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**PICKLING CUCUMBER CULTIVAR
EVALUATION TRIALS**

Richard L. Hassell, Cindy Wallace and Ken Scaife



O. A. R. D. C.

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PICKLING CUCUMBER CULTIVAR EVALUATION TRIALS-1996

Richard L. Hassell, Cindy Wallace, and Ken Scaife
Horticulture & Crop Science, OARDC/OSU

The pickling cucumber cultivar evaluation trials were conducted at the OARDC Vegetable Crops Branch near Fremont. Fifteen cultivars or lines were evaluated in the replicated trial.

Cultural Information

The soil is classed as a sandy loam. A broadcast application of 600 lb/A of 15-15-15 was applied May 24 and incorporated prior to planting. On July 8th an additional 40 lb. nitrogen was sidedressed using a 28% U.A.N. mixture. The plants were seeded on June 19 using a coin seeder which placed seeds every 2 inches. Plants were thinned to one plant every 9 inches of row. Rows were 30 ft. long on 30-in. centers. Curbit 4E 3 pt/A was incorporated before planting. Neighboring beehives were available when the plants started to bloom. All other cultural practices during the growing season were according to standard recommendations. Weed control was excellent and no serious insect or disease problem developed during the season.

The plots were harvested by hand and the cucumbers were graded and sized using a commercial sizer. Fruits were classed into the following diameter sizes:

<u>Size (inches)</u>	
1a	0-13/16
1b	13/16-1 1/16
2a	1 1/16-1 5/16
2b	1 5/16-1 1/2
3a	1 1/2-1 13/16
3b	1 13/16-2
4	2 and greater

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Harvest started twice weekly on August 1 and continued through August 29 for nine harvests.

Growing conditions in 1996 were characterized as cool with low humidity.

Rainfall (inches):	June	4.29
	July	4.82
	to August	0.03
Irrigation:	July 11	0.60

Air Temperature	Min	Max	Avg.
June	61	81	71
July	59	82	70
August	57	83	70

RESULTS

In examining the results, it should be kept in mind that this is one year's data and that it takes at least three years of data before a recommendation can be made. However, there were four lines that were rather impressive at various times during the harvest period. These include: 1) Patten, 2) SR 1641 Classic, 3) Vlassett, 4) Sunre 3534 Classic.

Table 1a. First harvest (August 1) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.10	.33	.54	.66	.65	.00	0	.21	2.17
HMX 1463	Harris-Moran	.04	.17	.47	.19	.12	.00	0	.20	1.00
FMX 5026	Ferry Morse	.09	.27	.34	.16	.25	.00	0	.16	1.11
FMX 5018	Ferry Morse	.05	.18	.33	.14	.04	.00	0	.88	.74
Continental	Ferry Morse	.03	.06	.11	.01	.00	.00	0	.06	.21
FMX 5020	Ferry Morse	.07	.24	.64	.16	.23	.06	0	.13	1.40
Shenandoah	Ferry Morse	.01	.07	.52	.19	.16	.02	0	.48	.97
Patton Classic	Sun Seeds	.03	.11	.34	.15	.13	.02	0	.33	.79
Sunre 3534 Classic	Sun Seeds	.02	.08	.17	.00	.04	.02	0	.10	.34
Jackson Classic	Sun Seeds	.04	.16	.30	.18	.25	.10	0	.20	1.01
SR 1641 Classic	Sun Seeds	.02	.14	.27	.13	.11	.04	0	.33	.71
PS 14692	Asgrow	.02	.20	.52	.32	.35	.00	0	.42	1.42
XVC 8406 Hyb	Asgrow	.07	.15	.18	.02	.02	.00	0	.19	.44
Navigator B Hyb	Asgrow	.06	.33	.46	.24	.20	.00	0	.31	1.29
Vlasset B Hyb	Asgrow	.03	.18	.22	.08	.07	.04	0	.21	.62

Table 1b. Second harvest (August 5) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.07	.21	.50	.28	.36	.07	.00	.39	1.47
HMX 1463	Harris-Moran	.05	.13	.36	.16	.07	.08	.04	.43	.88
FMX 5026	Ferry Morse	.09	.30	.56	.18	.35	.05	.00	.41	1.54
FMX 5018	Ferry Morse	.05	.20	.53	.19	.47	.08	.00	.18	1.52
Continental	Ferry Morse	.04	.04	.11	.07	.11	.00	.00	.22	.38
FMX 5020	Ferry Morse	.05	.15	.38	.27	.25	.11	.00	.34	1.21
Shenandoah	Ferry Morse	.04	.06	.21	.19	.08	.05	.00	.49	.62
Patton Classic	Sun Seeds	.01	.07	.34	.16	.16	.08	.00	.46	.82
Sunre 3534 Classic	Sun Seeds	.00	.03	.15	.09	.19	.10	.00	.36	.56
Jackson Classic	Sun Seeds	.08	.13	.39	.21	.19	.04	.00	.38	1.04
SR 1641 Classic	Sun Seeds	.02	.09	.18	.17	.18	.00	.00	.68	.64
PS 14692	Asgrow	.07	.14	.50	.14	.26	.04	.00	.44	1.14
XVC 8406 Hyb	Asgrow	.06	.10	.59	.24	.21	.04	.00	.38	1.24
Navigator B Hyb	Asgrow	.07	.16	.42	.30	.42	.06	.02	.53	1.46
Vlasset B Hyb	Asgrow	.04	.13	.79	.34	.39	.10	.00	.56	1.80

Table 1c. Third harvest (August 8) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.22	.34	.63	.27	.28	.04	.04	.62	1.72
HMX 1463	Harris-Moran	.09	.19	.49	.20	.25	.16	.00	.70	1.38
FMX 5026	Ferry Morse	.11	.27	.67	.42	.25	.07	.00	1.08	1.78
FMX 5018	Ferry Morse	.10	.25	.60	.24	.40	.22	.07	.71	1.88
Continental	Ferry Morse	.15	.31	.71	.22	.16	.08	.02	.79	1.66
FMX 5020	Ferry Morse	.08	.25	.73	.33	.24	.32	.04	.90	2.01
Shenandoah	Ferry Morse	.06	.28	.57	.24	.15	.28	.08	.80	1.65
Patton Classic	Sun Seeds	.09	.22	.47	.22	.10	.00	.00	.88	1.09
Sunre 3534 Classic	Sun Seeds	.05	.18	.46	.16	.21	.18	.11	.85	1.36
Jackson Classic	Sun Seeds	.08	.25	.39	.17	.38	.10	.00	.85	1.37
SR 1641 Classic	Sun Seeds	.09	.28	.57	.19	.16	.03	.00	.60	1.32
PS 14692	Asgrow	.15	.41	.65	.33	.17	.15	.00	.69	1.86
XVC 8406 Hyb	Asgrow	.07	.14	.50	.22	.24	.04	.00	1.01	1.21
Navigator B Hyb	Asgrow	.08	.26	.76	.39	.28	.22	.00	.67	2.00
Vlasset B Hyb	Asgrow	.03	.16	.84	.44	.27	.03	.03	.61	1.70

Table 1d. Fourth harvest (August 12) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.24	.44	.59	.13	.20	.17	.08	.59	1.85
HMX 1463	Harris-Moran	.25	.32	.40	.09	.31	.27	.05	.71	1.70
FMX 5026	Ferry Morse	.23	.31	.45	.08	.42	.18	.25	1.03	1.92
FMX 5018	Ferry Morse	.21	.35	.28	.22	.35	.37	.19	.83	1.98
Continental	Ferry Morse	.28	.39	.36	.23	.27	.13	.12	.88	1.78
FMX 5020	Ferry Morse	.25	.24	.34	.15	.30	.24	.17	1.03	1.68
Shenandoah	Ferry Morse	.16	.25	.49	.15	.38	.35	.04	1.02	1.82
Patton Classic	Sun Seeds	.11	.25	.42	.08	.31	.24	.00	.96	1.41
Sunre 3534 Classic	Sun Seeds	.10	.14	.30	.19	.36	.45	.07	1.13	1.72
Jackson Classic	Sun Seeds	.15	.27	.33	.16	.35	.27	.11	.85	1.65
SR 1641 Classic	Sun Seeds	.10	.21	.27	.23	.52	.28	.04	.83	1.65
PS 14692	Asgrow	.18	.31	.46	.36	.46	.28	.17	.90	2.21
XVC 8406 Hyb	Asgrow	.14	.24	.28	.10	.30	.17	.18	.87	1.39
Navigator B Hyb	Asgrow	.18	.28	.33	.14	.44	.42	.20	1.11	1.99
Vlasset B Hyb	Asgrow	.11	.25	.36	.21	.50	.34	.10	.86	1.86

Table 1e. Fifth harvest (August 15) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.24	.50	.87	.21	.19	.05	.00	.21	2.04
HMX 1463	Harris-Moran	.24	.31	.81	.15	.16	.08	.00	.25	1.75
FMX 5026	Ferry Morse	.26	.36	.71	.13	.20	.02	.04	.53	1.72
FMX 5018	Ferry Morse	.26	.42	.71	.18	.28	.05	.00	.51	1.92
Continental	Ferry Morse	.23	.42	1.05	.25	.12	.15	.03	.53	2.26
FMX 5020	Ferry Morse	.27	.27	.41	.70	.16	.07	.11	.40	1.71
Shenandoah	Ferry Morse	.22	.38	.89	.21	.30	.08	.08	.42	2.15
Patton Classic	Sun Seeds	.18	.32	.88	.23	.17	.09	.04	.47	1.90
Sunre 3534 Classic	Sun Seeds	.16	.27	.85	.30	.24	.17	.00	.53	1.98
Jackson Classic	Sun Seeds	.15	.35	.94	.29	.20	.04	.00	.36	1.97
SR 1641 Classic	Sun Seeds	.20	.33	.97	.24	.31	.02	.00	.51	2.08
PS 14692	Asgrow	.23	.47	1.00	.27	.16	.06	.04	.45	2.24
XVC 8406 Hyb	Asgrow	.23	.38	.86	.24	.18	.07	.00	.56	1.95
Navigator B Hyb	Asgrow	.24	.36	.92	.25	.18	.10	.00	.46	2.05
Vlasset B Hyb	Asgrow	.20	.36	.88	.39	.22	.05	.00	.52	2.11

Table 1f. Sixth harvest (August 19) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.18	.28	.51	.16	.24	.11	.08	.25	1.56
HMX 1463	Harris-Moran	.14	.25	.61	.16	.19	.13	.00	.34	1.49
FMX 5026	Ferry Morse	.13	.30	.62	.16	.21	.22	.00	.33	1.63
FMX 5018	Ferry Morse	.22	.35	.71	.22	.33	.14	.16	.43	2.12
Continental	Ferry Morse	.20	.38	.88	.30	.36	.05	.07	.40	2.23
FMX 5020	Ferry Morse	.11	.19	.57	.24	.34	.17	.04	.31	1.65
Shenandoah	Ferry Morse	.14	.28	.85	.24	.43	.11	.12	.42	2.17
Patton Classic	Sun Seeds	.18	.33	.60	.23	.36	.10	.05	.62	1.85
Sunre 3534 Classic	Sun Seeds	.13	.24	.49	.40	.35	.11	.00	.60	1.71
Jackson Classic	Sun Seeds	.15	.21	.65	.34	.52	.33	.05	.34	2.25
SR 1641 Classic	Sun Seeds	.15	.33	.62	.30	.39	.12	.16	.53	2.06
PS 14692	Asgrow	.19	.36	.73	.38	.37	.22	.08	.46	2.34
XVC 8406 Hyb	Asgrow	.15	.24	.42	.21	.28	.13	.10	.48	1.53
Navigator B Hyb	Asgrow	.16	.28	.84	.30	.24	.16	.00	.40	1.98
Vlasset B Hyb	Asgrow	.11	.27	.50	.19	.44	.07	.21	.42	1.79

Table 1g. Seventh harvest (August 22) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.06	.17	.32	.07	.14	.03	.05	.25	.85
HMX 1463	Harris-Moran	.06	.19	.33	.17	.28	.07	.08	.37	1.18
FMX 5026	Ferry Morse	.08	.16	.28	.14	.30	.08	.16	.36	1.20
FMX 5018	Ferry Morse	.09	.19	.50	.14	.17	.16	.19	.36	1.44
Continental	Ferry Morse	.12	.21	.57	.25	.39	.21	.09	.46	1.85
FMX 5020	Ferry Morse	.09	.15	.30	.11	.07	.10	.08	.32	.90
Shenandoah	Ferry Morse	.41	.10	.29	.65	.22	.31	.15	.13	1.85
Patton Classic	Sun Seeds	.13	.24	.54	.23	.27	.31	.00	.33	1.72
Sunre 3534 Classic	Sun Seeds	.09	.23	.38	.16	.24	.02	.08	.41	1.20
Jackson Classic	Sun Seeds	.10	.16	.32	.11	.38	.11	.07	.28	1.25
SR 1641 Classic	Sun Seeds	.09	.30	.45	.19	.29	.09	.04	.49	1.45
PS 14692	Asgrow	.08	.27	.68	.17	.16	.25	.14	.38	1.76
XVC 8406 Hyb	Asgrow	.08	.12	.19	.08	.36	.16	.08	.45	1.08
Navigator B Hyb	Asgrow	.09	.28	.62	.19	.34	.27	.10	.39	1.88
Vlasset B Hyb	Asgrow	.05	.18	.35	.19	.28	.10	.24	.53	1.39

Table 1h. Eighth harvest (August 26) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.16	.24	.25	.44	.56	.09	.24	.05	1.98
HMX 1463	Harris-Moran	.16	.17	.19	.12	.28	.16	.38	.10	1.46
FMX 5026	Ferry Morse	.13	.23	.07	.19	.22	.14	.23	.09	1.21
FMX 5018	Ferry Morse	.13	.22	.09	.27	.10	.09	.24	.05	1.14
Continental	Ferry Morse	.05	.22	.21	.25	.20	.17	.19	.02	1.28
FMX 5020	Ferry Morse	.21	.48	.17	.59	.22	.16	.34	.03	2.17
Shenandoah	Ferry Morse	.08	.36	.18	.21	.27	.19	.27	.04	1.55
Patton Classic	Sun Seeds	.16	.59	.25	.70	.11	.07	.34	.07	2.22
Sunre 3534 Classic	Sun Seeds	.11	.49	.18	.38	.39	.22	.19	.02	1.98
Jackson Classic	Sun Seeds	.21	.54	.25	.58	.38	.36	.33	.12	2.64
SR 1641 Classic	Sun Seeds	.19	.75	.24	.41	.22	.24	.27	.07	2.32
PS 14692	Asgrow	.08	.16	.08	.15	.07	.05	.46	.05	1.05
XVC 8406 Hyb	Asgrow	.20	.58	.20	.30	.44	.13	.31	.07	2.18
Navigator B Hyb	Asgrow	.15	.48	.11	.17	.25	.19	.30	.06	1.64
Vlasset B Hyb	Asgrow	.15	.40	.22	.41	.23	.08	.30	.08	1.78

Table 1i. Ninth harvest (August 29) yields of pickling cucumber cultivar trial 1996.

Cultivar	Source	Tons/A								
		1a	1b	2a	2b	3a	3b	4a	culls	total
HMX 3469	Harris-Moran	.15	.13	.25	.10	.18	.24	.23	.71	1.26
HMX 1463	Harris-Moran	.11	.19	.15	.08	.30	.25	.04	.91	1.14
FMX 5026	Ferry Morse	.09	.13	.21	.04	.05	.13	.13	.65	.79
FMX 5018	Ferry Morse	.13	.15	.27	.15	.24	.11	.19	.93	1.23
Continental	Ferry Morse	.21	.22	.34	.16	.23	.13	.05	.90	1.34
FMX 5020	Ferry Morse	.11	.11	.32	.08	.24	.06	.04	.64	.96
Shenandoah	Ferry Morse	.13	.17	.36	.08	.17	.10	.30	.63	1.31
Patton Classic	Sun Seeds	.08	.13	.29	.11	.38	.23	.11	.76	1.32
Sunre 3534 Classic	Sun Seeds	.07	.19	.22	.11	.22	.28	.05	.78	1.14
Jackson Classic	Sun Seeds	.11	.12	.24	.18	.27	.04	.09	.80	1.06
SR 1641 Classic	Sun Seeds	.07	.15	.27	.13	.22	.04	.18	.87	1.06
PS 14692	Asgrow	.10	.22	.22	.27	.40	.34	.25	.93	1.79
XVC 8406 Hyb	Asgrow	.07	.09	.22	.37	.13	.05	.08	.82	1.01
Navigator B Hyb	Asgrow	.13	.11	.30	.16	.26	.16	.11	.66	1.23
Vlasset B Hyb	Asgrow	.10	.15	.19	.12	.26	.02	.08	.67	.93

Table 2. Yield of pickling cucumber cultivars.

Cultivar	Yields from 9 harvest dates - tons/acre											L/D Ratio		Seed Cavity	
	8/1	8/5	8/8	8/12	8/15	8/19	8/22	8/26	8/29	total	8/5 size 2	8/16 size 2	8/5 (mm)	8/16 (mm)	
	HMX 3469	2.17	1.47	1.72	1.85	2.04	1.56	.84	1.98	1.26	14.89	3.34	3.24	18.44	24.10
HMX 1463	1.00	.88	1.38	1.70	1.75	1.49	1.18	1.46	1.14	11.98	3.38	3.42	21.16	23.08	
FMX 5026	1.11	1.54	1.78	1.92	1.72	1.63	1.20	1.21	.79	12.90	3.48	3.36	19.54	21.95	
FMX 5018	.74	1.52	1.88	1.98	1.92	2.12	1.44	1.14	1.23	13.97	2.88	3.18	23.20	25.28	
Continental	.21	.38	1.66	1.78	2.26	2.23	1.85	1.28	1.34	12.99	3.09	3.54	22.28	22.73	
FMX 5020	1.40	1.21	2.01	1.68	1.71	1.65	.90	2.17	.96	13.69	2.90	3.48	23.56	22.26	
Shenandoah	.97	.62	1.65	1.82	2.15	2.17	1.85	1.55	1.31	14.09	3.03	3.25	24.34	21.96	
Patton Classic*	.79	.82	1.09	1.41	1.90	1.85	1.72	2.22	1.32	13.12	3.14	3.27	22.82	22.57	
Sunre 3534 Classic*	.34	.56	1.36	1.72	1.98	1.71	1.20	1.98	1.14	11.99	2.85	3.23	22.22	22.74	
Jackson Classic	1.01	1.04	1.37	1.65	1.97	2.25	1.25	2.64	1.06	14.24	3.13	3.21	19.42	23.16	
SR 1641 Classic*	.71	.64	1.32	1.65	2.08	2.06	1.45	2.32	1.06	13.29	2.73	3.15	23.00	21.80	
PS 14692	1.42	1.14	1.85	2.21	2.24	2.34	1.76	1.05	1.79	15.81	3.22	3.34	20.08	22.18	
XVC 8406 Hyb	.44	1.24	1.21	1.39	1.95	1.53	1.08	2.18	1.01	12.03	2.96	2.99	23.30	21.12	
Navigator B Hyb	1.29	1.45	2.00	1.99	2.05	1.98	1.88	1.64	1.23	15.51	2.98	3.27	25.10	21.76	
Vlasset B Hyb*	.62	1.80	1.79	1.86	2.11	1.79	1.39	1.78	.93	14.07	2.95	3.20	24.42	21.86	

Table 3. Additional observations.

Cultivar	Color of Spines	Color	Comments
HMX 3469	White	Dark Green	Long, prominent warts, restricted on both ends, not uniform.
HMX 1463	White	Dark Green	Long, prominent warts, tapered on both ends, not uniform.
FMX 5026	White	Medium Green	Some tapered, some blocky.
FMX 5018	White	Medium Green	Restricted on stem end.
Continental	White	Dark Green	Long, fairly smooth, uniform, blocky.
FMX 5020	White	Medium Green	Tapered at blossom end.
Shenandoah	White	Medium Green	Fairly blocky, some stems remaining of fruit.
Patton Classic	White	Dark Green	Blocky, small warts, some stems remain on fruit, very uniform.
Sunre 3534 Classic	White	Medium Green	Striped, some smooth, some warty, blocky, very uniform.
Jackson Classic	White	Medium Green	Some tapered to blossom end, some blocky.
SR 1641 Classic	White	Light Green	Blocky, some striped, shortest in trial, very uniform.
PS 14692	White	Medium Green	Fairly smooth, long, restricted at stem end.
XVC 8406 Hyb	White	Light Green	Striped, fairly smooth, warty, restricted at blossom end.
Navigator B Hyb	White	Light Green	Striped, fairly smooth.
Vlasset B Hyb	White	Medium Green	Warty, blocky, fairly uniform.

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