

San Joaquin County

PUMPKIN

VARIETY TRIAL - 2002



San Joaquin Delta College

and

University of California Cooperative Extension
420 South Wilson Way
Stockton California 95205-6243

Pumpkin Variety Trial

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This years plots were established in cooperation with Eldon Parker of Lockhart Seeds Inc. and Robert Schroeder of Harris Moran Seed Company at the San Joaquin Delta College school farm.

Fourteen replicated varieties were planted and one variety was planted at three different spacing intervals on June 10. The plots were 50 feet long and seed was planted on 72-inch bed spacing. The vines were drip irrigated. The area was previously an almond orchard and soil type is Delhi loamy sand. See **Table 1** for yields. Results presented in **Table 1** are to be used for comparison purposes only, as actual yields of marketable fruits were much lower than our evaluations would indicate due to the stress conditions mentioned above. For purposes of evaluating the potential of these varieties under normal conditions in San Joaquin County we chose to “ignore” the results of the heat stress during our harvest evaluations on September 27.

During the growing season some powdery mildew developed and the varieties were evaluated for relative susceptibility in **Table 2**. The plot was not treated for mildew as the infection occurred late in the season and was limited in nature. Admire was injected through the drip system for control of melon aphids.

An outbreak of two spotted spider mites also occurred and was quite severe. Plants were treated with Avid after the evaluations in **Table 2** were made. Due in part to the mite outbreak, and unusually hot weather in September, many of the pumpkins did not mature properly and were dehydrated by the time the buyer was willing to process the fruit in the shed. Many of the handles were poorly developed and only a small portion of the crop was marketable.

**Table 1. Yields of Pumpkins on September 27, 2002
San Joaquin Delta College School Farm**

Means per 50' Plot								
Treatment	# 1's	# 2's	# culls	Total 1's + 2's	Wt # 1's (Lbs.)	Wt # 2's (Lbs.)	Total Weight (Lbs.) 1's + 2's	Avg. Wt per Fruit (Lbs.)
Jackpot (F1) 12" spacing	15.3 AB	23.0 D	12.7 ABC	38.3 DEF	208.7 AB	174.0 D	382.7 CD	10.0
Jackpot (F1) 18" spacing	18.3 AB	16.3 BCD	8.3 ABC	34.7 BCDE	228.1 AB	156.2 CD	384.3 CD	11.1
Jackpot (F1) 24" spacing	16.7 AB	14.3 BCD	4.7 AB	31.0 ABCD	255.5 B	117.7 BCD	373.3 CD	12.0
Spirit (F1)	14.7 AB	22.7 CD	6.3 ABC	37.3 CDE	186.0 AB	164.5 CD	350.5 BCD	9.4
Merlin (F1)	19.3 AB	8.7 AB	11.3 ABC	28.0 ABC	231.2 AB	48.7 AB	279.9 ABC	10.0
Magic Lantern (F1)	15.3 AB	18.0 BCD	8.0 ABC	33.3 ABCDE	192.6 AB	151.0 CD	343.7 BCD	10.3
Racer (F1)	15.7 AB	22.7 CD	8.0 ABC	38.3 CDE	221.4 AB	150.3 CD	371.7 CD	9.7
Rocket (F1)	8.3 A	14.3 BCD	16.3 C	22.7 A	111.4 A	118.7 BCD	230.1 AB	10.1
HMX 6689	17.3 AB	9.7 AB	4.0 AB	27.0 ABC	245.7 B	86.0 ABC	331.7 ABCD	12.3
Howdy Doody	13.0 A	17.7 BCD	6.7 ABC	30.7 ABCD	184.1 AB	152.7 CD	336.8 BCD	11.0
HMX 0638	26.0 B	16.7 BCD	14.3 BC	42.7 E	273.0 B	125.0 BCD	398.0 CD	9.3
HMX 9698	16.7 AB	6.7 AB	3.7 A	23.3 AB	276.9 B	61.4 AB	338.3 BCD	14.5
HMX 2690	62.7 C	0.0 A	7.7 ABC	62.7 F	205.4 AB	0.0 A	205.4 A	3.3
Autumn King (F1)	14.3 AB	11.0 ABC	2.7 A	25.3 AB	262.2 B	115.2 BCD	377.4 CD	14.9
HMX 0681	18.3 AB	22.3 CD	9.0 ABC	40.7 DE	252.0 B	166.8 CD	418.8 D	10.3
HMX 1685	18.3 AB	10.3 AB	4.7 AB	28.7 ABC	299.1 B	104.8 BCD	403.9 CD	14.1

Means followed by the same letter were not significantly different at the 5% level. (Fishers LSD)

Table 2. Evaluation of Mildew Infection and Mite Levels		
Delta College Farm Pumpkin Variety Trial - 2002		
Variety	% Powdery Mildew	Mite Rating 1 = Few Mites 5 = Many Mites
Jackpot (F1) 12" spacing	6.67 ab	2.67 abc
Jackpot (F1) 18" spacing	0.0 a	1.67 a
Jackpot (F1) 24" spacing	11.67 ab	2.0 ab
Spirit (F1)	5.0 ab	2.67 abc
Merlin (F1)	0.0 a	2.67 abc
Magic Lantern (F1)	0.0 a	3.33 bcde
Racer (F1)	30.0 c	3.67 cde
Rocket (F1)	5.0 ab	4.67 e
HMX 6689	0.0 a	4.33 de
Howdy Doody	15.67 bc	3.0 abcd
HMX 0638	0.0 a	2.67 abc
HMX 9698	0.0 a	3.33 bcde
HMX 2690	.67 ab	3.0 abcd
Autumn King (F1)	1.67 ab	3.33 bcde
HMX 0681	1.67 ab	2.33 abc
HMX 1685	0.0 a	2.33 abc
Means followed by the same letter were not significantly different at the 5% level. (Fishers LSD)		

Table 3. 2002 Pumpkin Trial – Delta College Farm			
Variety	Color	Handle	Ribbing
Jackpot (F1) 12" spacing	2.0	2.5	2.5
Jackpot (F1) 18" spacing	2.5	3.0	3.5
Jackpot (F1) 24" spacing	2.0	3.0	3.0
Spirit (F1)	2.0	2.5	3.0
Merlin (F1)	4.0	3.5	3.5
Magic Lantern (F1)	3.5	2.5	3.0
Racer (F1)	3.0	3.0	3.5
Rocket (F1)	3.0	2.5	3.0
HMX 6689	3.5	3.5	3.0
Howdy Doody	2.5	3.0	3.5
HMX 0638	3.5	3.5	3.0
HMX 9698	3.5	3.5	3.0
HMX 2690	4.0	3.5	3.0
Autumn King (F1)	3.0	3.5	3.5
HMX 0681	2.5	3.0	3.5
HMX 1685	3.0	3.0	3.0
Average of three replications Color, handle and ribbing rated by Eldon Parker, Lockhart Seeds, Inc.			
	Color	1 – 5	5 = Best, Darkest Orange
	Handle	1 – 5	5 = Longest Handle
	Ribbing	1 – 5	5 = Deepest Ribbing

Table 4. Average Diameter and Height of #1 Fruits in Inches From 3 Replications		
Treatment	Diameter	Height
Jackpot (F1) 12" spacing	10.9	11.4
Jackpot (F1) 18" spacing	10.4	11.1
Jackpot (F1) 24" spacing	11.3	11.2
Spirit (F1)	10.8	10.2
Merlin (F1)	10.6	9.8
Magic Lantern (F1)	10.5	9.7
Racer (F1)	10.2	8.4
Rocket (F1)	10.1	11.4
HMX 6689	11.0	11.2
Howdy Doody	11.5	8.7
HMX 0638	10.7	10.4
HMX 9698	10.3	12.5
HMX 2690	6.4	5.6
Autumn King (F1)	11.2	12.7
HMX 0681	11.5	11.5
HMX 1685	12.5	11.2

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