

January 30, 2008**FEFO 08-03****The Biotech Yield Endorsement (BYE)**

By using a Biotech Yield Endorsement (BYE), farmers in Illinois, Indiana, Iowa, and Minnesota will be able to receive discounts on crop insurance for non-irrigated corn grown for grain. To be eligible for the discount, farmers must plant hybrids containing Monsanto-based technology with the following three traits: Roundup Ready® Corn 2, YieldGard® Corn Borer, and YieldGard® Rootworm. A list of qualifying hybrids will be made available at <http://www.biotechyieldendorsement.com/>.

Discounts are available on Actual Production History (APH), Crop Revenue Coverage (CRC), and Revenue Assurance (RA). In northern and central Illinois, BYE discount will be about 20% for CRC policies with 75% coverage levels and about 15% for CRC policies with 85% coverage levels.

BYE discounts are offered because Monsanto provided three-years of comprehensive field-trial data to the Risk Management Agency (RMA) indicating that Monsanto-based triple-stacks hybrids have lower yield losses than conventional hybrids under drought and other stress conditions. Because yield losses are expected to be less, insurance payments are expected to be less. Lower expected payments then justify lower crop insurance premiums.

Eligibility for the BYE discounts

To receive a BYE discount, a farmer must plant 75% of an insured unit of non-irrigated grain corn with hybrids containing Monsanto-based triple-stack traits. In addition, farmers using BYE must:

1. Sign a certification indicating that 75% of the insured unit is planted to eligible hybrids.
2. Maintain invoices indicating that sufficient quantities of eligible hybrids have been purchased to plant required acres.
3. Provide signed certifications from seed suppliers indicating that eligible hybrids were purchased in sufficient quantity to plant the acres insured using BYE.
4. Be prepared for spot checks. During the growing season, spots checks of BYE insured units will be made. During a spot check, documentation listed above will be checked and seed dealers will be contacted to verify that the eligible hybrids have been purchased. In addition, plant tissues from growing crop will be collected to assure that Monsanto-based triple-stacks have been planted.

As is always the case, farmers should notify crop insurance agents if they believe they will have insurance claims. All claims of over \$100,000 will have certifications and invoices checked. Farmers should maintain all paperwork relative to the BYE.

Units

The BYE applies to an insured unit. In many cases, an insured unit will differ from total corn acres planted on a farm. Generally, three units are available for insuring corn:

1. An **enterprise unit** includes all corn (i.e., one crop) in a county.
2. A **basis unit** divides enterprise units by ownership splits. All owned and cash rented land planted to corn will be one basic unit. A basic unit also will exist for each share rent landlord.
3. An **optional unit** divides a basic unit into more divisions. Generally, all basic unit acres in one township section is an optional unit. An optional unit will exist for land in each township section.

Potential BYE purchases are illustrated for a farmer with one enterprise unit, two basic units, and four optional units.

Enterprise unit: If this farmer purchases BYE for the enterprise unit, the farmer has to plant 75% of enterprise unit's acres to Monsanto-based triple-stacked hybrids.

Basic units: If this farmer insures with basic units, the farmer could apply BYE to one or both basic units. If BYE is applied to only one unit, the BYE premium discount applies only to the unit on which BYE is taken.

Optional units: If this farmer insures with optional units, the farmer could apply BYE to one optional unit, two optional units, three optional units, or four optional units. The BYE discount applies only to the optional units on which the BYE endorsement is taken.

The ability to insure different units may influence where Monsanto-based triple-stacks are planted. A farmer may wish to make sure the 75% planting requirement is met on a unit so as to receive the BYE discount on that unit.

Premiums reductions

Table 1 shows premiums for a Sangamon County, Illinois farm having an 170 bushel APH yield. CRC premiums are estimates as all information to quote revenue policies will not be known until the beginning of March. For the APH yield policy, premiums for a 75 percent coverage level are \$8.57 per acre without BYE and \$6.21 with BYE. In this case, BYE provides a \$2.36 per acre reduction in premium equaling a 28% reduction. At an 85% coverage level, APH costs \$19.59 without BYE and \$15.69 with BYE. The premium reduction at the 85 percent coverage level is \$3.90 or 20%. On a percent basis, BYE reductions range from 50 percent at a 50 percent coverage level down to 20 percent at an 85 percent coverage level.

For the CRC revenue policy, per acre premiums at a 75 percent coverage level are \$15.70 per acre without BYE and \$12.58 with BYE, a reduction of \$3.12 per acre. At an 85 percent coverage level, the CRC premium without BYE is \$37.45 and with BYE is \$32.12. BYE reduces premiums by \$5.33 per acre at an 85 percent coverage level.

Table 2 shows CRC premiums with and without BYE for different units. Note that an optional unit with BYE has a lower premium than a basic unit without BYE. At a 75 percent coverage level, for example, a basic unit without BYE costs \$15.70 per acre while an optional unit with BYE costs \$13.98 per acre. As long as sufficient acres are insured using BYE, use of optional units will result in lower premium costs than insuring using basic units without BYE. At a 75 percent coverage level, about 50 percent of acres need to be insured using BYE for optional units to have the same premium cost as basic units without BYE. Because of premium reductions, some farmers who have used basic units in previous years may wish to consider using optional units in 2008.

Table 1. Estimated Insurance Premiums with and without Biotech Yield Endorsement (BYE), Basic Units, Sangamon County, Illinois, 2008.^{1,2}

Coverage Level	APH ³			CRC ⁴		
	Not BYE	BYE	Reduction	Not BYE	BYE	Reduction
	\$ per acre			\$ per acre		
50%	1.32	0.66	50%	2.51	1.69	33%
55%	2.08	1.04	50%	3.84	2.55	34%
60%	2.86	1.60	44%	5.21	3.62	31%
65%	4.33	2.71	37%	7.84	5.77	26%
70%	5.88	4.00	32%	10.68	8.22	23%
75%	8.57	6.21	28%	15.70	12.58	20%
80%	12.87	9.84	24%	23.98	19.88	17%
85%	19.59	15.69	20%	37.45	32.12	14%

¹ Estimated using the 2008 Crop Insurance Decision Tool, a FAST Microsoft Excel spreadsheet available for download from the FAST section of farmdoc (www.farmdoc.uiuc.edu).

² Estimated for a farm with an 170 bushel Actual Production History (APH) yield.

³ Actual Production History (APH) yield insurance. Estimated with an indemnity price of \$4.75 per bushel.

⁴ Crop Revenue Coverage (CRC) revenue insurance. Estimated using a \$5.00 base price and .651 high and low price factors. Base prices and price factors will be known in the beginning of March.

Table 2. Estimated Crop Revenue Coverage Premiums with and without Biotech Yield Endorsement (BYE), Sangamon County, Illinois, 2008.^{1,2,3}

Coverage Level	Without BYE			With BYE		
	Optional	Basic	Enterprise ⁴	Optional	Basic	Enterprise ⁴
	\$ per acre			\$ per acre		
50%	2.79	2.51	2.06	1.88	1.69	1.39
55%	4.27	3.84	3.15	2.83	2.55	2.09
60%	5.79	5.21	4.27	4.02	3.62	2.97
65%	8.72	7.84	6.43	6.41	5.77	4.73
70%	11.87	10.68	8.54	9.14	8.22	6.57
75%	17.45	15.70	12.23	13.98	12.58	9.80
80%	26.65	23.98	18.29	22.09	19.88	15.16
85%	41.61	37.45	27.94	35.69	32.12	23.97

¹ Estimated using the 2008 Crop Insurance Decision Tool, a FAST Microsoft Excel spreadsheet available for download from the FAST section of farmdoc (www.farmdoc.uiuc.edu).

² Estimated for a farm with a 170 bushel Actual Production History (APH) yield.

³ Estimated using a \$5.00 base price and .651 high and low price factor. The base price and price factors will be know at the beginning of March.

⁴ Based on 400 acres in the unit.

Additional information on BYE

More information on BYE is available from crop insurance agents. In addition, the following sources may be useful:

1. RMA has a website giving answers to frequently asked questions on BYE (<http://www.rma.usda.gov/help/faq/bye.html>).
2. The BYE Endorsement and Handbook are available at <http://www.rma.usda.gov/pilots/bye.html>. The BYE Insurance Handbook (http://www.rma.usda.gov/handbooks/20000/2008/08_20070.pdf) provides detail on BYE compliance procedures.
3. A list of qualified hybrids will be available at <http://www.biotechyieldendorsement.com/>.
4. Premiums with and without BYE are available from the crop insurance section of *farmdoc* at <http://www.farmdoc.uiuc.edu/cropins/index.asp>.
5. Information provided by Monsanto is at <http://www.yieldgardvt.com/Biotech/Default.aspx>.

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