



Plant Stand Population 2017

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- Research has shown that there is no significant difference in tonnage, sucrose concentration, recoverable sucrose per ton, and recoverable sucrose per acre with plant populations between 150 to 300 plants per 100ft of row.
- The current recommendation is to have a harvest plant population of 175 to 200 plants per 100ft of row. This population provides a similar return as a plant population of 300 plants per 100ft of row at a reduced seed cost.
- Plant populations below 100 plants per 100ft of row show significantly lower tonnage, sucrose concentration, recoverable sucrose per ton, and recoverable sucrose per acre.
- Plant sugarbeet seeds 4.5 to 5 inches apart in 22-inch rows when planting to stand. Planting at 4 miles per hour is recommended.



Population trials conducted in 2011 and 2012, located near Murdock and Hector.

<u>Beets per 100'</u>	<u>Sugar</u>	<u>Ton/acre</u>	<u>EST</u>	<u>ESA</u>	<u>Purity</u>
100	17.30	26.56	290.76	7705.6	90.14
125	17.35	27.82	290.63	8084.1	89.88
150	17.20	28.46	289.49	8250.7	90.24
175	17.14	29.33	287.86	8456.3	90.13
200	17.36	29.17	292.98	8570.2	90.39
225	17.33	29.04	292.41	8514.1	90.42
250	17.28	29.97	292.02	8784.2	90.52
275	17.32	29.45	292.31	8632.6	90.42
<i>LSD(P=0.05)</i>	<i>N/S</i>	<i>1.46</i>	<i>N/S</i>	<i>414.3</i>	<i>N/S</i>

Information Credit:

Mark Bloomquist-Director of Research
 Cody Groen-Production Agronomist
 Khan, M. 2017 Sugar Beet Production Guide.
 NDSU Extension Service and
 University of Minnesota Extension.



SMBSC Agronomic Practice Database Population Data (2013-2016)

Plant Population	Whole Fields	EST	ESA	Sugar	Purity	Brie	Ton/A	Harvest Acres	Stand Count	Plant Date	Grow Days
	#	lbs	lbs	%	%				100ft		
<u>2016</u>											
< 25,000	15	225	3,421	13.60	90.2	65.5	15.17	1,046	96.9	4/14	188
25,000-30,000	20	238	4,344	14.27	90.3	49.5	18.18	1,930	116.8	4/15	185
30,001-35,000	54	234	5,037	14.07	90.3	54.9	21.36	5,406	137.2	4/15	186
35,001-40,000	86	240	5,643	14.41	90.4	50.2	23.39	8,312	158.7	4/17	180
40,001-45,000	148	242	6,559	14.48	90.5	53.1	26.98	15,055	180.5	4/20	179
45,001-50,000	233	249	7,393	14.85	90.6	49.5	29.62	29,469	200.0	4/17	181
> 50,001	273	251	8,031	14.97	90.7	47.9	31.94	31,327	227.7	4/18	180
Co-op Avg.		245	6,867	14.74	90.6	50.0	27.8	118,758	190.5		
<u>2015</u>											
< 25,000	4	276	6,942	16.42	90.3	59.5	25.03	502	94.3	4/11	191
25,000-30,000	7	273	7,165	16.39	89.8	68.1	26.39	502	117.8	4/11	184
30,001-35,000	28	278	7,621	16.48	90.5	48.1	27.26	3,168	137.4	4/14	180
35,001-40,000	78	288	8,362	17.00	90.8	38.7	29.07	7,322	160.3	4/13	179
40,001-45,000	182	288	8,394	16.97	90.9	36.1	29.17	20,937	180.1	4/15	176
45,001-50,000	245	287	8,860	16.92	90.8	36.5	30.92	28,799	200.0	4/15	175
> 50,001	253	294	9,459	17.24	91.2	30.2	32.22	30,159	225.3	4/16	176
Co-op Avg.		288	8,630	16.99	90.9	36.0	29.90	124,437	194.0		
<u>2014</u>											
< 25,000	52	255	4,472	15.43	89.5	60.7	17.39	5,163	93.0	5/12	148
25,000-30,000	92	258	4,824	15.50	89.9	50.8	18.64	9,468	117.9	5/16	143
30,001-35,000	168	263	5,482	15.82	89.9	52.6	20.77	18,505	137.4	5/15	144
35,001-40,000	208	266	6,090	15.96	90.0	50.3	22.89	25,261	158.5	5/14	146
40,001-45,000	164	267	6,518	15.99	89.9	52.2	24.48	19,843	178.1	5/15	146
45,001-50,000	86	266	7,234	15.99	89.9	51.7	27.20	9,296	196.5	5/1	149
> 50,001	19	269	7,772	16.06	90.2	47.5	28.96	2,478	217.3	5/8	153
Co-op Avg.		263	5,862	15.86	89.9	53	22.2	115,414	153		
<u>2013</u>											
< 25,000	2	273	7,305	16.18	90.7	88.5	26.56	162	98.1	5/13	176
25,000-30,000	8	284	7,273	16.54	92.0	49.4	25.64	1,253	119.9	5/8	177
30,001-35,000	30	281	7,102	16.47	91.5	42.8	25.20	3,299	137.9	5/7	169
35,001-40,000	54	276	7,065	16.22	91.3	40.2	25.57	5,427	161.5	5/7	164
40,001-45,000	1134	278	7,522	16.30	91.5	40.8	27.06	14,340	180.4	5/6	165
45,001-50,000	177	280	8,127	16.41	91.6	39.2	29.01	19,718	200.4	5/6	166
> 50,001	107	281	8,740	16.45	91.6	39.3	31.11	11,559	224.2	5/6	166
Co-op Avg.		279	7,723	16.34	91.5	41	27.7	86,154	187		