

AGRICULTURAL BEET

June 24th, 2021

Southern Minnesota Beet Sugar Cooperative
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2021: Maintaining the Momentum

How does 2021 stack up to recent production years relating to GDUs and crop progress?

The epidemic CLS year of 2016 had an average plant date of April 15. In both 2020 and 2021, this date was April 21. Early planting in 2016 provided quick GDU accumulation yet we are not far behind in 2021 (see table below). Unprotected early canopy development coupled with loss of Strobilurin fungicides led to devastating CLS in 2016. Crop year 2020 had early GDU accumulation but was still one of the better crops in SMBCS history thanks to improved management practices.

How did we arrive at this fortunate turn of events? Early fungicide program initiation is a major contributor. Observation of previous years suggests we should have begun our program between June 14th and 19th in 2016 and between June 18th and 24th in 2020. Using 1500 GDU's as a trigger point, this suggests treating 2021 similarly to 2020 based upon GDUs.

2016			
Month	Date	GDU Base 34	Cumulative GDU from Plant Date
June	1	25	1079.0
June	2	27	1106.0
June	3	29	1134.5
June	4	27	1161.5
June	5	33	1194.5
June	6	27	1221.5
June	7	24	1245.5
June	8	28	1273.0
June	9	37	1310.0
June	10	43	1352.5
June	11	48	1400.0
June	12	35	1435.0
June	13	36	1470.5
June	14	33	1503.5
June	15	35	1538.0
June	16	38	1575.5
June	17	40	1615.0
June	18	46	1660.5
June	19	49	1709.5
June	20	40	1749.0
June	21	38	1787.0
June	22	42	1828.5
June	23	31	1859.5
June	24	38	1897.0
June	25	48	1944.5
June	26	45	1989.5
June	27	35	2024.0
June	28	33	2057.0
June	29	37	2094.0
June	30	38	2131.5

2020			
Month	Date	GDU Base 34	Cumulative GDU from Plant Date
June	1	45	887.5
June	2	40.5	928
June	3	34.5	962.5
June	4	33	995.5
June	5	33.5	1029
June	6	28	1057
June	7	40	1097
June	8	50.5	1147.5
June	9	41	1188.5
June	10	29	1217.5
June	11	30.5	1248
June	12	27.5	1275.5
June	13	26	1301.5
June	14	31.5	1333
June	15	41.5	1374.5
June	16	46	1420.5
June	17	43.5	1464
June	18	38.5	1502.5
June	19	31	1533.5
June	20	31	1564.5
June	21	34.5	1599
June	22	31	1630
June	23	33	1663
June	24	32	1695
June	25	33	1728
June	26	41	1769
June	27	37	1806
June	28	40	1846
June	29	39	1885
June	30	43.5	1928.5

2021			
Month	Date	GDU Base 34	Cumulative GDU from Plant Date
June	1	27	812.5
June	2	38	850.5
June	3	41.5	892
June	4	43.5	935.5
June	5	50	985.5
June	6	49	1034.5
June	7	45	1079.5
June	8	46.5	1126
June	9	46.5	1172.5
June	10	47.5	1220
June	11	40.5	1260.5
June	12	35.5	1296
June	13	38.5	1334.5
June	14	35	1369.5
June	15	34	1403.5
June	16	38	1441.5
June	17	38.5	1480
June	18	39	1519
June	19	33	1552
June	20	25.5	1577.5
June	21	21	1598.5
June	22	24.5	1623
June	23	34.5	1657.5
June	24	38.5	1696
June	25		
June	26		
June	27		
June	28		
June	29		
June	30		

Bottom line: Growers are expressing reluctance to begin their fungicide program due to dry conditions. However, close examination of morning leaves indicate subtle dew formations that when coupled with adequate GDU accumulation and canopy closure suggest that CLS has enough tools to germinate. Please consider initiating your CLS program soon.