

Evaluation Tests in 1949 of Hybrid 125¹

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This is a report of the second year of evaluation tests³ involving hybrid 125, a hybrid developed by the use of cytoplasmically-inherited male-sterility⁴.

Table 1.—Data from 13 variety tests in the eastern sugar beet area in 1949.

Location	Variety	Tons per acre	Percent sugar	Percent purity	Sugar per acre
Paulding, Ohio	H. 125	21.91 a	15.59	85.05	5,811 a
	215 x 216	17.86	15.17	84.16	4,553
Paulding, Ohio	H. 125	22.59 a	15.46	85.09	5,933 a
	216 x 225	20.29	15.23	83.93	5,189
Blissfield, Mich.	H. 125	14.59	15.57 *	89.16	4,067 a
	215 x 216	13.84	14.78	86.92	3,574
East Lansing, Mich.	H. 125	15.90	13.90	79.50	3,520
	Muck variety	12.50	17.00	86.40	3,677
Merrill, Mich.	H. 125	26.38 a	16.88	88.74	7,905 a
	215 x 216	19.67	17.36	90.24	6,167
Saginaw, Mich.	H. 125	11.87	19.34	89.16	4,072
	216 x 225	11.54	19.01	90.13	3,965
Reese, Mich.	H. 125	17.83	18.19	87.01	5,670
	215 x 216	18.55	18.11	86.42	5,810
Reese, Mich.	H. 125	15.87	16.19	85.64	4,416
	215 x 216	15.68	16.34	85.25	4,404
Mason City, Iowa	H. 125	11.44	19.09	_____	4,357
	Amer. Cry. No. 3	11.17	19.09	_____	4,265
Stewart, Minn.	H. 125	17.03 a	17.81	_____	6,070 a
	Amer. Cry. No. 3	14.73	18.08	_____	5,330
Chatham, Canada	H. 125	19.17	17.16	_____	6,576
	215 x 216	16.84	17.01	_____	5,735
Wallaceburg, Canada	H. 125	13.64	16.81	_____	4,588
	215 x 216	13.89	16.45	_____	4,571
Quebec, Canada	H. 125	13.71	13.00	82.90	3,565
	215 x 216	12.05	13.40	83.30	3,229
Average	H. 125	17.07	16.54	85.81	5,120
	Standard	15.28	16.69	86.31	4,651
Difference		1.79	.15	.50	469

* Hybrid is significantly above the standard variety.

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⁴ Summary of the 1948 Evaluation Tests of Sugar Beet Varieties Developed in Michigan. Kohls, H. L. Proceedings of the American Society Sugar Beet Technologists. Fifth Regional Meeting, Detroit, Michigan. 1948.

Data from 25 locations, 13 in the eastern and 12 in the eastern slope area, are shown in Tables 1 and 2.

In the eastern area, Table 1, hybrid 125 has an average of 1.79 tons per acre and 469 pounds of sugar per acre more than the commercial variety commonly grown. This is an increase of 12 percent in tonnage and 10 percent in sugar per acre. These percentages are very close to those reported for 1948. Hybrid 125 shows no advantage over the commercial variety at Reese and East Lansing (on muck soil) in recoverable sugar per acre, which confirms the data a year ago at these two locations.

Table 2.—Data from 12 variety tests in the eastern slope sugar beet area in 1949.

Location	Variety	Tons per acre	Percent sugar	Total sugar per acre
Ault, Colo.	H. 125	21.28	17.58	7,496
	Focal	21.75	17.88	7,778
Eaton, Colo.	H. 125	24.95	16.50	8,009
	G. W. 59	24.27	15.99	7,979
Fort Collins, Colo.	H. 125	15.18	15.76	4,785
	G. W. 59	15.85	15.51	4,917
Fort Collins, Colo.	H. 125	18.70 b	13.99b	5,243 b
	Focal	20.79	15.20	6,332
Fort Collins, Colo.	H. 125	23.39	16.96 b	7,931 b
	Local	23.83	17.71	8,425
Fort Morgan, Colo.	H. 125	25.64	15.97	8,189
	G. W. 59	25.89	15.07	7,803
Longmont, Colo.	H. 125	27.46	14.86	8,161
	G. W. 59	28.21	14.74	8,316
Rocky Ford, Colo.	H. 125	24.97	14.01 b	7,480
	Amer. Cry. No. 1	25.46	14.69	7,015
Gering, Neb.	H. 125	20.66 a	16.85	6,982 a
	G. VV. 59	18.67	16.65	6,217
No. Platte, Neb.	H. 125	25.81	13.61	7,025
	G. W. —	25.56	13.46	6,881
Scottsbluff, Neb.	H. 125	20.25	16.10 a	6,521 a
	G. W. 59	19.55	15.21	5,947
Torrington, VVyo.	H. 125	22.72	13.59	6,217
	40249-0	23.84	14.07	6,707
Average	H. 125	22.58	15.48	7,002
	Standard	22.81	15.52	7,026
Difference		.23	.04	—

^a Significantly above the standard variety.

^b Significantly below the standard variety.

In the eastern slope area, Table 2, hybrid 125 shows no advantage over the commercial varieties in most of the tests. Scottsbluff and Gering, Nebraska, are the two exceptions where it has a definite advantage over the standard variety.

In summary, tests in 25 locations show that hybrid 125 is well adapted in the eastern area. No serious defects are apparent and in some localities in this area it outyields significantly the commercial variety.