

Table 1. Relative efficacy of various Bt corn products.

Product Trade Name (Abbreviation)	Bt Protein(s)	Amount of Insect Control ¹						Herbicide tolerance ⁵	Required refuge in the South ⁶	Event(s)
		Corn earworm (ear)	Fall armyworm (whorl)	Corn borers ² (stalk)	Black cutworm (seedling)	Lesser Cornstalk Borer ³	Corn rootworm ⁴ (roots)			
-----Above-ground-----										
Agrisure Products										
Agrisure Artesian 3010A	Cry1Ab	P-F	F-G	E	P	G	-	GTLL	50%	Bt11, GA21
Agrisure GT/CB/LL	Cry1Ab	P-F	F-G	E	P	G	-	GTLL	50%	Bt11, GA21
Agrisure 3000GT, Agrisure Artesian 3011A	Cry1Ab, mCry3A	P-F	F-G	E	P	G	F-G	GT LL	50%	Bt11, MIR604, GA21
Agrisure Viptera 3110	Vip3Aa20, Cry1Ab	E	E	E	G	G	-	GT LL	20%	MIR162, Bt11, GA21
Agrisure Viptera 3111	Vip3Aa20, Cry1Ab, mCry3A	E	E	E	G	G	F-G	GT LL	20%	MIR162, Bt11, MIR604, GA21
Agrisure Viptera 3220	Vip3Aa20, Cry1Ab, Cry1F	E	E	E	VG	VG	-	GT LL	20%	MIR162, Bt11, TC1507, GA21
Herculex and Optimum Products										
Herculex I (HX1) or (HR)	Cry1F	P	G-VG ⁷	E	G	G	-	LL	50%	TC1507
Optimum Intrasect (YHR)	Cry1F, Cry1Ab	F	VG	E	VG	VG	-	LL RR2	20%	TC1507, MON810
Optimum Intrasect XTRA (YXR)	Cry1F, Cry1Ab, Cry34Ab1/Cry35Ab1	F	VG	E	VG	VG	E	LL RR2	20%	TC1507, MON810, DAS-59122-7
Optimum Leptra (VYHR)	Cry1F, Cry1Ab, Vip3Aa20	E	E	E	VG	VG	-	LL RR2	20%	TC1507, MON810, MIR162
YieldGard Products										
YieldGard Corn Borer (YGCB)	Cry1Ab	P-F	F-G	E	P	G	-	-	50%	MON810
YieldGard VT Triple (VT3)	Cry1Ab, Cry3Bb1	P-F	F-G	E	P	G	VG	RR2	50%	MON810, MON88017
Genuity/SmartStax Products										
Genuity VT Double PRO (GENVT2P)	Cry1A.105, Cry2Ab2	P-G	E	E	P	VG	-	RR2	20%	MON89034, NK603
Genuity VT Triple PRO (GENVT3P)	Cry1A.105, Cry2Ab2, Cry3Bb1	P-G	E	E	P	VG	VG	RR2	20%	MON89034, MON88017
PowerCore (Dow)	Cry1A.105, Cry2Ab2, Cry1F	F-G	E	E	G	VG	-	LL RR2	20%	MON89034, TC1507, NK603
SmartStax (SSX, Dow) or Genuity SmartStax (GENSS, Monsanto)	Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1, Cry34Ab1/Cry35Ab1	F-G	E	E	G	VG	E	LL RR2	20%	MON89034, TC1507, MON88017, DAS-59122-7
Trecepta	Cry1A.105, Cry2Ab2, Vip3A20	E	E	E	VG	VG	-	RR2	20%	MON89034, MIR162

¹ E = excellent, VG = very good, G = good, F = fair, P = poor. Excellent usually means better than 95 percent control. Poor means less than about 30% control. ² Southwestern corn borer, European corn borer, sugarcane borer, and others. ³ Lepidopteran Bt traits do not specifically list lesser cornstalk borer (LCB) as a target pest. ⁴ Bt rootworm traits target western corn rootworm larvae (CRW), which occurs in areas such as north Alabama and north Georgia. These traits are not effective against southern corn rootworm. ⁵ GT = Glyphosate tolerant; LL= Liberty Link (glufosinate tolerant); RR2= Roundup Ready 2 (glyphosate-tolerant) ⁶ See product Insect Resistance Management (IRM) documentation from the seed companies for more details. ⁷ Resistance to Cry1F has been reported in some areas of the Southeast. Adapted from D. Buntin and K. Flanders, 2014, Bt Corn Products for the Southeastern United States. Based on input from entomologists attending the annual Southern Field Crops Management Seminar.

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