



Refuge Calculator:

For Maximization of Insect Protection within IRM Compliance

For Bt Corn Growers

Outside of Cotton-Growing Region

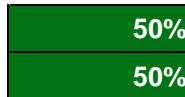
This table enables you to maximize the number of acres you plant to different Bt traits while maintaining the required minimum refuge sizes for corn borer-protected Bt corn, corn rootworm-protected Bt corn and combined corn borer and corn rootworm-protected Bt corn (stack).

To Use: Enter your total corn acres in the first yellow cell. Then enter a total number of trait acres up to the maximum allowed (indicated in the grey cells) for each trait. Mouse over the trait description for the list of products to include. The maximum allowed will update each time you enter a new number in the yellow cells. **ERROR** will appear in red beneath numbers of acres for each trait that is not allowed. Non-Bt acres are automatically calculated as the remaining acres not planted to a Bt trait.

At the bottom of the table you see the overall percent of your proposed corn acres to be planted with each trait. These numbers should not exceed 80%. If all numbers entered have the appropriate refuge for both traits, "GOOD" will appear in green in the bottom left of the box; otherwise this cell will indicate changes are needed. The pie chart at the bottom shows acreage breakdown as percentages.

	Total Corn Acres	Corn Borer / Rootworm Stack Acres	Rootworm Acres	Corn Borer Acres	Non-Bt Acres
Maximum Acres Allowed		70	40	40	
Enter Data in Yellow Cells	100	40	10	10	40

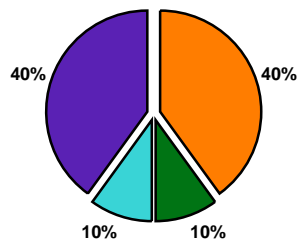
Percent Rootworm Traits



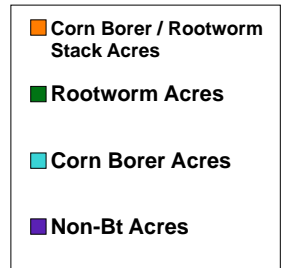
Percent Corn Borer Traits



Trait Percentages



GOOD



Market Choices
Grain harvested from products that bear this mark is fully approved for food and feed use in the United States and Japan, but is not approved in the European Union. You must find a market for this crop that will not ship the grain or its processed products to Europe. Appropriate markets for this grain include: domestic feed use or grain handlers that specifically agree to accept this grain and handle it appropriately. For more information on your grain market options, go to the American Seed Trade Association's website at www.amseed.org or call your seed supplier.

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Before opening a bag of seed, be sure to read and understand the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.

IMPORTANT: The following information is current as of January 2007: YieldGard Plus, YieldGard Rootworm with Roundup Ready Corn 2 and YieldGard Corn Borer with Roundup Ready Corn 2 are grandfathered for import and use in processed feed in the European Union (EU). YieldGard Plus with Roundup Ready Corn 2, YieldGard VT Rootworm/RR2 and YieldGard VT Triple are neither approved nor grandfathered, and there is zero tolerance for these traits in processed feed imported in the EU. Growers of all products bearing the Market Choices mark must talk to their grain handler to confirm the handler's buying position for grain from these products. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted.

Always read and follow pesticide label directions. Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® agricultural herbicides. Roundup® agricultural herbicides will kill crops that are not glyphosate tolerant. YieldGard Plus Corn can be offered for sale in the states in which it is registered. Check with your Monsanto representative for state-specific status. Roundup®, YieldGard®, YieldGard Plus and Design, Roundup Ready® and Asgrow® are registered trademarks of Monsanto Technology LLC. DEKALB® is a registered trademark of DeKalb Genetics Corporation. All other trademarks are the property of their respective owners. ©2007 Monsanto Company.



Maximum Insect Protection





Refuge Calculator:

For Maximization of Insect Protection within IRM Compliance Requirements
For Bt Corn Growers

Inside of Cotton-Growing Region

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At the bottom of the table you see the overall percent of your proposed corn acres to be planted with each trait. These numbers should not exceed 80% for rootworm traits, 50% for corn borer traits. If all numbers entered have the appropriate refuge for both traits, "GOOD" will appear in green in the bottom left of the box; otherwise this cell will indicate changes are needed. The pie chart at the bottom shows acreage breakdown as percentages.

	Total Corn Acres	Corn Borer / Rootworm Stack Acres	Rootworm Acres	Corn Borer Acres	Non-Bt Acres
Maximum Acres Allowed		50	46	10	
Enter Data in Yellow Cells	120	50	10	10	50

Percent Rootworm Traits

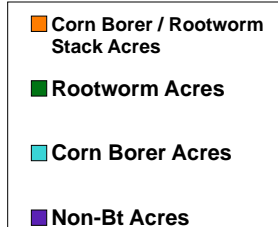
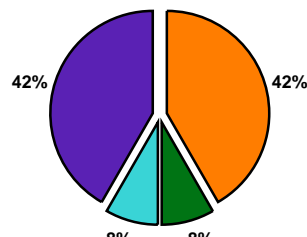
50%

Percent Corn Borer Traits

50%

GOOD

Trait Percentages



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Maximum Insect Protection

Corn Traits

Value Calculator

	Conventional	Roundup Ready® Corn 2	YieldGard® Corn Borer/ Roundup Ready Corn 2	YieldGard Plus/ Roundup Ready Corn 2	YieldGard VT™ Triple
Seed Cost					
Cost/Unit	\$105.50	\$150.00	\$165.00	\$198.00	\$200.50
Plant Population	29,630	29,630	29,630	29,630	29,630
Acres/Bag	2.70	2.70	2.70	2.70	2.70
Cost/Acre	\$39.07	\$55.56	\$61.11	\$73.33	\$74.26
Weed and Insect Control Costs					
Herbicide Program Cost/Acre	\$28.00	\$18.00	\$18.00	\$18.00	\$18.00
Seed Treatment Cost/Acre	\$6.00	\$6.00	\$6.00	included	included
Cultivation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Insecticide Cost/Acre	\$16.50	\$16.50	\$16.50	\$0.00	\$0.00
Total Weed and Insect Control Costs	\$50.50	\$40.50	\$40.50	\$18.00	\$18.00
System Cost	\$89.57	\$96.06	\$101.61	\$91.33	\$92.26
Return per Acre					
# Bushels Yield/Acre	150	156	159	166	169
Today's Price per Bushel	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50
Gross Revenue per Acre	\$525.00	\$546.00	\$556.50	\$581.00	\$591.50
Net Income	\$435.43	\$449.94	\$454.89	\$489.67	\$499.24
Net Income Advantage Over Current Program		\$14.52	\$19.46	\$54.24	\$63.81
Other Benefits to Value with Each Program (\$/A)					
Convenience:					
Time savings (less equip. calibration, less crop scouting, etc.)		\$0.50	\$0.50	\$1.00	\$1.00
Less chemical/insecticide handling – spillage, disposal, laundry		\$0.50	\$1.00	\$1.50	\$1.50
Harvestability:					
Less lodged corn for easier harvest			\$1.00	\$1.50	\$1.50
Higher grain quality from less insect damage			\$1.00	\$1.00	\$1.00
Less volunteer corn next season			\$0.50	\$1.00	\$1.00
Peace Of Mind:					
More consistent weed control in varied weather conditions		\$1.00	\$1.00	\$1.00	\$1.00
Reduced worry about drift of Roundup agricultural brands onto non-Roundup Ready crops		\$0.50	\$0.50	\$0.50	\$0.50
Agronomic:					
Better utilization of moisture and nutrients			\$0.50	\$1.00	\$1.00
Less worry about crop safety		\$1.00	\$1.00	\$1.00	\$1.00
Total Value of Other Benefits/Acre		\$3.50	\$7.00	\$9.50	\$9.50
Total Net Income Advantage/Acre		\$18.02	\$26.46	\$63.74	\$73.31

