

Dry Bean Response to Planting Dates, Carrington

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A field study was initiated in 2012 at the NDSU Carrington Research Extension Center to examine the response of selected pinto and black bean cultivars to planting dates. Experimental design was a randomized complete block with split-plot arrangement (whole plot = two market types: 'Lariat' pinto and 'Eclipse' black; and split plots = three planting dates: May 17 and 30, and June 13) with four replications. The dryland experiment was conducted on a conventionally-tilled Heimdal-Emrick loam soil. Dry bean was planted with a John Deere 71 2-row flex planter in 30-inch rows.

Plants were hand pulled and placed in windrows on September 18, and seed harvested with a plot combine on September 26.

Averaged across planting dates, plant stand (early season) was excellent for both market types and yield was similar (Table 1). Across market types, early planted beans required 13 days for emergence compared to seven days for emergence with the mid- and late-planted beans. The period from plant emergence to physiological maturity for the early-, mid- and late-planting dates was 81, 78 and 83 days, respectively. Plant stand tended to decrease with delay in planting date. Seed yield was similar among planting dates. Interactions for cultivars and planting dates were statistically significant for all factors except stand. Delayed planting tended to increase pinto yield and decrease black yield.

Table 1. Dry bean response to planting dates, Carrington, 2012.

Treatment	Plant					
	Emergence	Flower	Canopy Closure	Physiological Maturity	Stand	Seed Yield
	Jday	Jday	Jday	Jday	plt/A	lb/A
Market type:						
Pinto (Lariat)	161	196	205	243	80,015	2515
Black (Eclipse)	160	196	220	239	91,415	2655
LSD (0.05)	1	NS	3	2	4,785	NS
Planting date:						
early (5/17/2012)	151	190	202	232	88,150	2600
mid (5/30/2012)	158	194	211	236	86,325	2571
late (6/13/2012)	172	204	217	255	82,670	2585
LSD (0.05)	1	1	3	3	NS	NS
Market type x planting date:						
Pinto - early	152	189	202	233	83,335	2242
Black - early	151	191	no data	231	92,965	2958
Pinto - mid	158	194	205	236	81,010	2424
Black - mid	158	194	217	236	91,635	2717
Pinto - late	172	204	210	260	75,700	2879
Black - late	171	204	223	251	89,645	2290
LSD (0.05)	1	1	5	4	NS	690
Mean	160	196	211	241	85,715	2585
C.V. (%)	0.2	0.2	2.1	1.1	6.4	17.7