

Oakes Irrigation Research Site

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Table 1. [Misc bean.](#)

Table 2. [Navy bean.](#)

Table 3. [Pinto bean.](#)

Dry Edible Bean Variety Trials

L. Besemann and H. Eslinger

Dry edible beans play a significant role in irrigated rotations in southeastern North Dakota. As universities and private companies develop new varieties it is important to test them upon their release.

MATERIALS AND METHODS

Soil:	Gardena loam and Embden loam; pH = 7.1; 2.2% organic matter; soil N 17 lbs/acre; soil P, soil K and soil-S were very high.
Previous crop:	2013 - potato.
Seedbed preparation:	Spring conventional tillage.
Planting:	May 30 in 30-inch rows.
Plots:	Plots were 17 ft long by 7.5 ft (3 rows) wide. The study had four replications.
Fertilizer:	Broadcast 25 lbs N/acre, 44 lbs P ₂ O ₅ /acre, 47 lbs K ₂ O/acre and 19 lbs S/acre as 10-18-19-8 April 21.
Irrigation:	Overhead sprinkler irrigation as needed.
Pest control:	Trust (1 pt/acre) May 29, Basagran (1.5 pt/acre) + COC (1.25% v/v) June 24, Raptor (4 oz/acre) + NIS (0.25% v/v) + AMS (1 lb/10 gal) July 7 and Section 2EC (8 oz/acre) + COC (1 pt/acre) July 9 for weed control. Endura (8 oz/acre) July 17 and July 24, T-Methyl (26 oz/acre) July 31 for disease control. Kendo (3 oz/acre) July 17 for insect control.
Harvest:	Hand harvested bean varieties September 15 to September 22 as they matured. Harvest area for all bean varieties was 17 feet of the middle row. Beans were threshed with a stationary plot thresher September 17 to September 23.

Table 1. Misc Bean Variety Trial at the Oakes Irrigation Research Site in 2014.

Variety	Market Class	Days to PM	Seeds/ Pound	Seed Weight	Test Weight	Seed Yield			2 or 3-yr. Avg.
						2014	2013	2012	
				grams/100	lb/bu	----- lb/ac -----			
Eclipse	Black	95.3	2269	20.0	61.5	2682	3130	3764	3192
Merlot	Small Red	100.0	1190	38.1	57.5	2727	2713	4072	3171
Sedona	Pink	98.0	1006	45.1	56.3	2870	3226	4330	3475
Loreto	Black	98.0	2264	20.1	61.6	2576	2880	--	2728
Rio Rojo	Small Red	100.3	1340	33.9	65.0	3186	3285	--	3236
Montcalm	Kidney Bean	93.8	826	55.0	54.3	1891	--	--	--
Pink Panther	Kidney Bean	84.8	809	56.1	50.7	1132	--	--	--
Rosetta	Pink	91.8	1213	37.4	60.1	2707	--	--	--
Mean		96.3	1261	41.3	58.0	2455	--	--	--
C.V. (%)		1.2	2.3	2.5	1.5	6.5	--	--	--
LSD 0.10		1.4	35	1.3	1.0	191	--	--	--
LSD 0.05		1.7	42	1.5	1.2	230	--	--	--

Planting Date = May 30; Harvest date = September 15; Previous Crop = Potato

Table 2. Navy Bean Variety Trial at the Oakes Irrigation Research Site in 2014.

Variety	Days to PM	Seeds/ Pound	Seed Weight	Test Weight	Seed Yield			3-yr. Avg.
					2014	2013	2012	
				grams/100	----- lb/ac -----			
HMS Medalist	101.0	2496	18.2	63.0	2874	3320	2205	2800
Avalanche	97.3	2179	20.9	62.6	2463	2513	2341	2439
Ensign	95.3	2136	21.3	62.1	2936	3137	2478	2851
Vista	110.3	2333	19.5	63.3	2750	3363	2327	2813
T9905	101.0	1921	23.6	62.2	3321	3883	2855	3353
Norstar	100.5	2430	18.7	64.8	2469	2199	1573	2080
Mean	100.9	2249	20.3	63.0	2802	--	--	--
C.V. (%)	0.8	2.4	2.5	1.1	6.0	--	--	--
LSD 0.10	1.0	66	0.6	0.9	208	--	--	--
LSD 0.05	1.2	80	0.8	1.1	253	--	--	--

Planting Date = May 30; Harvest date = September 15; Vista = September 22; Previous Crop = Potato

Table 3. Pinto Bean Variety Trial at the Oakes Irrigation Research Site in 2014.

Variety	Days to PM	Seeds/ Pound	Seed Weight grams/100	Test Weight lb/bu	Seed Yield			3-yr. Avg.
					2014	2013	2012	
					----- lb/ac -----			
LaPaz	96.3	1261	36.0	60.6	3116	3440	3340	3298
Lariat	111.8	1062	42.8	58.1	3209	3659	3411	3427
Stampede	95.0	1031	44.0	57.6	3046	3020	2923	2996
Maverick	100.5	1026	44.3	57.6	2955	3206	3002	3054
ND-307	101.5	933	48.7	55.9	3105	--	--	--
Windbreaker	89.3	1040	43.7	57.8	3168	3630	3125	3308
Sinaloa	100.0	1140	39.8	60.3	3152	--	--	--
Mean	99.8	1059	43.1	58.4	3119	--	--	--
C.V. (%)	1.0	3.5	3.6	1.0	6.3	--	--	--
LSD 0.10	1.2	44	1.8	0.7	236	--	--	--
LSD 0.05	1.5	53	2.2	0.9	284	--	--	--

Planting Date = May 30; Harvest date = September 15; Lariat = September 22; Previous Crop = Potato



Dry edible bean (navy) trial.

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