

Reported Genetically Engineered Seed Sales in Vermont, 2002 to 2015

Companies reporting (2.1.16):

The following companies reported sales of GE seeds in Vermont in 2015, as required by 6VSA §648:

America's Alfalfa
 Dow/Agrigenetics/Mycogen/Hyland
 Dairyland Seed Co.
 Kent Nutrition Group
 Loveland Products
 Monsanto Ag Products LLC, including Fielder's Choice, Heartland Hybrids, and Hubner Seeds brands
 Pioneer Hi-Bred International Inc.
 Seedway Inc. , including Agriculver brand
 Syngenta Seeds Inc., including Agrisure and Garst seed brands.
 T.A. Seeds

GE brand and traits reported (2002 to 2014, inclusive):

Seed Type	Brand	Trait	Herbicide / Pest Tolerance
Alfalfa	Roundup Ready	Herbicide Tolerant	Glyphosate
Canola	Roundup Ready	Herbicide Tolerant	Glyphosate
Corn	Roundup Ready	Herbicide Tolerant	Glyphosate
Corn	Roundup Ready 2	Herbicide Tolerant	Glyphosate
Corn	Liberty Link	Herbicide Tolerant	Glyfosinate - ammonium
Corn	Clearfield ¹	Herbicide Tolerant	Tolimidazolinone
Corn	YieldGard CB	Insect Resistance - Bt	Corn Borer resistant
Corn	Agrisure CB (Bt11)	Insect Resistance - Bt	Corn Borer resistant
Corn	YieldGard RW	Insect Resistance - Bt	Rootworm resistant
Corn	YieldGard Plus	Insect Resistance - Bt	Corn Borer and Rootworm resistant
Corn	Herculex I	Insect Resistance - Bt	Corn Borer, Cutworm, Fall Armyworm Resistant
Corn	YieldGard & Roundup Ready 2	Herbicide Tolerant / Insect Resistance	Stacked Trait
Corn	Herculex & Liberty Link	Herbicide Tolerant / Insect Resistance	Stacked Trait
Corn	Liberty Link & Bt11	Herbicide Tolerant / Insect Resistance	Stacked Trait
Corn	YieldGard/VT Triple	Herbicide Tolerant Insect Resistant	Stacked Trait
Soybean	Roundup Ready	Herbicide Tolerant	Glyphosate
Soybean	Roundup Ready & Soybean Cyst Nematode	Herbicide Tolerant / Nema. Resistant	Stacked Trait
Sunflower	Clearfield	Nematode Resist.	

Aggregate Pounds of GE seed sold in Vermont from 2002 through 2015, inclusive.

GE Seed Kind	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
(units in pounds)												
Soybean – total GE	19,302	115,600	168,900	175,900	197,580	220,600	282,340	193,205	297,832	199,660	270,129	446,147
Soybean – HT/SCN								70,500	55,650	38,000	6,200	100
Canola - HT						4,300	0	0	0	0	0	0
Corn - IR	*	138,138	122,786	78,069	79,231	113,540	244,407	167,538	153,176	3,900	17,059	0
Corn - HT	*	119,694	145,755	206,851	256,324	281,675	293,763	451,040	437,457	463,133	420,438	911,637
Corn - IR / HT	*	43,566	68,931	214,839	285,999	447,326	714,934	785,652	1,049,630	1,498,517	1,197,805	1,454,388
Alfalfa - HT				50	6,150	0	0	0	0	0	3,600	4,700
Sunflower – HT ¹										32	192	0
Total GE Corn	149,083	301,398	337,472	499,759	621,554	842,541	1,253,104	1,404,220	1,640,263	1,965,549	1,635,302	2,366,025
Total GE Corn + GE Soybean	168,385	416,998	506,372	675,659	819,134	1,063,141	1,535,444	1,667,925	1,938,094	2,165,210	1,905,431	2,812,172
Total GE Corn + GE Soybeans + GE Alfalfa				675,709	825,284	1,063,141	1,535,444	1,667,925	1,938,094	2,165,210	1,909,031	2,816,872
Total, All GE Crops	168,385	416,998	506,372	675,709	825,284	1,067,441	1,535,444	1,667,925	1,938,094	2,165,242	1,909,223	2,816,872
(acres planted [†])												
Total Corn Acres, planted, all purposes	92,000	96,000	90,000	90,000	85,000	92,000	94,000	91,000	92,000	90,000	91,000	92,000
Percent GE Corn of Total Corn	8%	16%	19%	28%	37%	46%	67%	77%	89%	109% ²	90%	103%
Acres of GE Corn **	7,360	15,360	17,100	24,988	31,078	42,127	62,655	70,211	82,013	98,277	81,765	94,641
Percent GE Soybean of Total Soybean				††	††	††	††	††	††	††	††	††
Acres of GE Soybeans **				3,518	3,952	4,412	5,647	5,274	5,957	3,993	5,403	8,923
Total Forage Alfalfa Acres (Dry hay, haylage)				95,000	90,000	80,000	75,000	70,000	75,000	75,000	75,000	90,000
Alfalfa Acres New Seedings Total				11,000	11,000	10,000	8,000	8,000	8,000	6,000	6,000	12,000
Percent GE Alfalfa of Total Alfalfa, new seedings***				0.03%	3.7%	0.0	0.0	0.0	0.0	0.0	4.0%	2.6%
Acres of GE Alfalfa, new seedings**				3.33	410	0.0	0.0	0.0	0.0	0.0	240	313

Notes:

HT = Herbicide Tolerant

IR = Insect Resistant.

IR / HT = Insect Resistant / Herbicide Tolerant

HT / SCN = Herbicide Tolerant / Soybean Cyst Nematode resistant

BT = Seed engineered to produce insecticidal proteins with activity identical to those proteins produced by the insecticidal bacterium *Bacillus thuringiensis* (Bt)

Stacked Trait – Seed with two or more GE traits are said to be ‘stacked’ or to have ‘stacked traits, often tolerance to a broad spectrum herbicide combined with one or more Bt protein traits.

¹“Clearfield” herbicide resistance is bred into seed via traditional breeding and hybridization techniques and is therefore not a genetically engineered trait; however, it has appeared on GE Seed Reporting Forms submitted to the Agency of Agriculture, Food & Markets, and is included here as a result.

² In 2011, significant acreages of corn, all purposes, were reported as having been reseeded as a result of late spring germination failures (flooding, late frosts, killing frosts after seedling emergence, etc.), which may help explain this overage.

* Breakdown of corn traits is not available for 2002.

** Assumes a seeding rate of 20 lb/ac for corn , 50 lb/ac for soybeans, and 15 lb/ac for alfalfa. Calculated acres are derived from percentages, which are rounded.

† Acreage planted data obtained from the National Agricultural Statistics Service (NASS) - <http://www.nass.usda.gov>

†† The amount of GE soybean planted in VT as a percentage of the total is unknown, but is estimated to be in the 85 to 95% range

*** No GE alfalfa was planted in 2007 or 2008 due to the May 3, 2007 Federal injunction prohibiting sale and planting of Roundup Ready alfalfa after that date.