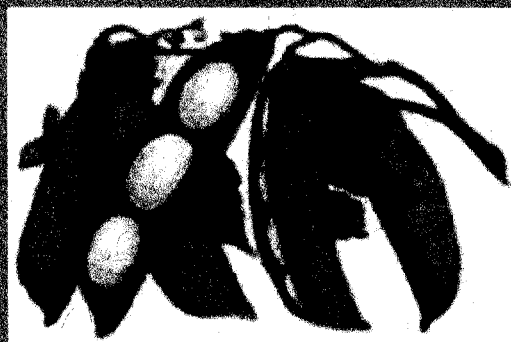


**University of Delaware**



**LIMA BEAN VARIETY TRIAL  
RESULTS**

**2000**

**Ed Kee and Tracy Wooten  
University of Delaware  
Research and Education Center  
RD 6 Box 48  
Georgetown, DE 19947**

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## **2000 University of Delaware Processing Lima Bean Variety Trial**

Ed Kee and Tracy Wootten, University of Delaware Research & Education Center  
R.D. 6, Box 48, Georgetown, Delaware 19947  
Phone: 302-856-7303; Fax 302-856-1845  
Email: [kee@udel.edu](mailto:kee@udel.edu) , [wootten@udel.edu](mailto:wootten@udel.edu)

**Purpose:** To evaluate new processing lima bean varieties for yield, maturity and quality factors under Delaware growing conditions.

**Location:** Field 12 – Research & Education Center Farm

### **Cultural Practices:**

The plots were 1 row plots, 30 feet in length with a 30-inch between row spacing and 4 seeds per foot in-row spacing. The plots were designed using the randomized complete block design with four replications. All plantings received overhead sprinkler irrigation at 1-1.5 inches of water per week.

The field was fertilized according to soil test. On June 9, 2000, 0-0-60 at 200 lbs./A was applied to the plots. The rows for the plots were marked with a Kinze planter. The plots were hand-planted on June 12, 2000. 10-34-0 and 34-0-0 were applied to the plots before planting to achieve 30 lbs./A of nitrogen starter fertilizer. Pre-emergence herbicides (Pursuit at 2 oz./A and Dual Magnum at 1.5 pints/A) were applied on June 15, 2000. The plots were sidedressed on July 10, 2000 with 30 lbs./A of nitrogen and cultivated. Lannate at 1.5 pints/A was applied on June 30, 2000 for leafhopper control. Kelthane at 1 pint/A was applied on July 17, 2000 for mite control.

### **Harvest:**

The plots were hand harvested. All plants in the 10 foot harvest section were pulled. The pods were stripped, counted, and shelled using a “Little Sheller” from Taylor Manufacturing Co., Inc. The beans were then weighed for final yield. The percent of useable, dry, flat and moldy pods were taken from the total number of pods harvested from each category in the 10 foot harvest section.

### **Results & Discussion:**

Although Bridgeton was the highest yielding baby variety in the trial, its yield was not significantly different from Eastland, 184-85, M15DM11 or Celite Select. Fordhook variety 809-01 was the highest yielding variety of the fordhook entries, but was not significantly different from F1072, F812-01 and F5116. Yields for both types of lima beans can be found on Table 1 for baby types and Table 2 for fordhook types.

We hope that you find this information informative and useful. If you have questions, please feel free to contact us.

## ACKNOWLEDGEMENTS

The authors wish to thank the following people and companies for their support, interest and guidance in the 2000 Processing Lima Bean Variety Trial.

### Participating Seed Companies

Ben Fish & Son

ASI-Seedwest

Crows Landing, CA

Twin Falls, ID

We wish to thank Victor Green, Ward Harris and the staff at the University of Delaware Research & Education Center, Georgetown for their assistance in planting, spraying, and irrigating of the trial.

The plots could not have been harvested without the assistance of the following university students: Andrew Turner, John Gordy, Rusty Tressler, Derrick Dickerson and Joe Taylor.

**Table 1. 2000 University of Delaware Processing Lima Bean Variety Trial – Yield Results for Baby Types**

Planted: June 12, 2000

Location: Field 12, University of Delaware Research & Education Center

Harvest Date	Variety	Trt. No	DAP	10 ft. Harvest Section						Seed Source
				# Plts.	Wt. of Plts.	Lbs./ Plt.	Total Lbs./A	Lbs./A Green	Lbs./A Dry	
9/5	Bridgeton	9	86	36	16	0.5	2203	1973	230	ASI-Seedwest
9/5	Eastland	13	86	32	18	0.6	1937	1735	203	
9/8	184-85	8	89	36	14	0.4	1928	1747	181	Ben Fish & Son
8/30	M15DM11	11	80	38	13	0.4	1871	1690	182	ASI-Seedwest
9/5	CEL. SEL.	2	86	33	16	0.5	1867	1667	201	Ben Fish & Son
9/4	M15BG2.3	3	85	38	18	0.5	1753	1620	132	ASI-Seedwest
9/5	4-96-DA	4	86	27	13	0.5	1738	1630	108	Ben Fish & Son
9/8	BG2-ODM10	7	89	37	17	0.5	1721	1621	100	ASI-Seedwest
8/30	4LF7T10CTS.2	5	80	36	13	0.4	1637	1512	125	ASI-Seedwest
8/28	M15	1	78	34	12	0.4	1575	1454	121	ASI-Seedwest
9/8	8-78-DA	6	89	32	15	0.5	1514	1336	78	Ben Fish & Son
9/8	328	14	89	36	13	0.4	1428	1351	77	Ben Fish & Son
8/30	M15DM11EA.1	12	80	40	10	0.3	1308	1200	108	ASI-Seedwest
8/28	12-98-DA	10	78	37	8	0.2	1202	1179	23	Ben Fish & Son
LSD 0.05				8	2	0.1	430	388	80	

**Table 2. 2000 University of Delaware Processing Lima Bean Variety Trial – Yield Results for Fordhook Types**

Planted: June 12, 2000

Location: Field 12, University of Delaware Research & Education Center

Harvest Date	Variety	Trt. No	DAP	10 ft. Harvest Section						Seed Source
				# Plts.	Wt. of Plts.	Lbs./ Plt.	Total Lbs./A	Lbs./A Green	Lbs./A Dry	
9/11	809-01	2	92	27	15	0.5	1790	1345	445	ASI-Seedwest
9/13	F1072	7	94	30	14	0.5	1625	1342	282	ASI-Seedwest
9/12	F812-01	3	93	27	13	0.5	1581	1185	397	ASI-Seedwest
9/11	F5116	1	92	20	10	0.5	1578	1256	322	ASI-Seedwest
9/12	F826-01	5	93	27	15	0.6	1427	944	483	ASI-Seedwest
9/13	F824-01	6	94	25	14	0.6	1376	1104	273	ASI-Seedwest
9/12	F821-01	4	93	23	13	0.6	1296	1005	292	ASI-Seedwest
LSD 0.05				5	3	0.1	353	268	165	

**Table 3. 2000 Lima Bean Trial Harvest Information – Suggested Maturity, Date of Harvest, Days After Planting and Percent Dry Pods at Harvest.**

Treatment	Sug. Mat.	Date	8/28	8/29	8/30	8/31	9/1	9/2	9/3	9/4	9/5	9/6	9/7	9/8	9/9	9/10	9/11	9/12	9/13	
		DAP	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	
<b>BABY</b>		%																		
M15	77		7*																	
CEL. SEL.	80										9									
M15BG2.3	83									7										
4-96-DA	80										6									
4LF7T10CTS.2	76				13															
8-78-DA	80													12						
BG2-ODM10	83													9						
184-85	80													14						
Bridgeton	83										10									
12-98-DA	80		2																	
M15DM11	78				15															
M15DM11EA.1	76				13															
Eastland											10									
328														14						
<b>FORDHOOK</b>		%																		
F5116	90																		20	
809-01	90																		20	
F812-01	90																			26
F821-01	90																			21
F826-01	90																			30
F824-01	90																			24
F1072	90																			18

\* Percent Dry Pods at Harvest

**Table 4. 2000 University of Delaware Processing Lima Bean Variety Trial – Pod Percentages for Baby Types**

Planted: June 12, 2000

Location: Field 12, University of Delaware Research & Education Center

Harvest Date	Variety	Trt. No	DAP	10 ft. Harvest Section					Seed Source
				% Useable	% Dry	% Flat	% Moldy	Total Lbs./A	
9/5	Bridgeton	9	86	86	10	4	0	2203	ASI-Seedwest
9/5	Eastland	13	86	80	10	10	0	1937	
9/8	184-85	8	89	83	14	3	0	1928	Ben Fish & Son
8/30	M15DM11	11	80	81	15	4	0	1871	ASI-Seedwest
9/5	CEL. SEL.	2	86	86	9	5	0	1867	Ben Fish & Son
9/4	M15BG2.3	3	85	85	7	8	0	1753	ASI-Seedwest
9/5	4-96-DA	4	86	83	6	11	0	1738	Ben Fish & Son
9/8	BG2-ODM10	7	89	82	9	9	0	1721	ASI-Seedwest
8/30	4LF7T10CTS.2	5	80	84	13	3	0	1637	ASI-Seedwest
8/28	M15	1	78	80	7	13	0	1575	ASI-Seedwest
9/8	8-78-DA	6	89	82	12	6	0	1514	Ben Fish & Son
9/8	328	14	89	80	14	6	0	1428	Ben Fish & Son
8/30	M15DM11EA.1	12	80	81	13	6	0	1308	ASI-Seedwest
8/28	12-98-DA	10	78	90	2	8	0	1202	Ben Fish & Son
LSD 0.05				8	5	7	0	430	



**Table 5. 2000 University of Delaware Processing Lima Bean Variety Trial – Pod Percentages for Fordhook Types**

Planted: June 12, 2000

Location: Field 12, University of Delaware Research &amp; Education Center

Harvest Date	Variety	Trt. No	DAP	10 ft. Harvest Section					Seed Source
				% Useable	% Dry	% Flat	% Moldy	Total Lbs./A	
9/11	809-01	2	92	54	20	26	0	1790	ASI-Seedwest
9/13	F1072	7	94	70	18	12	0	1625	ASI-Seedwest
9/12	F812-01	3	93	56	26	18	0	1581	ASI-Seedwest
9/11	F5116	1	92	65	20	15	0	1578	ASI-Seedwest
9/12	F826-01	5	93	47	30	23	0	1427	ASI-Seedwest
9/13	F824-01	6	94	57	24	19	0	1376	ASI-Seedwest
9/12	F821-01	4	93	50	21	29	0	1296	ASI-Seedwest
LSD 0.05				9	9	8	0	353	



June 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Jun	153	87	53	0.00	95	56
2	154	92	66	0.08	102	66
3	155	75	57	0.01	89	64
4	156	73	52	0.00	95	58
5	157	66	57	0.00	85	61
6	158	62	58	0.76	67	58
7	159	75	54	0.00	82	54
8	160	80	59	0.00	91	59
9	161	87	65	0.00	100	62
10	162	91	69	0.00	105	68
11	163	92	72	0.00	108	71
12	164	94	66	0.46	108	74
13	165	67	60	0.00	78	65
14	166	67	61	0.01	73	65
15	167	88	63	0.13	90	66
16	168	87	69	0.27	91	70
17	169	90	72	0.29	100	74
18	170	88	72	0.97	94	73
19	171	75	67	0.01	80	70
20	172	82	59	0.00	96	63
21	173	81	59	0.00	90	62
22	174	83	70	0.41	86	71
23	175	86	68	0.00	91	69
24	176	87	62	0.00	100	66
25	177	89	72	0.00	104	72
26	178	89	73	0.00	105	75
27	179	90	71	0.57	107	76
28	180	75	71	0.20	83	74
29	181	76	64	0.61	87	69
30	182	80	62	0.03	89	65
Average		81	62		91	65
Total				4.81		
YTD						
Average		62	43			
Total				20.13		

Data Collected Midnight- Midnight  
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July 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Jul	183	82	62	0.00	93	66
2	184	85	61	0.00	103	65
3	185	86	67	0.00	102	69
4	186	86	70	0.23	92	73
5	187	84	66	0.00	93	72
6	188	83	63	0.00	101	67
7	189	79	61	0.00	96	70
8	190	79	52	0.00	98	62
9	191	84	57	0.00	97	66
10	192	91	69	0.33	99	76
11	193	76	63	0.00	79	69
12	194	80	60	0.00	90	64
13	195	81	58	0.00	96	66
14	196	79	62	0.04	85	69
15	197	76	64	0.94	82	68
16	198	79	62	0.03	83	67
17	199	84	62	0.00	87	67
18	200	89	67	0.00	89	71
19	201	74	62	0.85	77	66
20	202	77	64	0.81	77	65
21	203	81	61	0.00	85	66
22	204	83	65	0.00	81	71
23	205	79	61	0.00	81	67
24	206	72	65	0.01	73	68
25	207	71	62	0.08	71	65
26	208	79	68	0.71	78	69
27	209	77	68	0.00	78	73
28	210	83	68	0.00	81	71
29	211	82	69	0.21	82	72
30	212	85	72	0.37	85	74
31	213	86	71	0.09	85	74
Average		81	64		87	69
Total				4.70		
YTD						
Average		64	45			
Total				24.83		

Data Collected Midnight- Midnight  
[Http://www.rec.udel.edu](http://www.rec.udel.edu)



August 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Aug	214	86	74	0.00	84	75
2	215	86	73	0.00	84	75
3	216	85	72	0.01	83	76
4	217	83	67	2.13	83	70
5	218	80	61	0.00	77	70
6	219	79	61	0.03	77	67
7	220	92	75	0.00	85	75
8	221	89	73	0.00	91	78
9	222	89	73	0.00	89	77
10	223	87	71	0.00	89	76
11	224	86	67	0.89	90	73
12	225	80	65	0.17	80	71
13	226	68	64	1.14	71	66
14	227	73	64	0.12	73	67
15	228	83	60	0.00	82	65
16	229	87	63	0.00	86	71
17	230	78	56	0.00	84	66
18	231	78	66	0.02	78	71
19	232	77	58	0.00	80	66
20	233	73	54	0.00	77	63
21	234	75	51	0.00	80	60
22	235	80	49	0.00	85	61
23	236	80	56	0.00	85	65
24	237	82	65	0.32	85	70
25	238	81	61	0.01	85	70
26	239	83	57	0.00	85	65
27	240	81	66	0.00	79	69
28	241	80	66	0.05	81	70
29	242	81	71	0.09	82	72
30	243	80	71	0.15	81	72
31	244	82	73	0.03	84	74
Average		81	65		82	70
Total				5.16		
YTD						
Average		64	45			
Total				29.99		

Data Collected Midnight- Midnight  
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September 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Sep	245	86	73	0.0	88	75
2	246	88	71	2.5	91	73
3	247	82	72	1.2	86	74
4	248	85	72	0.0	87	75
5	249	72	56	0.0	75	61
6	250	70	52	0.0	73	58
7	251	73	53	0.0	80	59
8	252	78	50	0.0	84	59
9	253	83	61	0.0	85	64
10	254	83	59	0.0	86	66
11	255	82	58	0.0	87	66
12	256	85	63	0.0	88	68
13	257	83	62	0.0	85	71
14	258	82	57	0.0	85	66
15	259	75	57	1.3	78	64
16	260	69	49	0.0	75	58
17	261	70	46	0.0	77	55
18	262	74	51	0.0	76	58
19	263	79	62	0.4	78	66
20	264	87	58	0.0	85	62
21	265	77	58	0.0	77	63
22	266	74	49	0.0	79	57
23	267	75	61	0.1	75	65
24	268	77	67	0.1	80	70
25	269	67	54	1.7	70	57
26	270	60	52	0.8	62	55
27	271	69	46	0.0	73	52
28	272	73	45	0.0	73	52
29	273	64	45	0.0	68	53
30	274	69	42	0.0	71	50
Average		79	59		82	65
Total				7.95		
YTD						
Average		62	43			
Total				37.94		

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**Authors:**

Ed Kee  
Extension Specialist-Vegetable Crops  
University of Delaware Research & Education Center  
R.D. 6, Box 48  
Georgetown, DE 19947  
302-856-7303  
302-856-2585 ext. 311 (direct line & voice mail)  
302-856-1845 (fax)  
E-Mail: [kee@udel.edu](mailto:kee@udel.edu)

Tracy Wootten  
Extension Associate-Vegetable Crops  
University of Delaware Research & Education Center  
R.D. 6, Box 48  
Georgetown, DE 19947  
302-856-7303  
302-856-2585 ext. 312 (direct line & voice mail)  
302-856-1845 (fax)  
E-Mail: [wootten@udel.edu](mailto:wootten@udel.edu)

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Center - Georgetown**

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