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## Tomato Variety Trials

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TOMATO VARIETY TRIALS

1950

By  
S. Cook

Progress Report by F B J 49

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South Dakota Agriculture Experiment Station

Brookings, South Dakota

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## TOMATO VARIETY TRIALS

Trial tests of hybrids developed at the South Dakota Experiment Station were compared with the leading standard varieties adapted to the Plains Area. These tests have been conducted at three different locations for the past two years. During both years some of the hybrids have yielded consistently more than the standard varieties.

In spite of the cool summer, the tomatoes gave fairly good yields of ripe fruit at the three different locations in the state. Redfield was the only location that was furrow, irrigated and those at Brookings and Yankton were not irrigated. The plantings in the field were made May 27th at Brookings, May 31st at Yankton and June 10th at Redfield and were replicated thrice at each location. Each plot consisted of 12 plants. Sioux appeared to be the leading standard variety from the stand point of total yield of ripe fruit and percent of marketable fruit and was thus used for comparison with the hybrids.

Siouxann was consistently the highest yielding hybrid and significantly a higher producer of fruit than Sioux at all three locations, (see following table). At Redfield, ten of the numbered hybrids yielded significantly higher at 1% level than the highest yielding standard variety Sioux. This difference in ripe fruit yields is primarily due to earlier maturity of the hybrids. The results might have been more comparable with yields obtained at Brookings and at Yankton if the plantings had been made 10-14 days earlier.

It is evident from these tests that one may expect more ripe tomatoes from selecting an early hybrid such as Siouxann.

1950 TOMATOES - TOTAL YIELD OF RIPE FRUIT

VARIETY	AVERAGE YIELD PER PLOT IN POUNDS 1/		
	BROOKINGS	REDFIELD	YANKTON
Hybrid # 01	149.05	117.72**	167.53
Hybrid # 03	145.00	80.98	160.45
Hybrid # 04	163.32	119.70**	152.57
Hybrid # 06	170.18	76.87	197.14*
Hybrid # 09	138.72	83.08	166.09
Hybrid # 10	164.63	117.15**	158.14
Hybrid # 12	163.08	75.08	159.31
Hybrid # 13	175.77*	75.93	201.68*
Hybrid # 14	141.78	43.03	130.69
Hybrid # 15	150.62	103.28**	170.95
Hybrid # 20	123.72	116.82**	131.15
Hybrid # 23	161.20	74.83	172.69
Hybrid # 25	175.01*	83.22	186.39
Hybrid # 26	86.68	63.75	154.73
Hybrid # 29	150.88	66.37	170.49
Hybrid # 31	182.93*	104.10**	148.08
Hybrid # 39	168.72	68.60	136.44
Hybrid # 40	128.52	109.60**	157.61
Hybrid # 42	143.62	62.78	154.38
Hybrid # 43	159.37	97.77*	172.10
Hybrid # 52	155.25	109.73**	138.98
Hybrid # 56	128.92	50.22	163.95
Hybrid # 57	157.42	49.57	162.27
Hybrid # 60	167.50	113.30**	164.25
Hybrid # 62	146.98	---	---
Hybrid # 63	182.25*	96.97*	177.64
Hybrid # 65	89.17	50.33	156.72
Hybrid # 70	138.22	79.87	166.58
Hybrid # 72	126.68	76.60	163.58
Hybrid # 74	100.03	33.77	141.17
Hybrid # 82	151.35	82.93	168.14
Hybrid # 92	132.64	65.98	164.65
Hybrid # Siouxann	173.82*	128.40**	207.85*
Earliana	123.1	66.53	170.90
Firesteel	115.33	49.93	162.84
Sioux	137.40	67.27	158.78
Stokesdale	77.32	36.05	135.49
Average	144.23	80.51	162.56
*L.S.D. 5% over Sioux	31.68	26.53	37.57
**L.S.D. 1% over Sioux	42.07	35.23	49.89

1/ Convert to tons per acre by moving the decimal point one digit to the left.