

2023 BSDL Sugar Beet Production Challenges Survey (U.S.)

	Total Average Value Lost Per Production Challenge		Total Challenged Acres	
	Without Management	With Management	Without Management	With Management
Abiotic - Total	\$ 1,598,509,044	\$ 967,550,944	2,887,795	2,450,284
Drought Stress	\$ 492,190,736	\$ 259,340,736	780,396	608,396
Heat Stress	\$ 430,811,836	\$ 289,930,736	788,107	661,896
Frost	\$ 370,990,736	\$ 213,400,736	632,396	535,396
Excess water	\$ 295,765,736	\$ 199,578,736	641,896	601,596
Salt	\$ 8,750,000	\$ 5,300,000	45,000	43,000
Disease - Total	\$ 3,878,917,754	\$ 490,462,982	4,918,534	1,616,176
Cercospora	\$ 986,445,000	\$ 147,343,088	992,396	573,896
Rhizomania	\$ 805,729,692	\$ 32,407,150	1,040,396	108,550
Rhizoctonia	\$ 715,338,736	\$ 150,324,704	918,396	444,069
Aphanomyces	\$ 495,492,376	\$ 122,120,880	751,936	327,430
Curly Top	\$ 326,060,000	\$ 187,500	268,200	5,000
Nematode	\$ 201,300,000	\$ 3,000,000	284,000	13,000
Alternaria	\$ 184,086,950	\$ 2,109,000	299,010	34,000
Fusarium	\$ 134,215,000	\$ 31,770,660	211,200	88,231
Powdery Mildew	\$ 30,250,000	\$ 1,200,000	153,000	22,000
Insect - Total	\$ 698,935,189	\$ 117,036,988	1,064,439	344,359
Aphids (Root & Black Bean)	\$ 257,322,050	\$ 33,438,360	368,190	94,551
Lygus	\$ 16,125,000	\$ 400,000	147,500	16,000
Root Maggot	\$ 399,688,139	\$ 83,073,628	471,749	231,308
Wireworm	\$ 25,800,000	\$ 125,000	77,000	2,500
Other - Total	\$ 1,899,844,206	\$ 657,957,800	2,026,951	1,473,144
Storage	\$ 771,375,000	\$ 365,333,000	898,844	745,844
Weed Control	\$ 1,128,469,206	\$ 292,624,800	1,128,107	727,300
Grand Total	\$ 8,076,206,193	\$ 2,233,008,714	10,897,719	5,883,963

Market	2023 Acres
Amalgamated Sugar	180,000
American Crystal	436,396
Michigan Sugar	145,000
Minn-Dak	102,000
SMBSC	120,000
Spreckels Sugar	23,000
Western Sugar	111,000
Wyoming Sugar	10,711
Total	1,128,107

Challenged Acres <i>without management</i>	Production acres that will suffer an economic production loss due to a specific challenge if the challenge is not managed
Challenged Acres <i>with management today</i>	Production acres that suffer an economic production loss due to a specific challenge today with the management of the challenge employed
Economic production loss	A loss in sugar yield that exceeds 5% of gross grower payment for the acre as determined by each cooperative
Management of challenge	An applied crop input, seed treatment, agronomic practice or genetic trait that reduces the impact of the economic production loss from a challenge
Market Acres	Average production acres as set by each cooperative
Future Risk of Challenge	Assessment of the management of the challenge based on what you know today
Agronomic practice	Crop rotation, soil amendments, cultivation
Economic production loss	Calculated based on each cooperative's average tons/acre and average payment/ton