrated pest management (IPM) provides you the opportunity to tailor how you manage weeds, insects, and diseases in your fields. IPM integrates responsible use of traits, crop protection products, and cultural management practices to:
- Prevent the buildup of pests through starting with a clean field and rotating crops and traits.
- Use seed products, planting technology, and seeding rates that are appropriate for given crops in a specific geographic area.
- Scout for pests periodically throughout the growing season to determine if treatment is necessary.
- Integrate different control methods, including cultural, biological, and chemical practices.
- Use integrated management practices that are appropriate for the available resources and management constraints.
- Minimize over-wintering of pests through soil management practices.
- Use seed products, planting technology, and seedling rates that are appropriate for the available resources and management constraints.
- Use herbicides at their proper rates at the appropriate times and following all label directions.
- Control weeds that are resistant to herbicides before they can set seed and even otherwise reproduce.

Weed Management

Herbicide tolerance technology provides convenient, effective, and economical weed control in crops. However, intensive long-term use of any single herbicide mode of action may contribute to the development of weeds resistant to that mode of action. Planting crops that use multiple herbicide modes of action as part of an IPM program can provide consistent, effective weed control while reducing the potential for resistance. Talk to your local sales professional about the herbicide tolerance in your crops.

Enlist Dup® and Enlist One® herbicides are not registered for sale or use in all states or counties. Contact your state pesticide regulatory agency to determine if a product is registered for use in your area. Enlist Dup® and Enlist One® are the only 2,4-D products authorized for use with Enlist crops. Consult Enlist herbicide labels for weed species controlled. Additional product-specific validated use recommendation for Enlist Dup® and Enlist One® herbicides, including the "Product Use Guide," can be found at www.Enlist.com. Always read and follow label directions.

Herbicide Resistant Weeds

Growth awareness and proactive management of herbicide resistant weeds are an essential part of a successful weed control program. Suspected herbicide resistance is defined as the situation where the following three indicators occur at a site or location:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
- A spreading patch of non- controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

With confirmed herbicide resistance, other weed management practices should be employed to control weeds. The development of herbicide-resistant weeds is a serious problem and can be a significant challenge to the management of weeds in crops. The use of approved herbicides, including Enlist Dup® and Enlist One® herbicides, can be found at www.Enlist.com. Always read and follow label directions.

Herbicide Groups

The Weed Science Society of America categorizes herbicides into different groups based on mode of action. If a given weed population has plants resistant to a herbicide in one group, that weed population may not be able to be controlled with other herbicides from that same group. However, that weed population may be able to be managed with a different herbicide from a different herbicide group, whether alone or in combination with a herbicide from the same group. Enlist Dup® and Enlist One® herbicides, including the "Product Use Guide," can be found at www.Enlist.com. Always read and follow label directions.

Glyphosate Endangered Species Initiative Requirement

Before making an application of any glyphosate-based herbicide product, licensed growers of crops containing Roundup®Ready Technology must access the website pre-serve.org to determine whether any mitigation requirements apply to the application to those crops, and must follow all applicable requirements. The mitigation measures described on the website are appropriate for all applications of any glyphosate-based herbicide to all crop groups. Growers making ground or air applications to broad-leaved weeds in a stand with a use rate of less than 8 lbs ai/acre, respectively, or glyphosate applied in Alaska, Oklahoma, or South Dakota are not required to access the website. If a grower does not have web access, the seed dealer can access the website on behalf of the grower to determine the applicable requirements, or the grower can call 1-800-332-3111 for assistance.

Monitoring Insect Pests

It is important to carefully monitor all fields for pest damage and the potential to set seed. If surviving weeds are found, control those weeds before they can set seed and otherwise reproduce.

Corvete Agriscience™ supports the Take Action effort. Take Action is an industry-wide partnership that uses technology to help manage resistant weeds. To find out more about how you can take action, visit www.takeaction.com, or contact your local extension office.

Corteva Agriscience™ does not make any representations, warranties or recommendations concerning the use of products manufactured or marketed by other companies including but not limited to those that are labeled for use in crops containing Corteva technology. Corteva Agriscience™ and its affiliated companies are not responsible for any misuse or misapplication of products, including pesticides, by a grower.

Additional stewardship information may be found at www.corteva.com or consult your local sales professional. You may also contact Corteva Agriscience at: 877-4-TRAITS (877-487-2847).

Corteva Agriscience™ and university research suggests that continuous, unrestricted use of the same corn rootworm Bt technology can lead to decreased corn rootworm susceptibility to that technology, and may result in reduced product efficacy against these insects. To help maintain the efficacy of Bt corn rootworm products, it is essential to develop a multi-faceted rootworm management program. Your sales professional or your local Extension professional can assist you in developing best management practices for your farming operation. Please contact your sales professional or consult with your local University Extension for more information regarding insect resistance management guidelines, best management practices and to understand whether there has been insect resistance documented in your area. Please refer to the next page for corn rootworm best management practices.

The use of applied insecticides (SaI)s with corn rootworm Bt corn is not recommended for corn rootworm control except under limited circumstances (such as limited use in tobacco or high-value crops, or other local experts). SAs should not be necessary for corn rootworm control with pyramided corn rootworm trait crops (BD).
To effectively manage corn rootworm (CRW), implement a multi-year plan that includes a variety of tactics.

**CROP ROTATION**
- Did you plant the same CRW traits for consecutive years in the same fields?
- Did you notice large populations of CRW beetles?
- Did you observe root injury from CRW larvae?
- Are your fields planted to continuous corn?

**PRODUCTS WITH MULTIPLE CRW B.T. TRAITS**

**SEED, SOIL OR FOLIAR-APPLIED INSECTICIDES**

**ASSESS RISK**

**CORN ROOTWORM BEST MANAGEMENT PRACTICES**

**Plant the Required Refuge**

**Rotate Crops**
- Rotate at least every 3rd year if any of the following:
  - In long-term continuous corn system
  - CRW populations are high
  - Experiencing problems with CRW trait performance
- In areas where rotational-resistant CRW variants exist, such as extended diapause eggs or soybean, CRW management options may be needed the following year

**Rotate Traits**
- Use B.t. hybrids with multiple modes of action for CRW control whenever possible
- If using a hybrid with multiple modes of action for CRW control is not an option, rotate to a different B.t.-treated hybrid that controls CRW
- Use a non-B.t.-treated hybrid with insecticide

**Manage CRW with Insecticides**

**ADULT CRW MANAGEMENT CONSIDERATIONS**
- Scout fields for CRW adults during silking stage (typically July and August) as adult CRW beetles feed on corn silks and may reduce yield
- Foliar sprays may be an option if CRW beetle populations reach an economic threshold for damage (=1 beetle per plant)\(^1\)
- Follow university extension service or local crop consultant recommendations for products, rates, and proper timing of adult spray applications for reducing CRW beetle populations
- Multiple sprays may be necessary

**LARVAL CRW MANAGEMENT CONSIDERATIONS**
- Use B.t. hybrids with multiple modes of action for CRW control whenever possible
- If using a hybrid with multiple modes of action for CRW control is not an option, rotate to a different B.t.-treated hybrid that controls CRW
- Use a non-B.t.-treated hybrid with insecticide

Stewardship Through Insect Resistance Management

Insect Resistance Management (IRM) for Bt Corn

Following an insect resistance management (IRM) program is an essential part of good stewardship. The aim of an IRM program is to reduce the probability of target insects developing increased tolerance to the insecticidal Bt proteins, thus maximizing the longevity and effectiveness of these valuable traits in an environmentally-conscious way. Sustainable preservation of this technology places individual responsibility on everyone in the seed distribution system, from the seed supplier to the grower planting the seed. Additionally, IRM is a legal obligation as requirements have been incorporated into the registrations granted by the EPA for all Bt corn products.

This Product Use Guide (PUG) contains important information on how to implement a proper IRM plan. If you have questions after reviewing this document, or if you wish to register a tip or complaint about a grower who may not be following the IRM refuge requirements, please contact your sales professional.

A decrease in susceptibility or field-evolved resistance of some insect populations to certain technology traits in corn has been observed in different geographies which may result in lower than expected efficacy. To help extend durability of this technology, Corteva Agriscience™ recommends you implement Integrated Pest Management (IPM) practices such as crop rotation, cultural and biological control tactics (including rotating sources of Bt-protected corn traits), pest scouting, and appropriate use of pest thresholds when employing management practices such as insecticide application. You must also plant the required refuge when using this technology. Please contact your sales Representative or consult with your local University Extension for more information regarding insect resistance management guidelines, best management practices and to understand whether there has been a shift in susceptibility or insect resistance documented in your area.

IRM Requirements

IRM programs address: (1) the amount of refuge, (2) the required proximity of hybrids with the Bt traits to the refuge, (3) the use of insecticides in the refuge, and (4) the design and management of the refuge.

What is a Refuge?

A refuge is a block or strip of corn that does not contain a Bt trait for controlling corn pests. The purpose of the refuge is to maintain a population of corn pests that is susceptible to Bt proteins. Potentially-resistant insects emerging from Bt fields can mate with susceptible insects from the refuge resulting in Bt-susceptible offspring. Corteva Agriscience offers several refuge options including Enlist™ Corn, Roundup Ready® Corn 2, and Liberty Link® Corn.

There are two types of refuge for Corteva Agriscience brand products with the Bt trait: integrated and structured. Some Bt products have an integrated refuge with refuge seed blended in the bag, while other Bt products require a structured refuge. Where available, an integrated refuge product allows a grower to conveniently deploy the refuge for a field with a single planting of one product, ensuring compliance on those acres. A structured refuge requires a grower to plant a portion of a field with another product that does not contain the insect-control traits of the Bt product. Grower-blended seed mixtures are not approved for use with any Bt hybrids to satisfy grower refuge requirements. Refuge requirements vary by product type and EPA-designated non-cotton and southern corn/cotton growing regions, as detailed on the following page.

IRM Compliance Assurance Program (CAP)

Corteva Agriscience requires all growers purchasing hybrids with a Bt trait sign a Corteva Agriscience™ Technology Use Agreement. By signing, the grower agrees to implement an IRM program—including planting a corn refuge and following EPA-mandated use requirements—as outlined in the PUG. Failure to follow these IRM requirements can result in the grower losing access to structured refuge products.

The EPA requires Bt corn seed providers to conduct on-farm visits as part of a comprehensive Compliance Assurance Program (CAP) to assess whether growers are following the IRM requirements. These on-farm assessments are conducted by an independent third party and directed toward areas at high risk of insect resistance based on pest pressure, Bt corn market penetration, or insufficient refuge seed purchase.

The CAP also outlines consistent standards developed by the EPA and Bt corn registrants for responding to growers who have not followed the IRM requirements to bring them into full compliance. These responses include:

- Notifying the grower by letter of IRM compliance deviations.
- Conducting a compliance assistance visit with the grower prior to planting to assist the grower in planning and implementing a proper IRM program.
- Conducting a compliance assessment visit with the grower following the growing season to assess IRM compliance.
- Providing the grower additional IRM educational materials.
- A grower found with a second incident of non compliance with refuge requirements within a five-year period will be denied access the next year to the registrant’s structured refuge Bt corn products.

United States Refuge Size Requirements

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Structural Refuge Requirements

In non-cotton growing areas, the structural refuge requirements are 5% or 20% of corn acres planted for corn borer-protected products and 20% for corn rootworm-protected products. In cotton growing areas, the structural refuge requirements are 20% or 50% of corn acres planted for corn borer-protected products and 20% for corn rootworm-protected products.

Structured Refuge Planting Options for Above-Ground, Below-Ground, and Above+Below-Ground Products

A single-trait refuge is one that can be used for corn rootworms or corn borers, but not both. A common refuge is a single field that serves as a refuge for both corn borers and corn rootworms simultaneously. A separate refuge is a refuge designed exclusively for corn borers or exclusively for corn rootworms—are i.e., a stacked Bt product can require two separate refuges.

Select Similar Hybrid for Structured Refuge

One key to establishing an effective refuge is selecting an appropriate hybrid—one that is agronomically similar to the Bt hybrid. This helps ensure that the refuge hybrid has the same likelihood of attracting adult insects as the Bt field. The refuge hybrid should match the Bt hybrid in maturity, early vigor and plant height.

Refuge Management

Management practices in the refuge acres and Bt corn acres must be as similar as possible to promote parallel hybrid development.

- To be effective, the refuge must be the correct size and distance from the Bt field, and be planted with a similar hybrid under similar management practices.
- Plant the refuge at the same time as the Bt hybrid.
- Fertility programs, including starter and sidedress, should be similar.
- Use the same tillage system in the Bt field and the refuge. Different tillage operations may result in dissimilar residue levels on the soil surface. Soil temperature differences could then lead to dramatic early development differences between the Bt field and the refuge.
- Reducing inputs on the refuge or planting it on marginal land also decreases the effectiveness of the refuge.
- If the refuge is planted on rotated ground, the trait corn must also be planted on rotated ground. If the refuge is planted on continuous corn ground, the trait corn may be planted on either continuous corn ground or rotated ground. It is also recommended that growers planting continuous corn plant the refuge in the same location each year.
- Practice Integrated Pest Management (IPM) to preserve the natural enemies of corn borers, corn rootworms and other insect pests. Natural predators such as ground beetles and ants can help reduce corn rootworm larvae populations. Bt corn insect protection aids IPM because it affects only target insects and allows beneficial insects to thrive.
- Popcorn can be used as a refuge option, but sweet corn and/or silage corn cannot.

Field Monitoring

Monitoring Bt fields for insect resistance development is an integral part of an IRM plan. If resistant populations are detected early, alternative control measures can be quickly implemented to reduce the population and halt the spread of resistance. Because of its importance in maintaining the effectiveness of Bt technology, the EPA mandates active monitoring as a condition of registration of Bt products. Corteva Agriscience™ requires customers to monitor Bt fields for unexpected levels of insect damage and report any high level of suspected insect damage to a sales representative for further investigation. Acres planted with Bt hybrids should be correctly marked at planting to prevent confusion when monitoring.

Structured Refuge Configuration

Because Bt corn growers use different management practices, considerable flexibility is allowed in laying out the refuge. Several of these refuge patterns are described below.

Surveys indicate that most farmers plant the refuge within the Bt field. This closer proximity increases refuge effectiveness and maximizes Bt acreage in the field.
Calculating Structured Refuge

Refer to this diagram for the examples below.

A. Total Corn Acres
B. Refuge Acres
C. Bt Acres

% Percent of Required Refuge—5% 20% or 30%
Based on total corn acres

1Includes all corn acres that are infield or adjacent to each other and will be allocated to the Bt product and its associated refuge.

**THE CORRECT WAY TO CALCULATE**

Example shown is for a 20% refuge product.

**START** with the **TOTAL** number of corn acres you want to plant in an area.

**Multiply by the **PERCENT** of refuge required for the Bt trait.

This is your minimum **REFUGE ACRES**.

**Next, subtract your refuge acres from your total corn acres.**

This is your maximum **Bt ACRES**.

---

<table>
<thead>
<tr>
<th>Example</th>
<th>Your Field</th>
<th>Multiply the PERCENT of refuge required for the Bt trait.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 100</td>
<td>% 10%</td>
<td>= B 40</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Example</th>
<th>Your Field</th>
<th>Subtract your refuge acres from your total corn acres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 100</td>
<td>B 40</td>
<td>= C 160</td>
</tr>
</tbody>
</table>
Corn Technologies

Not all products described in this Product Use Guide are available in all Corteva Agriscience® brands. Refer to the Corn Insect Efficacy Ratings table on page 20 for additional information.

Corn products containing Optimum® AcreMax® Insect Protection provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, stalk borer, and corn earworm.

Corn products containing Optimum® AcreMax® Xtra Insect Protection provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, stalk borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm.

Corn products containing SmartStax® Refuge Advanced use multiple modes of action to protect corn from the broadest spectrum of above-and-below-ground corn insects. This version includes in-bag refuge which eliminates the need for separate, structured refuge in the Corn Belt.

Corn products containing Optimum® AcreMax® Insect Protection provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, stalk borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm.

Agrisure® RW trait. Hybrids that contain Optimum® Intrasect® Insect Protection provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm.

Corn products containing Optimum® AcreMax® LW Insect Protection provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm.

Corn products containing SmartStax® use multiple modes of action to protect corn from the broadest spectrum of above and below-ground corn insects. It offers reduced refuge requirements of only 5 percent in the Corn Belt. By allowing growers to plant 95 percent of their acres to high-yielding, insect-traited hybrids, SmartStax helps farmers maximize whole-farm yield potential.

Corn products containing Optimum® AcreMax® 1 Insect Protection technology provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, stalk borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm.

Corn products containing PowerCore® are a pyramid of Bt traits that combines three proteins to deliver broad spectrum protection against above-ground pests. This season-long insect control is specialized for areas with minimal rootworm pressure to protect your high-yielding corn crop. PowerCore® Enlist® hybrids are tolerant to 2,4-D and glyphosate. Enlist® One® herbicide, a straight-goods 2,4-D choline, and Enlist DU® herbicide, a combination of 2,4-D choline and glyphosate, are designed to be applied to crops with the Enlist trait. Enlist herbicides with Colex-D® technology provide exceptional weed control and on-target application. Additional product-specific stewardship requirements for Enlist crops can be found in the Enlist® Product Use Guide, at www.Enlist.com. Always read and follow label directions. Consult Enlist herbicide labels for weed species controlled.

PLEASE NOTE: Additional licensed products are offered in certain Corteva Agriscience® brands including AgriStar® GT Agrisure® GT20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, Agrisure® XQ20XQ, and Agrisure® XQ20XQ. Please refer to the manufacturer’s website at the website address www.agrinovationhomes.com for more details on these products.
## Corn Technology Refuge Requirements

<table>
<thead>
<tr>
<th>INTEGRATED REFUGE PRODUCTS</th>
<th>Blend Ratio</th>
<th>Insect Protection</th>
<th>Herbicide Traits</th>
<th>Add'l Refuge</th>
<th>Refuse Design</th>
<th>Add'l Refuge</th>
<th>Refuse Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>AcreMax</td>
<td>95/5</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>95/5</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>POWERCORE REFUGE ADVANCED</td>
<td>95/5</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>90/10</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>90/10</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>95/5</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>QROME</td>
<td>95/5</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>90/10</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>90/10</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
<tr>
<td>AcreMax</td>
<td>90/10</td>
<td>LL/RR2</td>
<td>0% None</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20%</td>
<td>None</td>
<td>20%</td>
</tr>
</tbody>
</table>

### STRUCTURED REFUGE PRODUCTS

<table>
<thead>
<tr>
<th>Insect Protection</th>
<th>Herbicide Traits</th>
<th>Corn Region</th>
<th>Cotton Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2/ENL</td>
<td>5%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>5%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>5%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>5%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>5%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>20% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
<tr>
<td>LL/RR2</td>
<td>20%</td>
<td>Within, adjacent, or up to a half mile</td>
<td>50% Within, adjacent, or up to a half mile</td>
</tr>
</tbody>
</table>

### Additional Refuge and Refuge Design

- **Above Ground Insect Protection**: Within or adjacent
- **Below Ground Insect Protection**: Within or adjacent
- **Above and Below Ground Insect Protection**: Within or adjacent
- **Herbicide**: LL/RR2
- **Insect Protection**: Enlist™
**Corn Insect Efficacy Ratings (as of August 2019)**

Efficacy levels based on Corteva Agriscience™ and/or independent university entomologist results against susceptible insect populations. Product responses can vary by location, pest population, environmental conditions, and agricultural practices.

Various factors, including pest pressure, reduced susceptibility, and insect resistance in some pest populations may affect efficacy of certain corn technology products in some regions. To help extend viability of these technologies, Corteva Agriscience recommends you implement Integrated Pest Management (IPM) practices such as crop rotation, cultural and biological control tactics, including rotating sources of Bt-protected corn traits, pest scouting, and appropriate use of pest thresholds when employing management practices such as insecticide applications.

You must also plant the required refuge when using these technologies. Please contact your sales professional or consult with your local university extension for more information regarding insect resistance management guidelines, pest management practices and to understand whether there has been a shift in susceptibility or insect resistance with certain pests documented in your area.

* Western bean cutworm has been removed from the Corteva Agriscience product use statement for several corn products that contain Herculex® I (Cry1F) but lack another mode of action for western bean cutworm due to a wide-spread decrease in susceptibility indicating the possibility of field-evolved resistance to Cry1F in most geographies.

<table>
<thead>
<tr>
<th>Corn Technology Traits</th>
<th>Insect Efficacy Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn Borer</td>
<td>Corn Earworm</td>
</tr>
<tr>
<td>INTEGRATED REFUGE PRODUCTS</td>
<td></td>
</tr>
<tr>
<td>Optimum® AcroMax® (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcroMax® Leptra® (Corn Borer/Corn Earworm)</td>
<td>C</td>
</tr>
<tr>
<td>PowerCore® Refuge Advanced® (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcroMax® TriSect® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcroMax® Xtra (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcroMax® Xtreme (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® Xtra (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® TriSect® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® Xtreme (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcreMax® 1 (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>SmartStax® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>STRUCTURED REFUGE PRODUCTS</td>
<td></td>
</tr>
<tr>
<td>Herculex® I (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>PowerCore® (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>PowerCore® Enlist™ (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® (Corn Borer)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Leptra® (Corn Borer/Corn Earworm)</td>
<td>C</td>
</tr>
<tr>
<td>Hercules® XTRA (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® TriSect® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® Xtra (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® TriSect® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® Intrasect® Xtreme (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>Optimum® AcroMax® 1 (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
<tr>
<td>SmartStax® (Corn Borer/Rootworm)</td>
<td>C</td>
</tr>
</tbody>
</table>

C = Controlled  S = Suppressed  Blank = Not labeled

All scores of integrated refuge products are based on the major component.
Product Use Statements

**Product**

**Product Use Statement**

This is a blend of 0% refuge seed and 99% seed containing the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; the Agrisure® RW trait that produces a Bacillus thuringiensis (Bt) Cry34Ab1 and Cry35Ab1 proteins; the Agrisure® Viptera® trait that produces a Bt Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; and also contains the Herculex® I Insect Resistance technology by Dow AgroSciences and Pioneer Hi-Bred. The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in Puerto Rico.

**Planting Restrictions**

- **CALIFORNIA RESTRICTION:** The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in certain California counties. Contact your sales professional for details.
- **PUERTO RICO RESTRICTION:** The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in Puerto Rico.

---

**Product**

**Product Use Statement**

This is a blend of 0% refuge seed and 99% seed containing the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure® Viptera® gene that produces a Bt Cry1F protein and also contains the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; and also contains the Herculex® I Insect Resistance technology by Dow AgroSciences and Pioneer Hi-Bred. The planting of Optimum AcreMax Insect Protection products is prohibited in Puerto Rico.

**Planting Restrictions**

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---

**Product**

**Product Use Statement**

This is a blend of 0% refuge seed and 99% seed containing the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure® Viptera® gene that produces a Bt Cry1F protein and also contains the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; and also contains the Herculex® I Insect Resistance technology by Dow AgroSciences and Pioneer Hi-Bred. The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in Puerto Rico.

**Planting Restrictions**

- **CALIFORNIA RESTRICTION:** The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in certain California counties. Contact your sales professional for details.
- **PUERTO RICO RESTRICTION:** The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in Puerto Rico.

---

**Product**

**Product Use Statement**

This is a blend of 0% refuge seed and 99% seed containing the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure® Viptera® gene that produces a Bt Cry1F protein and also contains the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; and also contains the Herculex® I Insect Resistance technology by Dow AgroSciences and Pioneer Hi-Bred. The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in Maine.

**Planting Restrictions**

- **CALIFORNIA RESTRICTION:** The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in certain California counties. Contact your sales professional for details.
- **PUERTO RICO RESTRICTION:** The planting of Optimum AcreMax Leptra Insect Protection products is prohibited in Puerto Rico.

---

**Product**

**Product Use Statement**

This is a blend of 0% refuge seed and 99% seed containing the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure® Viptera® gene that produces a Bt Cry1F protein and also contains the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein; and also contains the Herculex® I Insect Resistance technology by Dow AgroSciences and Pioneer Hi-Bred. The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in Puerto Rico.

**Planting Restrictions**

- **CALIFORNIA RESTRICTION:** The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in certain California counties. Contact your sales professional for details.
- **PUERTO RICO RESTRICTION:** The planting of Optimum AcreMax Xtra Insect Protection products is prohibited in Puerto Rico.
<table>
<thead>
<tr>
<th>Product Use Statement</th>
<th>Planting Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CALIFORNIA RESTRICTION:</strong> The planting of hybrids with the HR1 trait is prohibited in certain California counties. Contact your sales professional for details.</td>
<td><strong>PUERTO RICAN RESTRICTION:</strong> The sales, distribution, and planting of Hybrid 611970 and 641092 hybrids are prohibited in Puerto Rico.</td>
</tr>
</tbody>
</table>

**PRODUCT USE STATEMENT:**
- The Herculex® I Insect Resistance technology incorporated into these seeds is protected under one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). Contact your sales professional for details.

**FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.**

**PATENT STATEMENT:** The Herculex® I Insect Resistance technology incorporated into these seeds is protected under one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). The use of seed from such a crop in the progeny thereof for propagation, seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited.

**FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.**

**PRODUCT USE STATEMENT:** The Herculex® I Insect Resistance technology incorporated into these seeds is protected under one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). Contact your sales professional for details.

**FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.**

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**FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.**

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**FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.**

**PRODUCT USE STATEMENT:** The Herculex® I Insect Resistance technology incorporated into these seeds is protected under one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). Contact your sales professional for details.
Product Use Statements

This seed contains the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure Viptera® gene that produces a Bt Cry34Ab1 and Cry35Ab1 proteins that provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm. Product responses may vary by location, pest population, environmental conditions, and agricultural practices. These proteins and the genetic material necessary for their production in corn are registered under EPA Reg. No. 29964-13-2.

**CALIFORNIA RESTRICTION:** The planting of Optimum Intrasect Insect Protection hybrids is prohibited in certain California counties. Contact your sales professional for details.

**PUERTO RICO RESTRICTION:** The sales, distribution, and planting of Optimum Intrasect Insect Protection hybrids is prohibited in Puerto Rico.

This seed contains the Herculex® XTRA Insect Protection gene that produce a Bacillus thuringiensis (Bt) Cry1F protein and the Bt Cry3A protein that provide protection on suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm. Product responses may vary by location, pest population, environmental conditions, and agricultural practices. These proteins and the genetic material necessary for their production in corn are registered under EPA Reg. No. 29964-13.

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This seed contains the Herculex® I Insect Protection gene that produces a Bacillus thuringiensis (Bt) Cry1F protein and the YIELDGARD® Corn Borer gene that produces a Bt Cry1Ab protein, and the Agrisure RW gene that produces a Bt mCry3A protein that provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm. Product responses may vary by location, pest population, environmental conditions, and agricultural practices. These proteins and the genetic material necessary for their production in corn are registered under EPA Reg. No. 29964-14.

**CALIFORNIA RESTRICTION:** The planting of Optimum Trisect Insect Protection hybrids is prohibited in certain California counties. Contact your sales professional for details.

**PUERTO RICO RESTRICTION:** The sales, distribution, and planting of Optimum Trisect Insect Protection hybrids is prohibited in Puerto Rico.

This seed contains the Agrisure Viptera® genotypes of Agrisure Viptera® gene that produces a Bt Cry3Ab1 protein that provide protection on suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm. Product responses may vary by location, pest population, environmental conditions, and agricultural practices. These proteins and the genetic material necessary for their production in corn are registered under EPA Reg. No. 29964-19.

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This seed contains the Agrisure® RW gene that produces a Bt mCry3A protein that provide protection or suppression against susceptible European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, sugarcane borer, and corn earworm; and also provide protection from larval injury caused by susceptible western corn rootworm, northern corn rootworm, and Mexican corn rootworm. Product responses may vary by location, pest population, environmental conditions, and agricultural practices. These proteins and the genetic material necessary for their production in corn are registered under EPA Reg. No. 29964-6.

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**PUERTO RICO RESTRICTION:** The sales, distribution, and planting of Optimum Trisect Insect Protection hybrids is prohibited in Puerto Rico.

This seed contains the Herculex® and Herculex RW Insect Resistance technologies incorporated into these seeds are protected under one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). The use of seed from such a crop or the progeny thereof for propagation or seed multiplication is strictly prohibited.

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**PUERTO RICO RESTRICTION:** The sales, distribution, and planting of Optimum Intrasect Insect Protection hybrids is prohibited in Puerto Rico.

This seed contains the Herculex® I Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred. "Heraclex" and the HX logo are registered trademarks of Dow AgroSciences LLC.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Product Use Statement</th>
<th>Planting Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herculex® Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred.</td>
<td>PATENT STATEMENT: The Herculex I and the Herculex RW Insect Resistance technologies incorporated into these seeds are protected by one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). The use of seed from such a crop or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. Agrisure RW technology incorporated into these seeds is commercialized under a license from Syngenta Crop Protection AG, under one or more U.S. patent numbers. This license does not extend to the use of seed from such crop or the progeny thereof for propagation or seed multiplication. Furthermore, the use of such seed or the progeny thereof for propagation, seed multiplication, production or development of a hybrid or different variety of seed not prescribed, breeding or crossing, is strictly prohibited. resale or transfer of this seed is strictly prohibited. Herculex® Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred.</td>
<td>YOU MUST SIGN A TECHNOLOGY USE AGREEMENT, READ THE PRODUCT USE GUIDE PRIOR TO PLANTING AND FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.</td>
</tr>
<tr>
<td>Optimum AcreMax 1 Insect Protection</td>
<td>PATENT STATEMENT: The Herculex I and the Herculex RW Insect Resistance technologies incorporated into these seeds are protected by one or more U.S. patents. The purchase of these seeds includes a limited license to produce a single corn crop in the United States (or other applicable country). The use of seed from such a crop or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. Herculex® Insect Protection technology by Dow AgroSciences and Pioneer Hi-Bred.</td>
<td>YOU MUST SIGN A TECHNOLOGY USE AGREEMENT, READ THE PRODUCT USE GUIDE PRIOR TO PLANTING AND FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.</td>
</tr>
<tr>
<td>SmartStax®</td>
<td>PATENT STATEMENT: This hybrid contains the SmartStax® insect protection traits. SmartStax® hybrids contain the active ingredients Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1, Cry34Ab1 and Cry35Ab1 from Bacillus thuringiensis (B.t.) that together control or suppress European corn borer, southwestern corn borer, corn stalk borer, corn earworm, sugarcane borer, black cutworm, western corn rootworm, northern corn rootworm and Mexican corn rootworm. Product responses may vary by location, past population, environmental conditions and agricultural practices. EPA Reg. No. 64687.2</td>
<td>YOU MUST SIGN A TECHNOLOGY USE AGREEMENT, READ THE PRODUCT USE GUIDE PRIOR TO PLANTING AND FOLLOW INSECT RESISTANCE MANAGEMENT (IRM) REQUIREMENTS.</td>
</tr>
<tr>
<td>The Enlist® corn that adds a new 2,4-D tolerance to the glyphosate system and tolerance to FOP herbicides in corn. Available Enlist® herbicides include Enlist One® herbicide, a straight-shot 2,4-D, and Enlist Duo® herbicide, a combination of 2,4-D choline and glyphosate, are designed to be applied with the Enlist trait. Enlist herbicides with Dow® technology provide exceptional weed control and on-target application.</td>
<td>CAUTION: The planting of Optimum AcreMax 1 Insect Protection products is prohibited in certain California counties. Contact your sales professional for details.</td>
<td>CALIFORNIA RESTRICTION: The planting of Optimum AcreMax 1 Insect products is prohibited in certain California counties. Contact your sales professional for details.</td>
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For more information on Corteva Agriscience™ patents, refer to <www.traitstewardship.com>.
This Technology Use Agreement is entered into by Grower and Corteva Agriscience™ ("Corteva") effective [date] (the "Effective Date") by and between [Grower Name], with its address at [Address], [City], [State], [Zip Code], [Country] ("Grower") and Corteva Agriscience™, with its address at [Address], [City], [State], [Zip Code], [Country] ("Corteva").

1. PURPOSE.

This Technology Use Agreement (the "Agreement") is the sole instrument that sets forth the terms and conditions under which Grower is authorized to use Purchased Seed and Corteva Sourced Technology (as defined below). This Agreement constitutes the entire agreement between Grower and Corteva regarding the use of Purchased Seed and Corteva Sourced Technology following receipt of any Update Notification for Purchased Seed.

2. SEED-RELATED AGREEMENTS.

Upon acceptance by Corteva of this Agreement, unaltered and duly executed by Grower, Grower authorizes the Representatives to enter upon land where Grower has planted or is growing Seed as may be necessary to conduct any of the actions authorized hereunder. Grower authorizes the Representatives to enter upon the land where Grower has planted or is growing Seed as may be necessary to conduct any of the actions authorized hereunder in accordance with the acceptable, legal way to enter land for agronomic activities.

3. TERM AND TERMINATION.

This Agreement (including documents and updates incorporated herein pursuant to Article 3 hereof) covers Grower's activities in the United States and does not authorize Grower to plant Seed in the United States, or to export or otherwise transfer any ownership rights of Corteva Sourced Technology to Grower. All prior agreements and understandings between Grower and Corteva with respect to the limited right to use Corteva Sourced Technology are hereby superseded by this Agreement, and constitute the entire agreement between Grower and Corteva regarding the use of Purchased Seed and Corteva Sourced Technology. Grower hereby covenants to theGrower, and user of the Purchased Seed and Corteva Sourced Technology, the identity of all applicable fees for each of these, and, or other data as specified in the Agreement.

4. ADDITIONAL PROVISIONS.

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.

5. TERRITORY AND TERMINATION:

The failure of Grower or the Representatives to perform any of their respective obligations hereunder shall not relieve either party from performing their respective obligations hereunder, and the non-performance of Purchased Seed and/or Corteva Sourced Technology, no claim can be asserted against Corteva unless Grower gives notice to Corteva within fifteen (15) days after the date of the first written notice of the alleged non-performance of Purchased Seed and/or Corteva Sourced Technology, which notice shall describe the nature of the non-performance with reasonable particularity.

6. LIMITATION OF LIABILITY.

Corteva reserves the right to revoke Grower's right to use any Corteva Sourced Technology. All prior agreements and understandings between Grower and Corteva with respect to the limited right to use Corteva Sourced Technology are hereby superseded by this Agreement, and constitute the entire agreement between Grower and Corteva regarding the use of Purchased Seed and Corteva Sourced Technology. Grower hereby covenants to the Grower, and user of the Purchased Seed and Corteva Sourced Technology, the identity of all applicable fees for each of these, and, or other data as specified in the Agreement.

7. ADDITIONAL PROVISIONS:

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.

8. ADDITIONAL PROVISIONS:

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.

9. ADDITIONAL PROVISIONS:

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.

10. ADDITIONAL PROVISIONS:

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.

11. ADDITIONAL PROVISIONS:

Grower agrees to communicate all applicable terms, conditions and restrictions on Seed whether under this Agreement or on any other Seed economic activity. Grower shall not supply crop produced from Purchased Seed for planting, and not to supply any crop produced from or based on Purchased Seed for any crop, plant, product or service of any kind to any third party without the prior written consent of Corteva.