

MICHIGAN DRY BEAN PERFORMANCE TRIALS

2025

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Michigan Dry Bean Performance Trials 2025

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Author

Scott Bales, Dry Bean Specialist
Department of Plant, Soil, and Microbial Sciences
Michigan State University
Email: balessco@msu.edu
Phone: 989-262-8550, ext. 2

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Introduction

In 2025, Michigan State University researchers and Michigan dry bean producers tested 185 lines from 11 market classes of dry beans. The trial plots (Table 1) were placed in 6 locations across 5 Michigan counties: Bay, Huron, Montcalm, Sanilac, and Tuscola (2 sites).

Small- and medium-seeded beans were tested in Bay, Huron, Sanilac, and Tuscola counties. Black beans (small-seeded beans) were also tested in Montcalm County. Large-seeded beans were tested in Montcalm and Tuscola counties.

This report summarizes the results of the trials. Please contact Scott Bales (phone 989-262-8550, extension 2; email balessco@msu.edu) with questions about the 2025 performance trials and suggestions for the 2026 trials.

Table 1. 2025 research trial conditions: locations, grower co-operators, planting dates, total accumulated growing degree days (GDD), and total precipitation.

County	Grower co-operator	Planting date	Total GDD ^a	Total precipitation (inches)
Bay	Weiss Farms	May 31	2,051	8.3"
Huron	Richmond Brothers	June 6	1,937	12.9"
Montcalm	Waldron Farms	June 10	1,969	8.1" + Irrigation
Sanilac	Stoutenburg Farms	June 2	1,967	8.7"
Tuscola	Zwerk and Sons	June 5	2,072	8.4"
Tuscola	Saginaw Valley Research & Extension Center (kidney beans)	May 31	2,032	10.9"

Note. Weather data was retrieved from the Michigan Automated Weather Network (MAWN) and MSU Enviroweather stations nearest to the performance trial. All weather data is from June 1 through September 15.

^a Growing degree days (GDD) were calculated using the following equation: $([MAX + MIN] \div 2) - 50 = GDD$

Methods

Dry beans were seeded in four-row plots that measured 6.6' wide by 24' long, with 20" rows. Each entry was replicated four times. All trial plots were designed as randomized complete blocks (RCB). (RCB is a standard agricultural trial design in which entries are randomly assigned to groups or blocks, and the blocks are randomly repeated. The goal of the replication is to control for variables that might affect an entry's yield, such as soil nutrient levels [Table 2], pest loads, and variability in soil textures.)

Trials received industry standard seed treatments, fertilization, and weed control applications at labeled rates. Yield data was obtained by direct harvest for small- and medium-seeded beans. Large-seeded beans were pulled by a two-row Pickett bean puller and then mechanically threshed to prevent harvest loss. Following harvest, samples were cleaned, weighed, and moisture tested.

Table 2. Soil test information from the 2025 trial locations, including the percentage of organic matter, soil type, soil pH, and soil cation exchange capacity (CEC). All macro- and micronutrients were sufficient for dry bean production.

Location	Percentage of organic matter	Soil type	Soil pH	Soil CEC
Bay	2.7	Sandy clay loam	7.0	12.3
Huron	2.0	Sandy clay loam	7.8	12.0
Montcalm	1.5	Loamy sand	7.3	5.1
Sanilac	2.0	Sandy clay loam	7.7	8.6
Tuscola (Zwerk and Sons)	2.7	Clay loam	7.9	15.5
Tuscola (SVREC)	2.2	Sandy clay loam	7.8	15.1



Results

Tables 3 through 12 provide agronomic information such as flowering (days after planting), plant maturity, plant height, and lodging score. Plant maturity is rated visually in days after planting (DAP) for all locations. Lodging is rated on a scale of 1 to 5, with 1 indicating that the entry was completely erect in the field at harvest and 5 indicating that it was flat on the ground with stems and pods touching the soil surface.

The tables also present each entry's yield results in pounds per acre (Lbs./A) adjusted to 18% moisture.

The combined average yield for each entry across all sites in 2025 is also included. (**Note:** If an entry was grown under different production systems [irrigated versus dry land] at different sites, the combined yield was not calculated.) When possible, two- and three-year average yields were also calculated across locations. For example, the three-year average yield of a navy bean entry (Table 3) includes data from 2023, 2024, and 2025 at four locations per year (12 site-years).

The last three rows of the agronomic and yield results tables list the trial average (mean), least significant difference (LSD), and coefficient of variation (CV), respectively, for the data in each column.

The entry with the **highest** value in each yield column is followed by two asterisks (**). Any yields listed in the same column that are not significantly different from the highest yield are noted with one asterisk (*). This means that if two entries in the same column are followed by either one or two asterisks, the difference in values between the entries is not statistically significant.

Table 13 lists the sources of dry bean varieties tested in 2025. The entries are organized by bean market class.



Table 3. Navy bean agronomic and yield results.

Navy bean entry	Flowering (DAP)	Maturity (DAP)	Lodging (1-5)	Bay (Lbs./A)	Huron (Lbs./A)	Sanilac (Lbs./A)	Tuscola (Lbs./A)	1-year avg. (Lbs./A)	2-year avg. (Lbs./A)	3-year avg. (Lbs./A)
14092	44	96	1.0	2,830	3,188	1,880	2,782	2,874 ^a	3,011	NA
21102	46	93	1.0	2,771	2,804	1,512	2,578	2,608	2,497	NA
21106	45	97	1.5	3,131*	2,766	1,518	2,655	2,899	NA	NA
21108	47	99	1.5	2,735	2,693	1,715	2,432	2,692	2,679	NA
Argosy	46	102	3.5	2,882	3,368	2,025*	3,469	3,295	3,204	3,120*
Armada	46	97	2.0	3,348*	3,461	1,733	3,331	3,227	3,041	3,207**
AuSable	47	93	1.5	2,716	3,058	1,675	2,746	2,893	2,821	2,770
Blast	46	98	3.0	3,209*	3,572	1,696	3,181	3,381	3,076	NA
Blizzard	46	94	1.5	3,406*	3,262	1,466	3,013	3,252	2,984	3,156*
EX2111-N	47	97	2.5	2,960	3,136	1,461	3,259	3,104	2,963	2,846
EX-712302	45	96	3.0	2,789	2,801	1,478	3,196	2,900	NA	NA
EX-712310	46	97	2.5	2,695	2,811	1,330	2,917	2,881	NA	NA
EX-712315	46	96	2.5	2,017	2,631	1,271	2,769	2,455	NA	NA
EX-712316	47	95	3.5	2,905	2,887	1,501	3,114	2,993	NA	NA
EX-712317	46	97	3.5	2,694	3,281	1,684	3,018	3,016	NA	NA
HMS Bounty	47	98	1.5	3,352*	2,292	1,628	2,610	2,656	2,507	2,821
HMS Medalist	46	98	2.5	2,844	3,260	1,819	2,561	2,883	2,900	3,137*
Liberty	46	100	3.0	2,666	3,278	1,672	2,666	2,775	2,742	2,932*
N22610	47	98	1.0	2,779	3,930*	2,034*	3,979	3,510*	NA	NA
N22616	48	97	1.5	3,628**	3,905*	2,113*	3,674	3,618*	3,179	3,150*
N22622	47	96	1.5	3,217*	3,715*	2,176*	3,832	3,557*	3,453*	NA
N22623	46	95	1.5	3,430*	3,439	1,792	3,411	3,529*	3,124	NA
N23706	47	98	1.5	3,614*	3,956**	1,700	3,848	3,805**	3,296*	NA
N23717	47	98	3.0	3,034	3,687*	2,024*	3,710	3,514*	NA	NA
N24847	47	94	1.0	3,526*	3,464	2,375**	3,822	3,509*	NA	NA
N24851	47	95	1.0	3,355*	3,499	2,053*	3,643	3,542*	NA	NA
Nautica	48	97	1.5	2,643	3,368	1,727	3,472	3,063	2,986	2,951*
ND Polar	48	97	1.0	2,986	3,504	1,885	3,827	3,355	2,807	2,751
OAC Charm	46	100	3.0	2,047	3,088	1,952	3,936	3,204	2,951	NA
Steam	46	99	2.5	2,518	3,652*	2,082*	4,603**	3,692*	3,647**	NA
T9905	50	101	3.5	1,827	2,553	1,514	2,843	2,436	2,610	2,854
Valiant	44	96	1.0	2,585	2,922	1,443	3,053	2,883	2,725	2,997*
Victory	47	96	2.0	3,075*	3,233	1,677	3,062	3,069	2,993	3,205*
MEAN	46	97	2.0	2,901	3,226	1,746	3,243	3,123	2,967	2,993
LSD(0.05)	NA	NA	NA	579	383	376	324	356	397	295
CV	NA	NA	NA	17.0%	10.1%	18.3%	8.5%	16.9%	26.8%	23.6%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

^a Due to poor trial quality this season, Sanilac County yield averages were not included in the one-year average.



Table 4. Black bean agronomic and yield results.

Black bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1-5)	Bay (Lbs./A)	Huron (Lbs./A)	Montcalm (Lbs./A)	Sanilac (Lbs./A)	Tuscola (Lbs./A)	1-year avg. (Lbs./A)	2-year avg. (Lbs./A)	3-year avg. (Lbs./A)
13505	47	95	26	1.5	3,470	2,939	3,520	2,043	3,277	3,250 ^a	NA	NA
16598	47	97	24	2.5	3,249	3,020	3,902*	1,526	2,619	3,206	NA	NA
17746	47	97	27	3.0	3,570*	3,436	3,809*	2,331	3,006	3,398	3,220	NA
17751	47	96	24	2.0	3,931*	3,673*	3,670	1,899	3,190	3,742*	3,358*	3,281
17764	47	98	20	3.5	3,159	3,270	4,317**	1,918	2,959	3,542	NA	NA
21650	46	97	22	3.8	3,369	3,198	3,650	2,025	3,063	3,362	3,137	NA
21702	46	98	27	2.0	3,475	3,802*	4,265*	2,869**	3,592	3,806*	3,578*	NA
21703	47	97	24	2.3	3,780*	3,322	3,961*	2,322	3,381	3,497	NA	NA
21723	47	94	20	1.3	3,263	3,360	3,427	1,976	2,954	3,317	3,142	NA
B2002-1-3	47	97	27	2.3	3,035	3,315	2,802	2,001	3,714*	3,266	3,285*	NA
B22041	47	95	24	2.0	3,674*	3,402	3,750	1,647	3,266	3,490	3,381*	3,491*
B22042	48	95	20	1.3	3,348	3,076	2,683	2,054	3,433	3,062	3,365*	NA
B22062	47	97	26	1.3	3,518	3,232	3,927*	2,593*	3,744*	3,549	3,433*	NA
B22854	47	96	22	2.3	3,771	3,208	3,373	2,275	3,811*	3,481	3,446*	3,358*
B23911	48	97	27	3.0	3,181	3,337	3,405	1,979	3,655	3,389	3,343*	NA
B23949	48	94	28	1.3	2,868	3,251	3,254	1,809	3,258	3,134	3,179	NA
B24120	47	94	26	2.7	3,214	3,904*	3,245	1,557	3,913*	3,560	NA	NA
B24122	47	97	27	1.0	3,204	3,600*	3,232	1,941	3,849*	3,403	NA	NA
B24180	47	96	23	1.3	3,444	3,617*	3,559	1,594	4,009**	3,616*	NA	NA
B24212	48	97	28	1.7	3,287	3,290	3,449	2,153	3,476	3,397	NA	NA
B7071259	48	98	30	2.0	2,903	3,479	3,909*	1,879	3,400	3,417	3,317*	3,478*
B7072252	48	96	28	2.3	3,162	3,499	4,005*	1,960	3,524	3,632*	3,202	3,336*
B7072269	48	96	26	2.7	3,094	3,882*	3,833*	2,136	3,768*	3,659*	3,185	3,273
B18094173	48	96	24	2.7	2,829	3,566*	3,418	2,150	3,204	3,213	3,016	3,167
Black Bear	47	99	22	3.0	3,817*	2,670	3,898*	1,584	3,092	3,328	3,041	3,134
Black Pearl	47	97	24	1.7	3,609*	3,484	3,531	2,514*	3,279	3,424	3,277*	3,144
Black Tails	47	96	24	2.0	3,075	2,867	3,272	1,821	3,342	3,084	3,003	2,930
BlackBeard	48	98	28	2.3	3,292	2,897	3,311	1,774	3,199	3,195	3,081	3,247
Kona	49	97	27	2.3	4,065**	3,939**	3,343	2,427*	3,984*	3,876**	3,695**	3,614**
ND Galaxy	47	94	25	1.7	2,885	2,682	3,171	1,345	3,289	3,056	NA	NA
Nimbus	49	100	23	2.7	3,708*	3,518*	3,862*	2,092	3,026	3,604*	3,288*	3,289*
Slate	47	96	25	2.0	3,153	2,868	3,623	1,779	3,173	3,249	NA	NA
Spectre	49	100	24	2.7	3,360	3,020	3,470	1,702	2,953	3,215	3,014	3,092
Umbra	49	100	22	2.7	2,919	3,608*	4,118*	1,702	3,535	3,600*	3,422*	3,359*
Zenith	47	98	20	2.3	3,519	3,438	2,770	2,081	3,226	3,165	3,211	3,096
MEAN	47	97	25	2.2	3,348	3,334	3,564	1,976	3,376	3,405	3,266	3,269
LSD _(0.05)	NA	NA	NA	NA	520	428	533	488	314	300	418	326
CV	NA	NA	NA	NA	13.2%	10.9%	12.7%	18.1%	7.9%	15.1%	28.2%	26.2%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

^a Due to poor trial quality this season, Sanilac County yield averages were not included in the one-year average.



Table 5. Small red and pink bean agronomic and yield results.

Small red & pink bean entry	Flowering (DAP)	Maturity (DAP)	Lodging (1-5)	Bay (Lbs./A)	Huron (Lbs./A)	Sanilac (Lbs./A)	Tuscola (Lbs./A)	1-year avg. (Lbs./A)	2-year avg. (Lbs./A)	3-year avg. (Lbs./A)
16686	46	98	4.0	3,611	3,946*	1,734	3,288	3,634 ^a	3,281*	3,323*
17822	48	99	3.7	3,792*	4,138*	2,054*	3,375	3,824*	3,360*	3,321*
17837	47	97	2.7	4,103*	3,700	2,088*	2,786	3,567	3,279*	3,345*
17848	47	97	3.7	3,880*	3,908*	2,278*	3,707*	3,835*	3,347*	NA
17851	47	98	4.0	3,661	4,149*	1,914*	3,992**	3,962*	3,233*	NA
19837	45	94	2.5	3,174	3,690	1,775	2,503	3,160	3,120*	NA
Coral ^b	46	99	2.5	3,516	3,836	1,216	3,219	3,602	3,341*	3,056*
ND Rosalind ^b	47	99	3.5	3,951*	4,086*	1,549	3,963*	4,000**	3,455**	NA
ND151006-2	46	99	2.5	3,331	3,817	1,667	3,121	3,443	NA	NA
OAC Rosito	48	97	2.0	3,085	3,119	1,454	3,135	3,012	NA	NA
R22703	46	95	1.7	3,473	3,511	1,630	3,476	3,414	3,297*	NA
R22710	47	98	3.0	3,664	3,976*	1,382	3,940*	3,822*	3,423*	NA
R22714	45	97	2.7	3,837*	3,719	1,767	3,854*	3,724*	NA	NA
R23804	46	98	3.3	3,942*	3,973*	2,335**	3,761*	3,951*	NA	NA
USDA Lava	46	95	2.7	3,231	2,883	1,620	2,649	2,847	NA	NA
Viper	46	97	3.7	4,169**	4,272**	1,728	3,254	3,792*	3,347*	3,346**
MEAN	46	97	3.0	3,651	3,790	1,762	3,357	3,599	3,317	3,256
LSD_(0.05)	NA	NA	NA	423	409	440	322	293	412	332
CV	NA	NA	NA	9.7%	9.1%	21.0%	8.0%	12.0%	24.3%	24.7%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

^a Due to poor trial quality this season, Sanilac County yield averages were not included in the one-year average. ^b Pink bean variety.



Table 6. Conventional and slow darkening pinto bean agronomic and yield results.

Pinto bean entry	Flowering (DAP)	Maturity (DAP)	Lodging (1-5)	Bay (Lbs./A)	Huron (Lbs./A)	Sanilac (Lbs./A)	Tuscola (Lbs./A)	1-year avg. (Lbs./A)	2-year avg. (Lbs./A)	3-year avg. (Lbs./A)
Bronco ^a	47	98	4.0	1,694	2,556	1,372	2,877	2,318 ^b	2,527	NA
Cancun	47	96	2.0	3,456*	2,728	2,045	3,561	3,352	2,881	NA
Charro	46	98	2.5	3,332*	3,674**	2,131	4,246*	3,772**	3,483**	3,603**
Cowboy	47	93	2.0	3,133	2,846	2,032	3,324	3,118	3,023	NA
Diamondback ^a	47	93	2.0	3,107	2,278	1,678	2,947	2,693	2,818	2,714
Eternal ^a	49	101	4.0	3,275*	3,239*	1,735	4,258*	3,670*	3,122*	NA
Gleam ^a	44	94	2.0	3,144	3,445*	1,780	3,930	3,540*	3,029	3,033
Mystic ^a	45	94	3.0	2,826	2,942	1,685	3,066	3,007	2,936	2,976
ND Falcon	48	95	2.0	2,970	2,849	1,987	4,102	3,376	3,029	2,885
ND Rodeo ^a	44	97	3.5	2,511	3,352*	2,028	3,598	3,103	3,259*	3,309*
P22103	47	96	2.5	3,167	2,927	2,001	3,564	3,347	NA	NA
P22204	47	96	2.5	3,422*	2,988	2,347	3,954	3,496*	NA	NA
P23311	47	96	2.0	3,821**	3,286*	2,175	3,692	3,534*	3,350*	NA
P24402	48	98	4.0	2,924	3,669*	2,246	4,370**	3,541*	NA	NA
Rattler	46	94	1.5	3,304*	2,686	1,465	3,122	3,085	2,950	3,011
Shine ^a	44	94	2.5	2,965	2,771	1,893	3,104	3,063	3,080*	NA
SV6139GR	44	92	1.0	2,858	2,549	1,532	2,941	2,865	2,715	2,834
Toast	46	93	3.5	2,721	3,517*	2,852**	4,073	3,340	NA	NA
USDA Cody	46	97	3.5	3,400*	2,531	1,600	3,391	2,994	NA	NA
Vibrant ^a	44	96	2.5	3,244	3,353*	1,846	3,378	3,104	3,036	3,072
MEAN	46	96	2.6	3,064	3,009	1,919	3,575	3,216	3,018	3,048
LSD_(0.05)	NA	NA	NA	573	455	399	239	388	430	323
CV	NA	NA	NA	15.8%	12.7%	17.5%	9.4%	17.8%	28.3%	25.3%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface). ^a Slow darkening pinto variety. ^b Due to poor trial quality this season, Sanilac County yield averages were not included in the one-year average.

Table 7. Great northern bean agronomic and yield results.

Great northern bean entry	Flowering (DAP)	Maturity (DAP)	Lodging (1-5)	Bay (Lbs./A)	Huron (Lbs./A)	Sanilac (Lbs./A)	Tuscola (Lbs./A)	1-year avg. (Lbs./A)	2-year avg. (Lbs./A)	3-year avg. (Lbs./A)
Eiger	47	98	3.0	3,400*	3,704	1,785**	3,466*	3,500 ^a	3,127*	3,224**
G22004	46	100	2.0	4,047**	4,035**	1,575*	3,534**	3,878**	3,526**	NA
G23108	46	96	2.0	3,715*	2,891	1,717*	3,513*	3,386	NA	NA
ND Pegasus	45	97	3.3	3,166	3,022	1,471*	2,910	3,057	3,039	2,971*
Powderhorn	46	89	3.0	2,931	2,696	1,232	2,087	2,550	2,506	2,437
MEAN	46	96	2.7	3,452	3,269	1,556	3,102	3,274	3,073	2,890
LSD_(0.05)	NA	NA	NA	704	320	357	400	318	480	341
CV	NA	NA	NA	16.1%	7.7%	18.2%	10.1%	14.2%	29.4%	27.7%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface). ^a Due to poor trial quality this season, Sanilac County yield averages were not included in the one-year average.



Table 8. Cranberry bean agronomic and yield results.

Cranberry bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1-5)	Montcalm (Lbs./A)	Tuscola (Lbs./A)	Irrigated 2-year avg. (Lbs./A)	Irrigated 3-year avg. (Lbs./A)	Dry land 2-year avg. (Lbs./A)	Dry land 3-year avg. (Lbs./A)
16756	39	93	18	2.3	2,002	2,306	2,668	2,936*	2,489	2,535
16758	38	87	14	1.0	1,862	1,878	2,312	2,668	1,857	2,015
16775	40	96	19	1.7	1,807	1,851	2,579	2,490	2,276	2,441
16816	38	86	15	2.0	1,938	2,239	2,764	2,833	2,242	2,240
151093	39	95	20	2.7	2,387*	3,032**	3,315**	3,249**	3,084**	3,246**
Amaranto	38	85	16	1.3	1,753	1,892	2,521	2,672	2,172	2,352
C24104	38	66	16	1.3	2,199	2,112	NA	NA	NA	NA
C24114	38	88	15	1.0	2,306	1,744	NA	NA	NA	NA
CR25-1	40	101	20	2.0	904	1,428	NA	NA	NA	NA
CR25-2	40	97	18	2.0	1,097	1,770	NA	NA	NA	NA
CR25-3	40	99	20	2.5	985	1,534	NA	NA	NA	NA
CR2283-8	40	97	19	1.0	1,762	1,877	NA	NA	NA	NA
CR22109-6	39	93	14	1.0	1,715	2,114	NA	NA	NA	NA
Etna	38	87	16	1.3	2,310	2,256	2,692	2,864	2,317	2,050
Jester	41	96	17	1.3	2,250	2,354	3,233*	2,758	2,660	3,016*
OAC Firestripe	40	96	18	1.0	2,377*	2,347	2,993*	3,106*	2,468	2,560
OAC Navabi	38	91	19	1.0	2,670**	2,752*	2,870	2,771	2,573	2,443
MEAN	39	91	17	1.5	1,851	2,038	2,795	2,831	2,414	2,528
LSD_(0.05)	NA	NA	NA	NA	298	427	360	314	351	425
CV	NA	NA	NA	NA	13.6%	17.7%	12.9%	13.3%	14.5%	19.1%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).



Table 9. Light red kidney bean agronomic and yield results.

Light red kidney bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1–5)	Montcalm (Lbs./A)	Tuscola (Lbs./A)	Irrigated 2-year avg. (Lbs./A)	Irrigated 3-year avg. (Lbs./A)	Dry land 2-year avg. (Lbs./A)	Dry land 3-year avg. (Lbs./A)
15916	37	90	16	1.8	3,215*	2,783*	3,293*	3,132	2,698*	2,926*
15923	38	91	16	1.8	2,873	2,211	3,197*	3,284*	2,422	2,376
20870	39	98	21	2.0	2,669	2,676*	2,927	NA	3,053**	NA
20909	38	92	17	1.5	2,140	2,806**	2,813	NA	2,842*	NA
161055	40	98	21	1.4	1,952	2,832*	3,051	NA	3,011*	NA
161082	40	96	20	1.8	2,383	2,578*	2,936	2,819	2,459	2,974*
Big Red	39	88	17	1.8	2,645	2,183	3,022	2,951	2,265	2,300
CELRK	38	89	17	1.5	2,569	2,205	3,084	2,911	2,299	2,358
K22601	40	93	17	2.8	2,766	2,810*	3,105*	NA	2,841*	NA
K22604	40	96	19	1.8	3,238**	2,803*	3,668**	3,624**	2,902*	3,195**
K23702	40	96	19	2.0	2,668	2,657*	NA	NA	NA	NA
Pink Panther	39	92	19	2.2	2,416	2,444*	2,992	3,009	2,535	2,490
Ronnie's Red	40	96	21	1.0	1,706	2,756*	2,718	2,714	2,795*	2,751
Rosie	40	96	20	1.3	1,745	2,571*	2,573	NA	2,341	NA
MEAN	39	94	19	1.8	2,499	2,594	3,030	3,057	2,655	2,681
LSD_(0.05)	NA	NA	NA	NA	350	378	5,84	409	362	338
CV	NA	NA	NA	NA	11.7%	12.2%	17.5%	16.0%	13.6%	14.6%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

Table 10. Dark red kidney bean agronomic and yield results.

Dark red kidney bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1–5)	Montcalm (Lbs./A)	Tuscola (Lbs./A)	Irrigated 2-year avg. (Lbs./A)	Irrigated 3-year avg. (Lbs./A)	Dry land 2-year avg. (Lbs./A)	Dry land 3-year avg. (Lbs./A)
15977	40	93	17	2.3	2,158	3,018*	2,881	2,503	2,871*	2,541
161156	40	90	18	2.3	3,070**	2,859*	3,846**	3,468**	2,845*	2,795*
161165	40	90	17	2.3	2,840*	2,861*	3,471*	3,210*	2,933*	3,109*
181017	40	97	20	2.8	2,765*	3,074**	3,689*	3,354*	3,124**	3,197**
181021	38	88	17	2.2	2,838*	2,546	3,546*	3,296*	2,461	2,191
Dynasty	40	95	20	2.5	2,666	2,880*	3,672*	3,226*	3,045*	2,868*
Epic	39	92	20	2.3	2,728	2,818*	3,564*	3,391*	2,783	2,644
Gallantry	39	94	18	2.3	2,897*	2,715	3,555*	3,335*	2,839*	2,569
K1920-2-3	40	96	23	3.5	2,094	1,857	3,023	NA	NA	NA
K23212	40	95	20	1.5	2,374	2,598	3,401*	NA	NA	NA
Montcalm	40	97	19	2.6	2,685	2,464	3,390*	3,232*	2,335	2,320
ND Redbarn	40	91	17	2.5	2,341	2,324	2,885	2,665	2,283	1,957
Rampart	39	92	19	2.0	2,353	2,323	3,315	3,141*	2,444	2,475
Red Hawk	39	92	17	2.3	2,511	1,972	3,148	2,843	2,114	1,980
Seattle	40	93	17	2.8	2,762*	2,814*	3,363*	3,094*	2,703	2,760*
MEAN	40	93	19	2.4	2,605	2,608	3,381	3,135	2,624	2,570
LSD_(0.05)	NA	NA	NA	NA	329	288	522	414	305	475
CV	NA	NA	NA	NA	10.6%	9.2%	15.5%	16.3%	11.7%	22.8%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).



Table 11. White kidney bean agronomic and yield results.

White kidney bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1–5)	Montcalm (Lbs./A)	Tuscola (Lbs./A)	Irrigated 2-year avg. (Lbs./A)	Irrigated 3-year avg. (Lbs./A)	Dry land 2-year avg. (Lbs./A)	Dry land 3-year avg. (Lbs./A)
201016	40	95	21	1.8	1,886 ^a	2,627**	NA	NA	NA	NA
201020	37	90	16	1.3	2,130	2,406*	NA	NA	NA	NA
201030	40	97	21	1.0	1,864	2,312	NA	NA	NA	NA
231228	41	102	25	1.0	1,018	1,736	NA	NA	NA	NA
231229	41	101	23	1.0	966	1,753	NA	NA	NA	NA
231230	40	101	24	1.0	1,050	1,716	NA	NA	NA	NA
231231	41	101	24	1.0	1,168	2,088	NA	NA	NA	NA
231232	40	100	23	1.0	1,383	2,058	NA	NA	NA	NA
231233	41	101	23	1.0	1,666	1,990	NA	NA	NA	NA
Beluga	40	99	18	2.3	2,192	1,985	2,914	2,698	2,416*	2,660*
Denali	37	90	17	1.3	2,309	2,191	3,301*	3,214*	2,545*	2,634*
K22801	38	98	20	1.5	2,001	2,258	3,123*	NA	2,627**	NA
K23908	40	97	20	1.3	2,097	2,546*	NA	NA	NA	NA
ND Whitetail	41	93	18	2.8	2,284	2,453*	3,076*	2,806	2,450*	2,655*
Snowdon	37	89	17	1.3	2,358*	2,270	3,007*	2,754	2,457*	2,415*
WK1601-1	39	93	19	2.0	2,652**	1,987	3,549**	3,459**	2,440*	2,789**
Yeti	41	98	19	2.0	1,873	2,311	NA	NA	NA	NA
MEAN	40	97	20	1.4	1,648	2,158	3,156	2,979	2,486	2,630
LSD_(0.05)	NA	NA	NA	NA	336	284	574	456	285	398
CV	NA	NA	NA	NA	17.2%	11.1%	17.0%	18.1%	11.1%	18.3*%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

^a White kidney bean entries with maturities longer than the trial mean experienced heavy wildlife browsing activity late season.



Table 12. Yellow and nuña bean agronomic and yield results.

Yellow bean entry	Flowering (DAP)	Maturity (DAP)	Plant height (inches)	Lodging (1–5)	Montcalm (Lbs./A)	Tuscola (Lbs./A)	Irrigated 2-year avg. (Lbs./A)	Irrigated 3-year avg. (Lbs./A)	Dry land 2-year avg. (Lbs./A)	Dry land 3-year avg. (Lbs./A)
Claim Jumper	41	93	18	2.5	2,261*	2,880*	3,358**	2,993**	2,742**	2,923**
DBY230-2	37	89	14	2.8	1,863	2,395	NA	NA	NA	NA
DBY231-2	38	95	15	2.3	1,694	2,755*	NA	NA	NA	NA
Honeycomb	38	92	16	1.5	2,079*	2,239	3,087*	2,904*	2,347	2,401
Motherlode	41	98	17	2.5	1,128	1,994	2,680	2,496	2,106	2,352
Noche Nuña ^a	37	98	12	3.3	2,326*	2,015	NA	NA	NA	NA
Poporito ^a	38	101	13	4.0	2,440**	1,926	NA	NA	NA	NA
Y1803-5-3	40	94	15	3.0	1,740	2,973**	NA	NA	NA	NA
Y2115-3	38	93	17	1.3	1,459	1,578	NA	NA	NA	NA
Y2033307	39	96	18	2.0	1,836	2,421	NA	NA	NA	NA
Yellowstone	40	90	15	1.8	1,563	2,191	2,843*	2,848*	2,201	2,268
Yukon Gold	40	93	17	2.0	1,414	1,853	2,988*	2,927*	2,023	2,419
YW25-1	40	96	18	2.0	2,143*	2,879*	NA	NA	NA	NA
MEAN	39	94	16	2.3	1,842	2,315	2,997	2,835	2,284	2,474
LSD_(0.05)	NA	NA	NA	NA	412	341	658	435	279	383
CV	NA	NA	NA	NA	18.7%	12.3%	18.3%	17.0%	11.9%	18.6%

Note. The **highest** yield in each column is marked with two asterisks. Any values in a column that are not statistically different from the column's two-asterisk entry are marked with one asterisk. NA = Not available. DAP = Days after planting. Lbs./A = Pounds per acre. Lodging is rated on a scale from 1 (entry was completely erect in the field at harvest) to 5 (entry was flat on the ground with stems and pods touching the soil surface).

^a Nuña variety.



2025 Sourcing Information

Table 13. Sources of dry bean entries tested in the 2025 performance trials, organized alphabetically by market class.

Entry	Market class	Source	Entry	Market class	Source
13505	Black	ProVita	OAC Firestripe	Cranberry	TVS ^f
16598	Black	ProVita	OAC Navabi	Cranberry	TVS
17746	Black	ProVita	15977	Dark red kidney	ProVita
17751	Black	ProVita	161156	Dark red kidney	ProVita
17764	Black	ProVita	161165	Dark red kidney	ProVita
21650	Black	ProVita	181017	Dark red kidney	ProVita
21702	Black	ProVita	181021	Dark red kidney	ProVita
21703	Black	ProVita	Dynasty	Dark red kidney	Gentec
21723	Black	ProVita	Epic	Dark red kidney	ProVita
B2002-1-3	Black	USDA EL ^a	Gallantry	Dark red kidney	Gentec
B22041	Black	MSU ^b	K1920-2-3	Dark red kidney	USDA EL
B22042	Black	MSU	K23212	Dark red kidney	MSU
B22062	Black	MSU	Montcalm	Dark red kidney	MSU
B22854	Black	MSU	ND Redbarn	Dark red kidney	NDSU
B23911	Black	MSU	Rampart	Dark red kidney	ProVita
B23949	Black	MSU	Red Hawk	Dark red kidney	MSU
B24120	Black	MSU	Seattle	Dark red kidney	ProVita
B24122	Black	MSU	Eiger	Great northern	MSU
B24180	Black	MSU	G22004	Great northern	MSU
B24212	Black	MSU	G23108	Great northern	MSU
B7071259	Black	ADM ^c	ND Pegasus	Great northern	NDSU
B7072252	Black	ADM	Powderhorn	Great northern	MSU
B7072269	Black	ADM	15916	Light red kidney	ProVita
B18094173	Black	ADM	15923	Light red kidney	ProVita
Black Bear	Black	ProVita	20870	Light red kidney	ProVita
Black Pearl	Black	MSU	20909	Light red kidney	ProVita
Black Tails	Black	ProVita	161055	Light red kidney	ProVita
BlackBeard	Black	ProVita	161082	Light red kidney	ProVita
Kona	Black	MSU	Big Red	Light red kidney	ProVita
ND Galaxy	Black	NDSU ^d	CELRK	Light red kidney	UC Davis ^g
Nimbus	Black	ProVita	K22601	Light red kidney	MSU
Slate	Black	ADM	K22604	Light red kidney	MSU
Spectre	Black	ProVita	K23702	Light red kidney	MSU
Umbra	Black	Gentec	Pink Panther	Light red kidney	Bayer
Zenith	Black	MSU	Ronnie's Red	Light red kidney	ProVita
16756	Cranberry	ProVita	Rosie	Light red kidney	NDSU
16758	Cranberry	ProVita	14092	Navy	ProVita
16775	Cranberry	ProVita	21102	Navy	ProVita
16816	Cranberry	ProVita	21106	Navy	ProVita
151093	Cranberry	ProVita	21108	Navy	ProVita
Amaranto	Cranberry	Bayer	Argosy	Navy	Gentec
C24104	Cranberry	MSU	Armada	Navy	ProVita
C24114	Cranberry	MSU	AuSable	Navy	MSU
CR25-1	Cranberry	USDA WA ^e	Blast	Navy	Gentec
CR25-2	Cranberry	USDA WA	Blizzard	Navy	ProVita
CR25-3	Cranberry	USDA WA	EX2111-N	Navy	TVS
CR2283-8	Cranberry	USDA EL	EX-712302	Navy	TVS
CR22109-6	Cranberry	USDA EL	EX-712310	Navy	TVS
Etna	Cranberry	Bayer	EX-712315	Navy	TVS
Jester	Cranberry	ProVita	EX-712316	Navy	TVS



Entry	Market class	Source
EX-712317	Navy	TVS
HMS Bounty	Navy	ProVita
HMS Medalist	Navy	ProVita
Liberty	Navy	ProVita
N22610	Navy	MSU
N22616	Navy	MSU
N22622	Navy	MSU
N22623	Navy	MSU
N23706	Navy	MSU
N23717	Navy	MSU
N24847	Navy	MSU
N24851	Navy	MSU
Nautica	Navy	Gentec
ND Polar	Navy	NDSU
OAC Charm	Navy	TVS
Steam	Navy	Gentec
T9905	Navy	TVS
Valiant	Navy	ProVita
Victory	Navy	ProVita
Noche Nuña	Nuña	OSU
Poporito	Nuña	OSU
Coral	Pink	MSU
ND Rosalind	Pink	NDSU
Cancun	Pinto	ProVita
Charro	Pinto	MSU
Cowboy	Pinto	ProVita
ND Falcon	Pinto	NDSU
P22103	Pinto	MSU
P22204	Pinto	MSU
P23311	Pinto	MSU
P24402	Pinto	MSU
Rattler	Pinto	Kelley Bean
SV6139GR	Pinto	Bayer
Toast	Pinto	Gentec
USDA Cody	Pinto	Central Bean
Bronco	Slow darkening pinto	TVS
Diamondback	Slow darkening pinto	Kelley Bean
Eternal	Slow darkening pinto	Hensall
Gleam	Slow darkening pinto	ProVita
Mystic	Slow darkening pinto	ProVita
ND Rodeo	Slow darkening pinto	NDSU
Shine	Slow darkening pinto	ProVita
Vibrant	Slow darkening pinto	ProVita
16686	Small red	ProVita
17822	Small red	ProVita
17837	Small red	ProVita
17848	Small red	ProVita
17851	Small red	ProVita
19837	Small red	ProVita
ND151006-2	Small red	NDSU

Entry	Market class	Source
OAC Rosito	Small red	Gentec
R22703	Small red	MSU
R22710	Small red	MSU
R22714	Small red	MSU
R23804	Small red	MSU
USDA Lava	Small red	Central Bean
Viper	Small red	ProVita
201016	White kidney	ProVita
201020	White kidney	ProVita
201030	White kidney	ProVita
231228	White kidney	ProVita
231229	White kidney	ProVita
231230	White kidney	ProVita
231231	White kidney	ProVita
231232	White kidney	ProVita
231233	White kidney	ProVita
Beluga	White kidney	ADM
Denali	White kidney	MSU
K22801	White kidney	MSU
K23908	White kidney	MSU
ND Whitetail	White kidney	NDSU
Snowdon	White kidney	MSU
WK1601-1	White kidney	USDA EL
Yeti	White kidney	Gentec
Claim Jumper	Yellow	ProVita
DBY230-2	Yellow	OSU ^h
DBY231-2	Yellow	OSU
Honeycomb	Yellow	USDA EL
Motherlode	Yellow	ProVita
Y1803-5-3	Yellow	USDA EL
Y2115-3	Yellow	USDA EL
Y2033307	Yellow	ADM
Yellowstone	Yellow	MSU
Yukon Gold	Yellow	MSU
YW25-1	Yellow	USDA WA

^a USDA-EL = U.S. Dept. of Agriculture—Agricultural Research Service, East Lansing, Michigan, site

^b MSU = Michigan State University

^c ADM = Archer-Daniels-Midland

^d NDSU = North Dakota State University

^e USDA WA = U.S. Dept. of Agriculture—Agricultural Research Service, Washington State site

^f TVS = Treasure Valley Seed

^g UC Davis = University of California, Davis

^h OSU = Oregon State University