

# FINAL REPORT

## 1998 Cucumber Variety Trials

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College of Tropical Agriculture and Human Resources, University of Hawaii

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### VEGETABLE CROPS FIELD DAY

UH Poamoho Research Station

November 25, 1998, 9-11 AM

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**INTRODUCTION:** Welcome to the University of Hawaii Poamoho Research Experiment Station. Today we will provide results from trellised cucumber variety trials conducted on the same plot during three consecutive plantings (spring, summer, and fall), and one high-elevation summer experiment from Kamuela, Hawaii. The same 42 cucumber varieties were planted during each growing cycle. Currently the third planting is in its second week of production. Each variety was grown on a 20-foot row section, with one replication per variety.

#### Climate on Poamoho Station:

870 ft elevation;

45 inches median annual rainfall.

Wahiawa silt clay (Tropeptic Eustrustox);

The Poamoho experimental farm is located on soil which has a mineralogical composition of kaolinitic clay and iron oxides and an organic matter content of approx. 2%.

The red soil is derived from basalt that is kaolinitic with oxides of iron and manganese. Soil fertility of the cucumber plots prior to planting in March 1998 was: pH= 6.1, EC= 0.19 mmhos, P=368, K= 372, Ca= 1670, Mg= 188 ppm, and organic matter content= 1.19%.

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**For More Information Please Contact:**

Steve Fukuda, CES Wahiawa 808-622-4185

Randy Hamasaki, CES Kaneohe 808-247-0421

Hector Valenzuela, UH Vegetable Specialist 808-956-7903

Fax 808-956-3894, hector@hawaii.edu

Cucumber Variety Trial, Poamoho Fall 1998

DATE= \_\_\_\_\_ <<<<<< DRIP LINE SOURCE >>>>>>>>>>>>

Sw Alphee N/W 1 _____ N/WB _____ N/WU _____	Summer Top N/W1 _____ N/WB _____ N/WU _____	Merry Green N/W1 _____ N/WB _____ N/WU _____	Ever Slice N/W1 _____ N/WB _____ N/WU _____	Pegasus N/W1 _____ N/WB _____ N/WU _____	BN 138 N/W1 _____ N/WB _____ N/WU _____	SL 023 N/W1 _____ N/WB _____ N/WU _____
Tasty Green N/W1 _____ N/WB _____ N/WUM _____	SxQ 3775 N/W1 _____ N/WB _____ N/WU _____	SL 018 N/W1 _____ N/WB _____ N/WU _____	SL 031 N/W1 _____ N/WB _____ N/WU _____	Palace Pride N/W1 _____ N/WB _____ N/WU _____	SL 041 N/W1 _____ N/WB _____ N/WU _____	Lucky Strike N/W1 _____ N/WB _____ N/WU _____
SL-025 N/W1 _____ N/WB _____ N/WUM _____	Supersett N/W1 _____ N/WB _____ N/WU _____	Winter Long N/W1 _____ N/WB _____ N/WU _____	Tasty King N/W1 _____ N/WB _____ N/WU _____	Progress N/W1 _____ N/WB _____ N/WU _____	Semi-white N/W1 _____ N/WB _____ N/WU _____	Indy N/W1 _____ N/WB _____ N/WU _____
SRQ-2389 N/W1 _____ N/WB _____ N/WUM _____	SBQ-2450 N/W1 _____ N/WB _____ N/WU _____	Genuine N/W1 _____ N/WB _____ N/WU _____	Panther N/W1 _____ N/WB _____ N/WU _____	Palace King N/W1 _____ N/WB _____ N/WU _____	Prolific N/W1 _____ N/WB _____ N/WU _____	SxQ 2184 N/W1 _____ N/WB _____ N/WU _____
Tasty Bright N/W1 _____ N/WB _____ N/WUM _____	Harvestmore N/W1 _____ N/WB _____ N/WU _____	Timor N/W1 _____ N/WB _____ N/WU _____	SRQ 3744 N/W1 _____ N/WB _____ N/WU _____	Soarer N/W1 _____ N/WB _____ N/WU _____	Sure Green N/W1 _____ N/WB _____ N/WU _____	Dasher II N/W1 _____ N/WB _____ N/WU _____
SBQ-2387 N/W1 _____ N/WB _____ N/WUM _____	Jazzer N/W1 _____ N/WB _____ N/WU _____	Speed Way N/W1 _____ N/WB _____ N/WU _____	Daytona N/W1 _____ N/WB _____ N/WU _____	So. Delight N/W1 _____ N/WB _____ N/WU _____	SL 039 N/W1 _____ N/WB _____ N/WU _____	Centurion N/W1 _____ N/WB _____ N/WU _____

# Trellised Cucumber Variety Trial

Hector Valenzuela, Ted Goo, Dwight Sato, and Susan M. Migita

## Overall Results and Discussion

### Overall Results

Varieties may respond differently to the different growing seasons. **Genuine** (Known-you), **Prolific** (Sakata), and **Palace Pride** (Takii) are varieties that performed well for total Grade A yields during Spring, Summer and Fall trials. Other good performers included BM-138 (pickling), Jazzer, and Semi-white (slicing, with attractive yellow skin). Overall yields were greater during the summer because of the longer harvesting period. Concerning “early” yields **Genuine**, **Semiwhite**, **Palace Pride** (Japanese type), **BM-128** (pickling), and **Prolific** outperformed other varieties in more than one growing season. Early yields declined gradually with each consecutive trial from Spring to Fall, perhaps due to the buildup of diseases. Growers are encouraged to evaluate several varieties on small-plots first, and are also encouraged to consider growing specialty varieties such as **Palace Pride** (high ratings by taste panels), and **Semiwhite** (yellow variety, very productive).

Based on the 1998 trials the following varieties look promising for further evaluation, and for possible small-scale on-farm trials:

Slicing types: **Genuine**, **Jazzer**, **Prolific**, **Dasher II**, **Panther**, **Semiwhite**.

Japanese type: **Palace Pride**, **Tasty Bright**

Pickling type: **BM-138**.

**Spring 1998 Experiment.** For the spring experiment cucumber was direct seeded on 24 March. For most varieties the first harvest was conducted on May 12<sup>th</sup> (48 days after sowing). Greatest Grade A yields from 3 weeks of harvest (Table 1) were obtained by **Genuine**, **BM-138** (pickling), and **Prolific**. Other varieties with high Grade A yields included **Dasher II**, **Panther**, and **HASL-025**. “Early” yields may be of interest to growers interested in only a few harvests to maximize yields and to minimize build-up of pests and diseases. High early yields (Table 2) from two weeks of harvest were obtained by **Genuine**, **BM-138**, **HASL-025**, **Prolific**, and **Dasher II**. Most varieties had a high taste panel rating (Table 3).

**Summer 1998 Experiment.** For the summer experiment cucumber was direct seeded on 12 June. Most varieties were first harvested on July 22. (40 days after sowing). Greatest Grade A yields from 5 weeks of harvest (Table 4) were obtained by **Jazzer** and **Tasty Bright** (Japanese type). High yields were also obtained by **Palace Pride** (Japanese type), **Genuine**, **Prolific**, and **Semi-white**. High “early” yields (Table 5) from 2 weeks of harvest were obtained by **Semiwhite**, **Genuine**, **Palace Pride**, and **Jazzer**. Varieties with a low pest damage index (Table 6) included **Tasty Bright**, **Supersett**, and **Speedway**.

**Fall 1998 Experiments.** For the fall experiment cucumber was direct seeded on 30 September. For most varieties the first harvest was on 13 November (44 days after sowing). Greatest Grade A yields from about 4.5 weeks of harvest was obtained by **Semi-white**, **SQ-2184**, and **Palace Pride**. Greatest Grade A yields from approx. 2 weeks of harvest (Table 7) were obtained by **Semiwhite** and **HASL-041**. High yields were also obtained by **Palace Pride** and **Merry Green**. Varieties with low levels of angular leaf spot damage included **Semiwhite**, **Jazzer**, **SBQ-2450**, and **Tasty Bright**.

**Kamuella Summer 1998 Experiment.** Eight varieties were grown during the summer in Kamuella on the Big Island, at about 2200 ft elevation. The plants were harvested from 4-30 September. Varieties with marketable yields greater than 20,000 lbs/Acre included **Dasher II**, **Indy**, and **Daytona**. Informal taste panels rated all varieties crispy, and from good to excellent.

**Acknowledgements:** The Poamoho Staff for help in field maintenance and data collection, Christine Crosby and Ted Radovich for obtaining the seed and help with data collection, Trisha Wong for data input, and the seed companies for providing seed samples.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
Genuine	32590.7a	64449.0abc	9960.3b-f	1904.1bc	42575.4abc	44503.9abc	66.2abc	8.1f-l
BM-138	31345.6ab	80073.0a	13426.8abcd	5175.4abc	44782.2ab	49947.9ab	53.2 a-d	6.3m-l
Prolific	31345.6ab	55074.6a-e	8910.5b-f	3124.8abc	40280.6a-d	43405.4a-d	69.8a	9.1c-i
Dasher II	30198.2abc	64449.0abc	10814.7b-f	3051.5abc	41013.0a-d	44064.5a-d	61.5 a-d	7.5h-l
Panther	29186.5abc	69787.0ab	14777.7abc	5685.4ab	43964.2abc	49649.6ab	55.3 a-d	6.7i-m
HASL-025	28953.2abc	52340.4a-e	15086.9ab	4272.1abc	44040.1abc	48336.7ab	51.5 a-d	8.8e-j
Palace Pride	27862.8abc	34720.0b-f	21483.0a	4340.0abc	49324.1a	53664.1a	48.6 a-d	12.8a
Daytona	27488.5a-d	54684.0a-e	1074.1b-f	2343.6bc	38205.5a-e	40573.5a-e	61.1 a-d	8.0e-j
HASL-031	27097.9a-e	47262.6a-f	10887.9b-f	2294.7bc	37985.8a-e	40305.0a-e	60.9 a-d	9.2c-i
SxQ 2184	25096.0a-e	45309.6b-f	9154.6b-f	3515.4abc	34250.7a-f	37766.1a-e	64.0a-d	8.9c-i
Harvestmore	23349.2a-e	47913.6a-f	5251.4c-f	1041.6c	28600.6a-f	29663.9a-f	75.1ab	7.8i-m
Suregreen	22264.2a-e	31248.0b-f	7836.4b-f	1879.7bc	30100.6a-f	32004.7a-f	65.7abc	11.4b
Merry Green	22020.0a-e	33591.6b-f	13207.1a-e	1879.7bc	35227.2a-e	37131.4a-f	64.3a-d	10.4bf
Timor	21727.1a-e	60152.4a-d	4272.1def	7372.5a	25999.3a-f	33371.8a-f	62.5a-d	5.8m
So. Delight	21068.0a-e	35544.6b-f	12035.3b-f	4662.7abc	33103.3a-f	37766.1a-e	51.9 a-d	9.5c-i
HASL-041	20775.0a-e	39841.2b-f	11132.1b-f	3002.7bc	31907.1a-f	34934.2a-f	57.1 a-d	8.3f-l
SxQ 3775	20181.0a-e	40622.4b-f	8463.0b-f	3840.9abc	28644.0a-f	32484.9a-f	56.0 a-d	7.9f-k
Jazzier	20091.5a-e	38278.8b-f	5468.4b-f	2026.2bc	25559.8a-f	27610.5b-f	63.0a-d	8.4e-j
Tasty Bright	18019.1a-e	29772.4cdef	12949.4a-e	2601.2bc	30968.6a-f	33569.9a-f	52.7 a-d	9.6b-g

the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval (P<0.05).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.

of yields. Numbers followed by

Table 1. continues

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
HASL-018	18162.9a-e	34372.8b-f	9887.0b-f	3417.7abc	28074.3a-f	31492.1a-f	46.9 a-d	8.4d-j
Speedway	18065.2a-e	37107.0b-f	7079.6b-f	3222.4abc	25144.8a-f	28367.3a-f	53.3 a-d	7.8f-l
Progress	18016.4a-e	37888.2b-f	6859.9b-f	3613.0abc	24851.9a-f	28489.3a-f	54.4 a-d	7.6j-l
Semiwhite	16144.8a-e	26387.2cdef	10654.7b-f	1974.7bc	26799.5a-f	28774.2a-f	51.7 a-d	9.8c-h
Supersett	16025.4a-e	31899.0b-f	9626.6b-f	3930.4abc	25652.1a-f	29582.5a-f	47.3bcd	8.0e-k
Centurion	16161.1a-e	33591.6b-f	7836.4b-f	2392.4bc	23997.4b-f	26414.3b-f	62.8a-d	7.7h-l
Tasty Green	14083.3a-e	28123.2cdef	7161.0b-f	2951.2bc	21222.6b-f	24195.5b-f	52.5 a-d	8.0f-k
Everslice	15672.8a-e	24998.4cdef	13751.5a-d	4443.0abc	29417.0a-f	33860.1a-f	46.4 a-d	10.0bcd
HASL-023	15624.0a-e	31638.6b-f	6103.1b-f	2831.8bc	21727.1b-f	24558.9b-f	51.9 a-d	7.9h-l
Indy	15599.6a-e	32419.8b-f	11376.2b-f	4198.9abc	26975.8a-f	31174.7a-f	42.4 a-d	7.7g-l
Lucky Strike	14647.5a-e	30076.2cdef	6981.9b-f	3661.8abc	21629.4b-f	25291.3b-f	44.3 a-d	7.8g-l
Pegasus	14403.4a-e	32810.4b-f	5004.5cdef	5053.3abc	19407.9cdef	24485.7b-f	42.0 a-d	7.0k-l
Summer top	13367.2a-e	25519.2cdef	8753.2b-f	3189.9abc	22120.4b-f	25329.3b-f	52.4 a-d	8.4f-k
Soarer	12586.0a-e	22568.0cdef	716.1b-f	802.9c	19747.0b-f	20549.9c-f	55.9 a-d	8.9c-i
SRQ-2389	12352.7a-e	19530.0ef	1098.5b-f	2538.9bc	23338.35b-f	25901.6b-f	41.4 a-d	10.1b-d
SBQ-2450	12152.0a-e	25345.6cdef	3537.1ef	2104.9bc	157064.6def	17815.7def	59.7 a-d	7.7h-l
Tasty King	11001.9bcde	21873.6def	6010.9b-f	2517.2bc	17034.5def	19551.7cdef	54.6 a-d	8.0h-m
SBQ-2387	10841.9bcde	18835.6ef	10633.0b-f	2867.1bc	21474.8b-f	24341.9b-f	45.3cd	9.2c-i
HASL-039	10307.5cde	20832.0cdef	7334.6b-f	2300.2bc	18727.1cdef	21049.0c-f	41.5bcd	7.9f-l
SRQ-3774	10936.8bcde	23436.0cdef	6347.2b-f	3368.9abc	17259.6def	20652.9c-f	51.5 a-d	7.5i-m
Winter Long	10717.1bcde	20311.2ef	6029.8b-f	2026.2bc	16746.9def	18797.6cdef	55.8 a-d	8.4c-i
Palace King	7079.6de	11978.4f	2815.5f	1302.0bc	9895.2f	11197.2f	57.0bcd	9.5c-j
	6854.5e	10633.0f	6607.6b-f	2088.6bc	13481.1ef	15569.7ef	43.9d	10.3bc

Table 2. Early marketable yields from 6 harvests (2 weeks) of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Spring 1998.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
BM-138	26886.3a	69006.0a	9439.5ab	3092.2b	36325.8ab	39418.0a	63.9a-d	6.2l-m
HASL-025	25096.0a	44528.4abc	11392.5ab	3141.0b	36488.5a	39629.6a	59.8a-d	9.0c-k
Prolific	24607.8a	42445.2a-e	5321.9b	1383.3b	29913.4a-e	31296.8a-d	76.4ab	9.3c-j
Dasher II	21922.4a	48694.8abc	6591.3b	2392.4b	28513.8a-e	30889.9a-d	67.3a-d	7.2h-m
Panther	21483.0ab	52080.0ab	9873.5ab	3444.8b	31356.5a-d	34801.3abc	59.4a-d	6.6i-m
Palace Pride	21374.5ab	24738.0b-e	15651.1a	1003.6b	37025.6a	38029.2ab	53.2a-d	13.8a
Daytona	20750.6ab	40362.0a-e	6347.2b	1383.4b	27097.9a-e	28481.2a-d	66.7a-d	8.2d-k
SxQ-2184	19334.7ab	34633.2b-e	6021.7b	2734.2b	25356.4a-e	28106.9a-d	67.2a-d	8.9c-k
HASL-031	19285.8ab	33331.2b-e	8381.6ab	1757.7b	27667.5a-e	29425.2a-d	56.4a-d	9.3c-j
Merry Green	18960.3ab	27862.8b-e	9472.0ab	488.2b	28432.4a-e	28920.7a-d	79.8a	10.9bcd
So. Delight	18032.7ab	29425.2b-e	8837.3ab	2734.2b	26886.3a-e	29620.5a-d	59.6a-d	9.8c-i

**Experiment:** The experiment consisted on growing each variety on trellis on a 20-foot long plot, one replication per variety.

**Spacing** was 8 inches between plants in the row, and 5 feet between rows. The crop was drip irrigated as needed.  
**Data analysis:** The data was run through a statistical analysis using the harvesting dates (6 dates) as replications. This is not a true replicated experiment, so the analysis may only provide insight on general trends in terms of yields. Numbers followed by the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval ( $P < 0.05$ ).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.

Table 2. cont.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
HASI-041	17528.1ab	23436.0b-e	5533.5b	1383.3b	23061.7a-e	24445.0a-d	68.6a-d	11.9b
Harvestmore	17121.3ab	32029.2b-e	8495.5ab	2115.7b	25600.6a-e	27716.3a-d	62.1a-d	8.5e-k
Timor	16763.2ab	34286.0b-e	3173.6b	623.9b	19936.9a-e	20560.7a-d	85.24	7.8i-m
Speedway	16681.8ab	45049.2abc	3531.6b	6721.6a	20213.5a-e	26935.1a-d	61.3a-d	5.9m
Jazzer	16356.3ab	34372.8b-e	3710.7b	1790.2b	20067.1a-e	21857.3a-d	71.1a-d	7.6j-m
Sw. alphee	16323.8ab	31248.0b-e	3547.9b	1757.7b	19888.0a-e	21645.7a-d	66.5a-d	8.3g-m
SxQ-3775	15916.9ab	29425.2b-e	7616.7ab	2083.2b	23549.9a-e	25633.1a-d	55.7a-d	8.6c-k
HASI-018	15434.1ab	30814.0b-e	4611.2b	2441.2b	20045.4a-e	22486.6a-d	58.7a-d	8.0e-k
Semiwhite	15054.3ab	31248.0b-e	4280.3b	1383.4b	19334.7a-e	20718.0a-d	67.5a-d	7.7h-m
Lucky Strike	14029.0ab	28123.2b-e	6238.7b	1410.5b	20267.8a-e	21678.3a-d	67.2a-d	7.9f-m
Supersett	13963.9ab	31768.8b-e	3775.8b	3629.3b	17739.7a-e	21369.1a-d	57.1a-d	7.0k-m
Tasty Bright	13719.8ab	28644.0b-e	6640.2b	1009.0b	20376.3a-e	21369.1a-d	70.6a-d	7.6h-m
Everslice	13616.7ab	21700.0b-e	9114.0ab	1573.2b	22730.7a-e	24304.0a-d	58.0bcd	10.0b-g
Progress	12640.7ab	24738.0b-e	2848.1b	1920.4b	15493.8a-e	17414.2a-d	59.4a-d	8.2e-k
Centurion	12613.1ab	20398.0b-e	7269.5ab	705.2b	19882.6a-e	20587.9a-d	57.2a-d	9.8c-i
Tasty Green	11745.1ab	22568.0b-e	5316.5b	1600.4b	17061.6a-e	18662.0a-d	59.0a-d	8.3c-j
HASI-023	11908.4ab	17707.2b-e	10822.9ab	2473.8b	22736.2a-e	25193.7a-d	53.0a-d	10.8bc
Indy	11685.4ab	23436.0b-e	8137.5ab	2848.1b	19822.9a-e	22671.1a-d	47.0a-d	7.9f-m
SRQ-2389	11262.3ab	23436.0b-e	3954.8b	1871.6b	15217.1a-e	17088.7a-d	51.3a-d	7.7h-m
Pegasus	11175.5ab	23436.0b-e	2658.2b	1681.7b	13833.7a-e	15515.5a-d	77.7a-d	7.6h-m
Soarer	10936.8ab	20311.2b-e	5262.2b	792.0b	16199.0a-e	16980.2a-d	69.4a-d	8.6e-k
HASI-039	10285.8ab	15624.0cde	6510.0b	537.1b	16795.8a-e	17332.9a-d	50.6a-d	10.5b-e
SRQ-3774	9634.8ab	20050.8b-e	4687.2b	2490.1b	14322.0a-e	16812.1a-d	58.2a-d	7.7g-m
SBQ-2387	9634.8ab	18228.0b-e	4833.6b	1822.8b	14452.2a-e	16275.0a-d	68.4a-d	8.5c-k
Summertop	9114.0ab	18228.0b-e	6781.2ab	1953.0b	15895.2a-e	17848.2a-d	52.3a-d	8.0f-l
SBQ-2450	9032.6ab	16058.0cde	4177.2b	162.7b	13209.8b-e	13372.6cd	63.0a-d	9.0c-k
Tasty King	8924.1ab	17794.0b-e	3661.8b	1546.1b	12911.5cde	14132.1bcd	71.9a-d	8.0h-m
Winter long	8842.7ab	15276.8cde	8495.5ab	976.5b	17338.3a-e	18314.8a-d	54.1cd	9.2c-i
Palace King	5671.8b	9114.0de	2091.3b	626.5b	7755.0e	8381.6d	70.0d	9.96c-h
	4502.7b	7464.8e	3933.7b	1063.3b	8441.3de	9493.7d	49.8d	9.6b-f

Table 3. Yield per 100 ft row section, growth, and fruit quality of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Spring 1998 (9 harvests, 3 weeks).

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Fruit length <sup>1</sup> (inches)	Fruit diameter <sup>1</sup> (inches)	Plant vigor <sup>2</sup> Index (1-10) (high is better)	Plant Height (in) (avg/max)	Pest damage <sup>3</sup> (1-10) (low is better)	Taste Index <sup>4</sup> (1-10)
BM-138	361.13	515.93	575.44	6.69 (P)	2.21	8/4	29	5	8.2
Prolific	361.13	464.06	500.06	9.25	1.83	5/6	38	7	7.5
Dasher II	347.91	472.50	507.66	7.87	2.01	9/7	37	4	NA
Panther	336.25	506.50	572.00	8.66	2.00	9/7	35-47	4	6.7
HASL-025	333.56	507.38	556.88	8.66	1.81	9/6	33-45	6	8.5
Palace Pride	321.00	568.25	618.25	17.32 (J)	1.75	10/9	60-69	3	6.7
Daytona	316.69	440.16	467.44	7.48	1.94	8/7	39	3	NA
HASL-031	312.19	437.63	464.34	9.25	1.99	8/6	36-48	4	NA
SxQ 2184	289.13	394.59	435.09	8.66	2.05	7/7	37	4	9.3
Harvestmore	269.00	329.50	341.75	7.09	1.85	8/7	37	4	6.0
Suregreen	256.50	346.78	368.72	10.24	1.95	10/7	50-64	4	8.0
Merry Green	253.69	405.84	427.78	9.84	1.82	4/8	36-53	4	NA
Timor	250.31	299.53	384.47	6.89	1.93	8/6	32	4	NA
So. Delite	242.72	381.38	435.09	11.02 (J)	1.63	7/4	35-46	7	NA
HASL-041	239.34	367.59	402.47	9.45	1.89	6/2	38-52	9	7.0
SxQ 3775	232.50	330.00	374.25	7.87	1.89	8/6	39	5	6.3
Jazzier	231.47	294.47	318.09	8.27	1.89	3/6	30	4	NA
Sw. alpee	209.25	323.44	362.81	6.30 (P)	1.84	7/3	35	6	NA
HASL-018	208.13	289.69	326.81	8.27	1.75	2/4	27-34	5	9.0
Tasty Bright	207.59	356.78	386.75	10.63 (J)	1.61	7/2	40	4	8.0
Speedway	207.56	286.31	328.22	7.48	1.89	5/5	32-36	5	8.7

<sup>1</sup>Fruit length and diameter: Determined from 2-3 representative fruit samples from each variety.

<sup>2</sup>Plant vigor: An index of plant vigor was determined at approximately 1 and 2 months after planting. Here we thus show early/late vigor index determinations. 10= maximum plant vigor. Plant vigor may indicate the ability of the plant to “outgrow” attack from nematodes, insects, mites and diseases.

<sup>3</sup>Pest damage: Index of pest damage was determined at about 2 months after planting. 10= maximum pest damage (100% infection). Pest damage was caused by thrips, silverleaf whiteflies, aphids, the melon fly, angular leaf spot, and possibly by low nematode pressure. Low numbers (low pest pressure) are desirable.

<sup>4</sup>Taste index: A non-scientific taste panel of 4 people informally evaluated several of the varieties and rated them from 1-10 (ranging from poorest to best tasting). Desirable quality parameters included crispness, texture, small seed cavity, and absence of off-flavors. The data shown is the mean taste panel ratings (N=3-4).



Table 3. cont.

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Fruit length (inches)	Fruit diameter (inches)	Plant vigor Index (1-10)	Plant Height (in)	Pest damage (1-10)	Taste Index (1-10)
Progress	186.19	276.47	304.31	7.48	1.89	3/2	30	8	6.0
Semiwhite	186.00	308.75	331.50	12.20	1.81	4/4	27-38	5	7.8
Tasty Green	184.63	295.53	340.81	9.45	1.69	9/2	46-58	8	7.2
Everslice	180.56	338.91	390.09	14.17 (J)	1.88	6/6	42	4	NA
HASL-023	180.00	250.31	282.94	7.48	2.01	7/3	30	5	NA
Indy	179.72	310.78	359.16	7.87	2.07	5/4	37-50	5	8.7
Lucky Strike	168.75	249.19	291.38	7.87	1.97	6/3	31	8	9.0
Centurion	165.94	223.59	282.09	6.30 (P)	2.10	5/4	35	8	NA
Pegasus	162.25	244.50	278.75	7.48	1.81	6/4	31	7	6.7
Summer top	154.00	254.84	291.81	11.02 (I)	1.50	5/2	30-41	7	6.7
Soarer	145.00	227.50	236.75	10.63	1.54	3/8	40-46	3	7.7
SRQ-2389	142.31	268.88	298.41	11.81 (I)	1.61	5/5	37-52	5	NA
SBQ-2450	140.00	180.95	205.25	7.09	1.89	6/4	35	8	8.0
HASL-039	126.75	196.25	225.25	9.06	1.89	6/7	34	4	8.3
Tasty King	126.00	198.84	237.94	8.66	2.02	3/3	23-40	5	5.9
SRQ-3774	124.91	247.41	280.44	11.42 (I)	1.50	4/3	24-30	7	10.0
SBQ-2387	123.47	192.94	216.56	8.27	1.73	5/7	26	5	6.7
Winter Long	118.75	215.75	242.50	7.09	1.77	5/5	32	5	8.0
Palace King	81.56	114.00	129.00	NA (J)	NA	4/2	38-58	9	NA
	78.97	155.31	179.38	14.96 (J)	1.38	4/5	24-38	3	NA

Table 4. Marketable yields from 14 harvests (4.5 weeks) of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Summer 1998.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
Tasty Bright	41891.8ab	54163.2a-d	22920.6a	3561.5b-f	64847.7a	68409.2a	65.1abc	11.8b-g
Palace Pride	40595.2abc	44962.4a-f	21493.8ab	4898.8a-e	62127.1ab	67025.9ab	57.3abcd	13.7ab
Genuine	40329.4abc	54076.4a-d	10670.9c-g	5240.5a-e	50886.5a-d	56241.0a-d	57.6abcd	11.8b-h
Prolific	37166.6abc	46264.4a-f	11812.9c-g	4125.7a-f	49014.9a-e	53140.6a-f	65.9abc	12.3b-e
Semi White	36456.0abcd	54684.0a-d	12629.4c-f	<b>6998.2ab</b>	49085.4a-e	56116.2a-d	57.0abcd	9.9f-k
SBO-2450	35316.7a-e	53642.4a-d	8104.9d-h	3645.6a-f	43421.7a-g	47099.8a-g	63.6abc	10.6c-k
Merry Green	34443.3a-f	34633.2b-j	13177.3b-f	2734.2b-f	47620.6a-f	50354.8a-f	59.0abcd	14.9a
BN-138	34405.3a-f	<b>61975.2ab</b>	9076.0d-h	5848.1abc	43481.4a-g	49329.5a-f	60.2abc	8.8ijk
Panther	33396.3a-f	50517.6a-e	12173.7c-g	<b>8039.8a</b>	45570.0a-f	53609.8a-e	61.9abc	10.4c-k
SxQ-2184	32734.4a-f	48000.4a-f	7595.0e-h	4367.1a-f	40329.4a-h	44696.6a-g	65.1ab	10.6c-k
Harvestmore	32712.7a-f	<b>55204.8abc</b>	8918.7d-h	2669.1b-f	41631.4a-g	44333.1a-g	<b>73.8a</b>	9.9f-k
Winter Long	30531.9a-g	39060.0a-i	17707.2a-d	3352.6b-f	48239.1a-f	51624.3a-f	55.8abcd	12.1b-f
Supersett	29886.3a-g	45570.0a-f	11354.5c-g	4025.3a-f	41164.9a-g	45266.2a-g	53.8abcd	10.0f-k
Speedway	29696.4a-h	46177.6a-f	10215.3c-h	5088.6a-e	39911.7a-h	45000.4a-g	56.3abcd	10.2d-k
Centurion	29132.2a-h	44268.0a-g	10871.7c-g	2864.4b-f	40036.5a-h	42900.9a-h	66.7ab	10.4c-k

**Experiment:** The experiment consisted on growing each variety on trellis on a 20-foot long plot, one replication per variety.

Spacing was 8 inches between plants in the row, and 5 feet between rows. The crop was drip irrigated.

**Data analysis:** The data was run through a statistical analysis using the harvesting dates (14 dates) as replications. This is not a true replicated experiment, so the analysis may only provide insight on general trends in terms of yields. Numbers followed by the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval ( $P < 0.05$ ).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.

Table 4. cont.

Cultivar (oz)	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A
SL-031	28985.7a-h	42879.2a-g	11495.5c-g	5359.9a-e	40516.6a-h	45876.5a-g	58.3abcd	10.3c-k
Tasty Green	28562.6a-h	41750.8a-h	7193.5e-h	2151.0c-f	35756.2c-k	37907.2c-i	76.9a	11.2c-h
Everslice	28253.4a-h	34633.2b-j	19481.2abc	5050.7a-e	47772.5a-f	52823.2a-f	49.1abcd	13.0bcd
Pegasus	27927.9a-h	42879.2a-h	9168.2d-h	4443.1a-f	37096.1b-j	41539.2a-h	65.8abc	10.1e-k
Indy	27211.8a-i	36759.8a-j	11845.5c-g	2476.5c-f	39087.1b-i	41563.6a-h	63.8abc	11.6c-h
Timor	25424.2a-j	38929.8a-i	9697.2d-h	3349.9b-f	35121.4c-k	38471.4c-i	59.0abcd	10.4c-k
Lucky Strike	25142.1a-j	46264.4a-f	8075.1d-h	4936.7a-e	33217.3c-k	38154.0c-i	67.1ab	8.4jk
SL-041	25063.5a-j	46785.2a-f	7139.3e-h	3645.6a-f	32240.8c-k	35886.4c-i	63.0ab	8.4jk
SL-025	24835.6b-j	34633.2b-j	9265.9d-h	2392.4c-f	34139.5c-k	36531.9c-i	66.7ab	11.0c-i
Dasher II	24507.4b-j	38365.6a-i	10614.0c-g	5888.8abc	35121.4c-k	41010.3b-h	56.8abcd	10.1e-k
SRQ-2389	24341.9b-j	37063.6a-j	9000.1d-h	4974.7a-e	33380.0c-k	38316.8c-i	49.1abcd	10.1e-k
Soarer	23962.2b-j	36456.0a-j	4594.9fgh	2430.4c-f	28595.2d-k	31025.6d-i	73.3a	10.6c-k
Summer top	22785.0b-j	34025.6b-j	12645.7c-f	3113.9b-f	35430.7c-k	38544.6c-i	51.1abcd	10.8c-i
Daytona	22405.2b-j	32810.4b-j	15114.0a-e	4139.3a-f	37557.3b-j	41696.5a-h	52.3abcd	10.8c-i
So. Delight	22391.6b-j	33287.8b-j	10155.6c-h	4407.8a-f	32547.3c-k	36955.1c-i	59.8abcd	11.1c-i
Progress	22215.3b-j	31031.0c-j	10261.4c-h	3103.1b-f	32512.0c-k	35650.4c-i	61.7abc	11.4c-i
SL-039	19852.7c-k	27081.6c-k	6770.4e-h	1622.1c-f	26658.4d-l	28280.5e-i	66.8ab	10.8c-i
Sure Green	15727.1d-k	25389.0d-k	11672.0c-g	2468.4c-f	27434.2d-k	29902.6d-i	54.5abcd	9.7g-k
SxQ-3775	15233.4e-k	18748.8f-k	9244.2d-h	1009.0ef	24477.6e-l	25486.6f-j	54.9abcd	12.5bc
SRQ-3774	14647.5e-k	20832.0e-k	3287.5gh	2636.5b-f	17935.0f-l	20571.6g-j	62.4abc	10.7c-j
Sw. Alphee	13974.8f-k	21266.0e-k	8126.6d-h	4405.1a-f	22139.4f-l	26544.5e-j	41.7b-e	10.0f-k
SL-023	9797.5g-k	15624.0g-k	4915.0fgh	1204.3def	14712.6h-l	15916.9hij	54.8abcd	9.6g-k
Palace King	9130.3h-k	13844.6h-k	4744.2fgh	2267.6c-f	13874.4f-l	16142.1hij	41.9ced	10.2e-k
SBO-2387	7348.2i-k	10546.2i-k	4394.2fgh	2270.3c-f	11742.4jkl	14012.8ij	48.8abcd	10.5c-k
Tasty King	5400.6jk	8593.2jk	5221.6fgh	2506.3b-f	10652.0kl	13188.2ij	39.2de	9.6g-k
	1573.2k	2604.0k	889.7h	0.00f	2462.9l	2462.9j	63.4abc	9.5h-k

Table 5. Early marketable yields from 6 harvests (2 weeks) of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Summer 1998.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
Genuine	23403.4a	31248.0ab	5972.9abc	3206.2ab	29376.4a	32582.5a	71.2ab	11.8a-e
Palace Pride	22671.0ab	24217.2a-d	7030.8abc	1985.5ab	29701.9a	31687.4ab	75.4ab	14.0ab
Jazzier	20587.9abc	27862.8abc	2766.7abc	2880.7ab	23354.6a-d	26235.3a-d	72.8ab	11.2a-g
BN-138	18830.2a-d	34633.2a	3010.9abc	1139.2ab	21841.0a-e	22980.3a-f	77.5ab	7.9g
Tasty Bright	18228.0a-e	21700.0a-d	9141.1a	949.4b	27369.1ab	28318.5abc	81.5ab	13.2abc
SL-018	17381.7a-f	24217.2a-d	3124.8abc	2880.7ab	20506.5a-f	23387.2a-f	70.3abc	11.1a-g
Speedway	17300.3a-f	27342.0abc	5077.8abc	1871.6ab	22378.1a-e	24249.7a-e	71.6ab	10.4c-g
Tasty Green	16681.9a-f	20050.8a-e	9065.2ab	2848.1ab	25747.0abc	28595.2abc	60.7abc	13.1abc
SL-025	16388.9a-f	26040.0abc	5777.6abc	2978.3ab	22166.5a-e	25144.9a-d	68.0abc	10.1c-g
Prolific	15434.1a-f	21266.0a-d	3526.2abc	1464.7ab	18960.4a-f	20425.1a-f	75.7ab	11.3a-f
SxQ-2184	15412.4a-f	21613.2a-d	2766.7abc	862.6b	18179.2a-f	19041.7a-g	74.8ab	10.3c-g
SbQ-2450	14593.2a-g	20311.2a-e	2148.3abc	900.5b	16741.5a-g	17631.2a-g	84.0a	11.4a-f
Merry Green	14566.1a-g	15624.0b-f	6379.8abc	895.1b	20945.9a-f	21841.0a-f	66.0abc	14.1a
Dasher II	13833.7a-h	20832.0a-d	2799.3abc	1302.0ab	16633.0a-g	17935.0a-g	63.1abc	10.3c-g
SL-031	13719.8a-h	18228.0a-f	2766.7abc	1009.0ab	16486.6a-g	17495.6a-g	82.8a	12.3a-e
Supersett	13671.0a-h	20311.2a-e	5419.5abc	1350.8ab	19090.6a-f	20457.7a-f	66.2abc	10.1c-g
Panther	13616.7a-h	20832.0a-d	2875.2abc	434.0ab	16492.0a-g	16926.0a-g	83.2a	10.5c-g

**Experiment:** The experiment consisted on growing each variety on trellis on a 20-foot long plot, one replication per variety.

Spacing was 8 inches between plants in the row, and 5 feet between rows. The crop was drip irrigated.

**Data analysis:** The data was run through a statistical analysis using the harvesting dates (9 dates) as replications. This is not a true replicated experiment, so the analysis may only provide insight on general trends in terms of yields. Numbers followed by the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval ( $P < 0.05$ ).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.

Table 5. cont.

Cultivar	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
So. Delight	12694.5a-h	17707.2a-f	4833.6abc	1660.0ab	17528.2a-g	19171.9a-g	72ab	10.8a-g
SL-041	12645.7a-h	17707.2a-f	3954.8abc	1253.2ab	16600.5a-g	17853.7a-g	84.1a	10.7b-g
Timor	12450.4a-h	16405.2a-f	4394.2abc	569.6b	16844.6a-g	17414.2a-g	79.2ab	11.7a-e
Lucky Strike	12238.8a-h	21352.8a-d	3694.4abc	2896.9ab	15916.9a-g	18830.2a-g	69.0abc	9.0efg
Winter long	12092.3a-h	23956.8a-d	3124.8abc	325.5b	15217.1a-g	15542.6a-g	77.4ab	8.1gf
Progress	11956.7a-h	14756.0b-f	4047.0abc	596.7b	16003.7a-g	16600.5a-g	79.1ab	12.5a-d
Soarer	11604.1a-h	15103.2b-f	3010.9abc	1009.0ab	14614.9a-g	15624.0a-g	74.5ab	11.4a-f
Daytona	11197.2a-h	15624.0b-f	3987.4abc	1171.8ab	15184.6a-g	16356.4a-g	58.4abc	12.1a-e
Pegasus	10497.4a-h	15190.0b-f	2902.4abc	786.6b	13399.7a-g	14186.4a-g	71.5ab	11.3a-f
Harvestmore	9873.5a-h	12152.0b-f	5099.5abc	1171.8ab	14973.0a-g	16144.8a-g	73.8ab	13.1abc
SRQ-3774	9168.2b-h	12152.0b-f	1790.2bc	705.2b	10958.5b-g	11663.7c-g	76.7ab	11.4a-f
Everslice	8837.3b-h	13020.0b-f	3059.7abc	1432.2ab	11913.3a-g	14728.9a-g	59.2abc	10.3c-g
Indy	8788.5b-h	12586.0b-f	3146.5abc	813.7b	11935.0a-g	12748.7b-g	74.3ab	10.4c-g
Centurion	8652.9b-h	15190.0b-f	3933.1abc	1383.4ab	12586.0a-g	13969.4a-g	54.1abc	9.4d-g
SL-039	7942.2c-h	12152.0b-f	2039.8abc	412.3b	9982.0b-g	10394.3c-g	77ab	10.4c-g
Suregreen	7649.2c-h	11197.2c-f	1350.8c	699.8b	9000.1c-g	9716.2c-g	84.2a	10.9a-g
SL-023	5045.2d-h	8680.0c-f	3634.7abc	922.2b	8680.0c-g	9602.2c-g	61.4abc	9.4d-g
Palace King	4882.5d-h	6076.0def	2007.2abc	108.5b	6889.7d-g	6998.2d-g	53.2abc	12.5a-d
Sw. Alpee	4529.9e-h	6076.0def	2441.2abc	949.4b	6971.1d-g	7920.5d-g	42.1bcd	10.7b-g
SxQ-3775	4231.5f-h	6076.0def	2902.4abc	1356.2ab	7133.9d-g	8490.1d-g	45.6abc	10.6c-g
SBO-2387	3906.0fgh	6076.0def	3309.2abc	569.6b	7215.2d-g	7784.9d-g	56.3abc	9.3d-g
	3819.2gh	5728.8def	325.5cabc	954.8ab	4155.5efg	5099.5efg	71.2ab	10.9a-g
	1030.7h	1736.0ef	2495.5abc	575.0b	3526.2fg	4101.3gf	41.1bcd	9.5d-g

Table 6. Yield per 100 ft row length, growth, and fruit quality of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Summer 1998 (14 harvests, 5 weeks).

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Plant vigor <sup>1</sup> Index (1-10) high is better	Plant Height Average (in)	Plant Height maximum (in)	Pest damage <sup>2</sup> 6 wks (1-10) low is better	Pest damage at 8 wks	Comments <sup>3</sup>
Tasty Bright	482.6	747.1	788.1	9	61	73	1	high starting	looks good, Japanese type
Palace pride	467.6	715.7	772.2	10	71	77	4	low	ALS, uniform
Genuine	464.6	586.2	647.9	8	47	57	2	low	
Prolific	428.1	564.7	612.2	10	53	67	3	low	looks good, uniform
Semi white	420.0	565.5	646.5	9	71	77	2	low	looks good, white fruit
SBQ-2450	406.8	500.2	542.6	7	43	57	3	high starting	not uniform
Merry Green	396.8	548.6	580.1	8	59	75	2	low	looks good, not too uniform
BN-138	396.4	500.9	568.3	8	28	35	3	low	
Panther	384.7	525.0	617.6	8	47	51	2	low	looks good at 8 wks
SxQ-2184	377.1	464.6	514.9	9	55	67	2	low	looks good
Harvestmore	376.9	479.6	510.7	7	41	41	3	low	looks good, ALS
Winter long	351.7	555.7	594.7	9	67	77	2	low	looks good, v/ uniform, Japanese t
Supersett	344.3	474.2	521.5	8	40	47	1	low	
Speedway	342.1	459.8	518.4	9	47	55	1	high	
Centurion	335.6	461.2	494.2	6	43	67	3	low	looks good at 8 wks.
SL-018	333.9	466.8	528.5	8	43	51	3	low	looks good
SL-031	329.1	411.9	436.7	7	47	55	4	low	ALS
Tasty Green	325.5	550.4	608.5	7	59	69	4	high starting	ALS
Everslice	321.7	427.4	478.6	7	39	55	2	low	
Pegasus	313.5	450.3	478.8	8	43	59	2	low	Japanese type

<sup>1</sup>Plant vigor: An index of plant vigor was determined at approximately 2 months after planting. Here we thus show early/late vigor index determinations. 10= maximum plant vigor. Plant vigor may indicate the ability of the plant to “outgrow” attack from nematodes, insects, mites and diseases.

<sup>2</sup>Pest damage: An index of pest damage was determined at about 6 and 8 weeks after planting. 10= maximum pest damage (100% infection). Pest damage was caused by thrips, whiteflies, aphids, the melon fly, root-knot nematodes (some plots) and angular leaf spot. Low numbers (low pest pressure) are desirable. See the “comments” column for a list of plants that infected by Angular leaf spot (ALS).

<sup>3</sup>ALS= Angular leaf spot. ALS infection on this plot was light on the spring planting, increased for this second planting, and became more severe on the third planting (See Table 8 for a rating of ALS infection for the different varieties on the 3<sup>rd</sup> plant-

Table 6. continues

Cultivar	Grade A Wt.	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Plant vigor Index (1-10)	Plant Height Average (in)	Plant Height maximum (in)	Pest damage 6 wks (1-10)	Pest damage at 8 wks	Comments
Indy	292.9	404.6	443.2	8	39	51	3	low	ALS, not uniform
Timor	289.7	382.7	439.5	6	41	47	5	med. high	ALS, weak growth
Lucky Strike	288.7	371.4	413.4	6	31	39	2	high starting	pickling type
SL-041	286.1	393.3	420.9	5	39	61	3	high starting	weak, not uniform
SL-025	282.3	404.6	472.4	7	39	53	4	high	ALS
Dasher II	280.4	384.5	441.4	8	47	55	3	low	ALS, not too uniform
SRQ-2389	276.1	329.4	357.4	7	39	43	1	low	uniform
Soarer	262.5	408.2	444.1	7	59	73	7	low	ALS, Japanese type
Summer top	258.1	432.7	480.4	6	55	67	6	low	ALS, not uniform
Daytona	258.0	375.0	425.7	7	43	47	4	low	ALS
So. Delight	255.9	374.6	410.7	6	51	67	6	high	ALS, weak growth
Progress	228.7	307.1	325.8	7	51	57	4	v. high	
SL-039	181.2	316.1	344.5	6	28	31	3	low	
Sure Green	175.5	282.0	293.6	7	55	77	5	high starting	ALS
SxQ 3775	168.7	206.6	237.0	7	33	33	4	low	ALS
SRQ-3774	161.0	255.1	305.8	6	51	59	2	low	weak growth
Sw. Alphee	112.9	169.5	183.4	4	47	64	6	high	
SL-023	105.2	159.8	186.0	6	51	75	6	high	
Palace King	84.7	135.3	161.4	7	51	69	5	high	
SBQ-2387	62.2	122.7	151.9	7	33	47	2	high starting	ALS
Tasty King	18.1	28.4	28.4	4	24	24	2	low	

Table 7. Marketable yields to date from 5 harvests (approx. 2 weeks) of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, fall 1998.

Cultivar	Grade A Wt.	Grade A No.	Off Grade Wt.	Cull Wt.	Mkt. Wt	Tot. Wt.	Grade A (% of total)	Fruit Wt. Grade A (oz)
Semiwhite	20669.2a	34720.0a	5669.1a	108.5	26338.3a	26446.8a	78.1	9.5
HASL-041	17848.2ab	26474.0ab	3960.2a-e	732.3	21808.5ab	22540.8ab	79.1	10.7
Palace Pride	13318.4abc	15190.0b-f	4095.8a-d	217.0	17414.2a-d	17631.2a-d	80.8ab	14.0
Merry Green	13291.2abc	16058.0b-f	4367.1abc	976.5	17658.3abc	18634.8abc	71.3	13.2
Genuine	12938.6a-d	19964.0bcd	1573.2	325.5	14511.8b-f	14837.3b-h	87.2ab	10.3
SQ-2184	12558.9a-d	20832.0bc	2821.0	461.1	15379.8b-e	15841.0a-f	79.8ab	9.6
HASL-039	11636.6b-e	19964.0bcd	3851.7	1112.1	15488.3b-e	16600.5a-e	70.1	9.3
Tasty King	11528.1b-e	18662.0b-e	3119.3	325.5	14647.5b-f	14973.0b-h	82.5ab	9.8
Prolific	10470.2b-f	18228.0b-e	3743.2	1057.8	14213.5b-g	15271.3b-g	68.5	9.1
Jazzer	9846.4b-g	16058.0b-f	271.2	271.2	10117.6	10388.8	75.5	9.8
Timor	9439.5b-g	14322.0	1220.6	2007.2abc	10660.1	12667.3	74.5	10.5
Pegasus	9032.6	13454.0	1790.2	461.1	10822.8	11284.0	80.0	10.7
Winterlong	8408.7	12586.0	596.7	135.6	9005.5	9141.1	91.9a	10.6
HASL-023	7812.0	13454.0	4855.3ab	2658.2a	12667.3	15325.6b-g	50.9	9.2
Summer Top	7676.4	13454.0	2332.7	813.7	10009.1	10822.8	70.9	9.1
BN-138	7649.2	15190.0	1112.1	2034.3abc	8761.3	10795.7	70.8	8.0
Indy	7323.7	12586.0	2332.7	1925.8a-d	9656.5	11582.3	63.2	9.3
Centurion	7269.5	13020.0	4123.0a-d	1844.5a-e	11392.5	13237.0b-i	54.9	8.9
HASL-031	7133.9	12152.0	1220.6	54.2	8354.5	8408.7	84.8ab	9.3

**Experiment:** The experiment consisted on growing each variety on trellis on a 20-foot long plot, one replication per variety.

**Spacing** was 8 inches between plants in the row, and 5 feet between rows. The crop was drip irrigated as needed.

**Data analysis:** The data was run through a statistical analysis using the harvesting dates (9 dates) as replications. This is not a true replicated experiment, so the analysis may only provide insight on general trends in terms of yields. Numbers followed by the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval ( $P < 0.05$ ).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.



Table 7, continues.

Cultivar	Grade A Wt.	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
HASL-018	6781.2	10850.0	4068.7a-d	596.7	10850.0	11446.7	59.2	10.0
Suregreen	6699.8	9982.0	3255.0	759.5	9954.8	10714.3	62.5	10.7
Panther	6103.1	10850.0	2414.1	1654.6	8517.2	10171.8	60.0	9.0
Speedway	5940.3	10850.0	1302.0	1329.1	7242.3	8571.5	69.3	8.7
Everslice	5913.2	10850.0	2983.7	895.1	8897.0	9792.1	60.3	8.7
Dasher II	5886.1	11284.0	1085.0	2197.1ab	6971.1	9168.2	64.2	8.3
So. Delight	5723.3	9982.0	1898.7	434.0	7622.1	8056.1	71.0	9.1
SRQ-3744	5425.0	9114.0	1844.5	868.0	7269.5	8137.5	66.6	9.5
Soarer	5289.3	8246.0	1085.0	1708.8a-f	6374.3	8083.2	65.4	10.2
Lucky Strike	5262.2	11718.0	2034.3	1112.1	7296.6	8408.7	62.5	7.1
SBO-2450	4882.5	8680.0	1898.7	922.2	6781.2	7703.5	63.3	9.0
Supersett	4638.3	8246.0	1763.1	840.8	6401.5	7242.3	64.0	9.0
SQ-3775	4529.8	9114.0	1220.6	271.2	5750.5	6021.7	75.2	7.9
Palace King	4394.2	7378.0	1220.6	0.0	5614.8	5614.8	78.2	9.5
SBO-2387	4285.7	7812.0	2007.2	651.0	6293.0	6944.0	61.7	8.7
Sw. Alphee	3987.3	7378.0	461.1	623.8	4448.5	5072.3	78.6	8.6
SRQ-2389	3960.2	7812.0	461.1	488.2	4421.3	4909.6	80.6ab	8.1
Tasty Bright	3363.5	6944.0	732.3	949.3	4095.8	5045.2	66.6	7.7
HASL-025	2929.5	5642.0	542.5	1003.6	3472.0	4475.6	65.4	8.3
Progress	2604.0	4774.0	162.7	406.8	2766.7	3173.6	82.0	8.7
Daytona	1763.1	3472.0	1139.2	976.5	2902.3	3878.8	45.4	8.1
Harvestmore	1464.7	3038.0	488.2	217.0	1953.0	2170.0	79.4ab	7.7
Tasty Green	705.2	1302.0	2224.2	868.0	2929.5	3797.5	18.5	8.6

**Table 8. Yield per 100 ft row length, growth, and fruit quality of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, fall 1998 (5 harvests, approx. 2 weeks).**

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Plant vigor <sup>1</sup> Index (1-10)	Plant Height Average (in)	Plant Height maximum (in)	ALS damage <sup>2</sup> index (1-10)	Other pest <sup>3</sup> damage (1-10)	comments
HASL-041	205.6	251.2	259.6	10 7	72.8 72.8	76.7 76.7	3 8	2 2	v/ uniform uniform, weak growth
Palace Pride	153.4	200.6	203.1	10	72.8	76.7	5	2	ALS mid-canopy
Merry Green	153.1	203.4	214.6	7	66.9	74.8	9	5	
Genuine	149.0	167.1	170.9	8	74.8	77.5	7	3	
SQ-2184	144.6	177.1	182.5	8	53.1	59.0	7	3	decay at mid-canopy
HASL-039	134.0	178.4	191.2	10	68.9	74.8	8	3	
Tasty King	132.8	168.7	172.5	8	62.9	66.9	8	3	uniform growth
Prolific	120.6	163.7	175.9	7	66.9	75.9	10	3	lower canopy decay
Jazzer	113.4	116.5	119.6	9	55.1	62.9	3	2	
Timor	108.7	122.8	145.9	6	51.1	59.8	9	3	uniform, nematodes
Pegasus	104.0	124.6	130.0	8	59.0	70.8	5	3	lower canopy decay
Winterlong	96.8	103.7	105.3	10	74.8	80.7	9	2	lower canopy decay
HASL-023	90.0	145.9	176.5	8	70.8	75.5	8	3	
Summer Top	88.4	115.3	124.6	7	62.9	68.5	8	3	lower canopy decay
BN-138	88.1	100.9	124.3	8	49.2	51.1	7	3	lower canopy decay
Indy	84.3	111.2	133.4	8	55.1	70.8	7	3	decay at mid canopy
Centurion	83.7	131.2	152.5	7	59.0	70.8	7	3	lower canopy decay
HASL-031	82.1	96.2	96.8	10	72.8	77.5	6	3	uniform growth

<sup>1</sup>Plant vigor: An index of plant vigor was determined at approximately 7 weeks after planting. 10= maximum plant vigor. Plant vigor may indicate the ability of the plant to “outgrow” attack from nematodes, insects, mites and diseases.

<sup>2</sup>ALS= Angular leaf spot infected all plots by the third cucumber (fall) planting. Varieties were rated for the degree of ALS infection (10= highest infection of the lower canopy, with infection reaching the mid and top canopy sections).

<sup>3</sup>Pest damage: Index of damage by other pests was determined at about 7 weeks after planting. 10= maximum pest damage (100% infection). Pest damage was caused by thrips, whiteflies, aphids, the melon fly, and root-knot nematode. Low numbers (low pest pressure) are desirable.

Table 8., cont.

Cultivar	Grade A Wt.	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Plant vigor Index (1-10)	Plant Height Average (in)	Plant Height maximum (in)	ALS damage index (1-10)	Other pest damage (1-10)	comments
HASI-018	78.1	125.0	131.8	8	68.9	74.8	8	2	uniform growth, if chlorosis
Suregreen	77.1	114.6	123.4	9	72.8	75.9	8	3	
Panther	70.3	98.1	117.1	7	59.0	67.7	9	3	lower canopy decay
Speedway	68.4	83.4	98.7	6	49.2	57.0	6	3	lower canopy decay
Everslice	68.1	102.5	112.8	6	61.0	71.6	8	3	lower canopy decay
Dasher II	67.8	80.3	105.6	7	55.1	62.9	7	3	lower canopy decay
So. Delight	65.9	87.8	92.8	8	66.9	74.8	7	3	lower canopy decay
SRQ-3744	62.5	83.7	93.7	6	55.1	76.7	8	3	lower canopy decay
Soarer	60.9	73.4	93.1	6	66.9	72.8	8	3	lower canopy decay
Lucky Strike	60.6	84.0	96.8	4	31.5	43.3	8	3	uniform, low canopy decay
SBQ-2450	56.2	78.1	88.7	9	55.1	66.9	3	3	looks good
Supersett	53.4	73.7	83.4	5	47.2	59.0	8	3	plant decline
SQ-3775	52.1	66.2	69.3	7	47.2	57.0	5	3	
Palace King	50.6	64.6	64.6	6	59.0	72.8	7	3	poor stand, 6 pls
SBQ-2387	49.3	72.5	80.0	7	47.2	62.9	7	3	nematode?
Sw. Alpee	45.9	51.2	58.4	5	51.1	58.2	5	8	
SRQ-2389	45.6	50.9	56.5	7	51.1	61.0	6	3	
Tasty Bright	38.7	47.1	58.1	8	62.9	70.8	3	3	
HASI-025	33.7	40.0	51.5	4	55.1	60.2	5	8	nematode?
Progress	30.0	31.8	36.5	6	64.9	66.9	8	3	some stunted pls
Daytona	20.3	33.4	44.6	6	55.1	68.9	7	3	
Harvestmore	16.8	22.5	25.0	5	43.3	64.9	7	3	decline 4 plants
Tasty Green	8.1	33.7	43.7	4	53.1	64.9	5	8	nematode?

## Cucumber Variety Seed Descriptions

### BN 138 (Hungnong)

Centurion (Rogers/Sandoz) - Among recommended cultivars in Florida in 1980s. But was not among top yielders in 1988 trials in Florida. However it was among the top yielders for total yields (including US Fancy, US No. 1, and other marketable fruit). Recommended variety in Florida. Tolerance to angular leaf spot, anthracnose, CMV, downy mildew, powdery mildew, and scab.

Dasher II (Petoseed) Outstanding yields, quality and strong disease tolerance have made Dasher II the best-selling, premium gynoecious hybrid American slicer type in the world. Fruits are straight and have uniform dark color. Among highest early and total yields in Florida trials in two locations (1988). Standard variety in many areas including Hawaii, Alabama, Florida, Georgia, Michigan. Tolerant /resistant to Downy Mildew, Powdery Mildew, Anthracnose, Angular Leaf Spot, Scab and C.M.V.

Daytona (Petoseed) F1, A new early gynoecious hybrid with excellent disease resistance and fruit quality. The fruit quality is exceptional. This hybrid has performed very well on plastic and ground culture. Fruits hold their length when other varieties shorten under stress. Tolerant /resistant to Downy Mildew, Powdery Mildew, Anthracnose race 2, Angular Leaf Spot, Scab, PRSV, ZYMV, WMV and C.M.V.

Everslice (Rogers/Sandoz) - Recommended variety in Florida. Tolerance to angular leaf spot, anthracnose, CMV, downy mildew, powdery mildew, and scab. Harvestmore (Rogers/Sandoz)

Genuine (Known-You) Genuine is a slicer, adapted to warm and humid areas. Plants are very vigorous, resistant to CMV and tolerant to mildew. Fruit is about 18" in length and 2" in diameter at slicing stage.

HASL-018 Hyb. (Hazera) Slicing type, dark green color, very uniform shape, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus, Downey Mildew and Powdery Mildew.

HASL-023 Hyb. (Hazera) Slicing type, uniform shape, vigorous plant, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus

HASL-025 Hyb. (Hazera) Slicing type, dark green color, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus., Downey Mildew and Powdery Mildew.

HASL-031 Hyb. (Hazera) Slicing type, dark green color, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus, Downey Mildew and Powdery Mildew.

HASL-039 Hyb. (Hazera) Slicing type, dark green color, very uniform shape, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus, Downey Mildew and Powdery Mildew.

HASL-041 Hyb. (Hazera) Slicing type, dark green color, 15-17 cm fruit length and predominantly female flowering. Resistant or Tolerance: Cucumber Mosaic Virus, Zucchini Yellow Mosaic Virus, Downey Mildew and Powdery Mildew.

Indy (Petoseed) It is a very early gynoecious slicer with exceptional fruit quality and some of the strongest disease resistance available. The vigorous dark green plants set early and provide high yields of long, dark green fruit. A multi-virus variety, tolerant /resistant to ZYMV, PRSV, WMV2, C.M.V., Powdery Mildew, Angular Leaf Spot, Scab, and Anthracnose race 2.

Merry Green (Known-You)

Palace King (Takii)

Palace Pride (Takii)

Panther (Sun) Slicing type, compared to Supersett/ Dasher II. Comments from Western N. Carolina: medium-long fruit, bumpy dark to medium green. Variability in shape and color from harvest to harvest. Showed good early yields in Western No. Carolina.

Pegasus (Takii) Vigorous, easy grower, very prolific, with a good taste. Glossy deep green color, very uniform, smooth fruits with white spine. Burpless. 21-22 cm long, 2.5-3.0 cm in diameter. Double fruit setting on one node on high percentage. Many side laterals enabling productive. Good tolerance to cold.

Progress (Takii) High Yielding, burpless type. 21-22 cm long. 2.5-3.0 cm diameter. 90-100g fruit. Glossy deep green color. Very good taste. High heat tolerance. Tolerant to Downy Mildew, Powdery Mildew, Anthracnose and C.M.V.

Prolific- F1 (Sakata), 50 days to harvest (Alabama). Tolerance/resistance to scab, powdery mildew, downy mildew, angular leaf spot. Was among top early-yielder in North Alabama trials in the spring 1996. Total marketable yields was below the top yielders but still higher than for Dasher II.

SBQ 2387 (Sun) Slicing type, MVR, compared to Conquistador/ Dasher II

SBQ 2450 (Sun) Slicing type, MVR, compared to Conquistador/ Dasher II

Semiwhite H.N. (Hungnong)

Soarer (Takii) Burpless, glossy deep green color. Nice taste. Very productive. 21-22 cm long. 2.5-3.0 cm diameter. White spined. High tolerance to various disease, Downy Mildew, Powdery Mildew, Anthracnose and C.M.V. Withstand heat very well. 90-100g per fruit.

Southern Delight (Takii) Attractive deep green color. 22-23 cm long. 2.5-3.0 cm diameter. 90-100g weight. Burpless. Good taste. White spined. High heat tolerance. Some tolerance to Downy Mildew, Powdery Mildew, Anthracnose and C.M.V. Productive grower.

Speedway (Petoseed) 56 days Early gynocious slicer is a good producer of uniform dark green, straight fruits averaging 8 inches long.). Early harvest, high yield potential. Vigorous plants with tolerance to C.M.V., Powdery Mildew, Downy Mildew, Scab, Anthracnose and Angular Leaf Spot.

SRQ 2389 (Sun) Slicing type, MVR, compared to Conquistador/ Dasher II

SRQ 3744 (Sun) Slicing type, MVR, compared to Conquistador/ Dasher II

Summer Top (Takii) High Tolerance to Downy Mildew and Powdery Mildew. Deep green, 21-22 cm long. Produces very uniform fruits making high yield of grade I. Dependable grower. 90-100 g in weight. White spined and burpless.

Supersett (F1) (Johnny's) 52 days High yielding for the main crop. A long green slicer with good tolerance to disease and stress. Reliable and uniform early slicer. 8-9" in length and uniformly dark green color. Among highest early and total yields in Florida trials conducted in two locations (1988). Recommended variety in Florida. Tolerant to Downy Mildew, Powdery Mildew, Anthracnose, Angular Leaf Spot, Scab and C.M.V.

Sure Green (Known-You) A light green cucumber. Plants are strong, prolific, and tolerant to downy mildew and mosaic. Fruit is long (~11") x 2" at slicing stage. Flesh is thick with very good quality. Suitable for storage and shipping.

SXQ 2184 (Sun) Slicing type, MVR, compared to Conquistador/ Dasher II

SXQ 3775 (Sun) Slicing type, compared to Turbo/ Dasher II (Turbo has a dark green color, hybrid vigor, high yields, and extra fruit length, from Petoseed).

Sweet Alpee (Sakata)

Tasty Bright (Sakata)

Tasty Green (Sakata) 52 days "Burpless" type produces long, slender, smooth-skinned fruits. Early, heavy yields; long harvest. Best at 9 inches x 1 inch but holds at larger sizes. Resistant to powdery mildew, highly Tolerant to Downy Mildew; tolerate high temperature/humidity.

Timor (Hazera)

Winter Long green (Hungnong)

Hazera Seed Limited  
POB 1565  
Haifa, Israel

Hungnong Seed Co., Ltd  
3065 Pacheco Pass Hwy, Gilroy CA 95020  
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Table 9. Marketable yields from 13 harvests of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Fall 1998.

Cultivar	Grade A Wt. (lb./Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb./Acre)	Cull Wt. (lb./Acre)	Mkt. Wt (lb./Ac)	Tot. Wt. (lb./Ac)	Grade A (% of total)	Fruit Wt. Grade A (oz)
HASI-041	26,393.9bc	41,243.0bcd	10,116.8bcd	3,226.5c-i	36,510.7bc	58,401.7a	70.0a	8.8
Palace Pride	28,887.0b	36,898.6b-g	9,683.0b-f	2,196.8f-i	38,570.1b	39,737.3bcd	52.9a-f	10.2
Merry Green	16,978.8b-i	24,317.0d-m	5,941.7c-l	1,382.2hi	22,920.6b-k	40,770.5bcd	71.0a	12.5
Genuine	24,549.7bcd	41,243.0bcd	6,103.9c-l	2,602.3e-i	30,650.1bcd	24,302.9e-n	64.5abc	11.1
SQ-2184	29,267.8b	53,373.3b	8,381.9b-i	4,584.1b-g	37,649.7b	33,256.0cdef	62.4abcd	9.5
HASI-039	26,122.4bc	49,931.7bc	12,909.6ab	8,896.7a	39,032.0b	42,233.9bc	67.3ab	8.7
Tasty King	15,487.2c-j	26,460.9d-l	9,386.8b-g	1,981.7f-i	24,874.1b-j	47,928.7ab	54.8a-f	8.3
Prolific	21,023.5b-f	38,196.3b-f	8,491.2b-i	4,393.7b-g	29,511.1b-f	26,852.3d-m	51.0a-g	9.3
Jazzier	23,678.7b-e	39,494.0bcde	5,941.7c-l	2,006.4f-i	29,620.5b-f	33,904.8bcde	57.7a-e	8.8
Timor	14,538.7c-k	29,507.6c-j	4,259.7g-l	4,041.1b-g	18,798.4e-m	31,626.9c-h	65.3abc	9.5
Pegasus	19,260.3b-h	32,102.9c-i	9,820.6b-e	2,143.9f-i	29,077.4b-g	22,839.5e-o	50.3a-g	7.8
Winterlong	21,048.1b-f	32,102.9c-i	6,809.1c-k	1,438.7hi	27,857.3b-h	31,221.4c-i	45.3a-g	9.6
HASI-023	19,069.9b-h	35,601.0b-h	15,353.2a	6,671.6ab	34,423.2bcd	29,296.0c-j	67.3ab	10.4
Summer Top	9,115.3f-k	16,474.6g-m	5,046.0d-l	1,629.1f-i	14,157.8g-m	41,094.9bcd	42.0a-g	8.5
BN-138	12,341.8d-k	27,363.7d-l	3,635.5h-l	5,397.9bcde	15,977.4e-m	15,787.0i-p	34.3defg	8.8
Indy	19,937.4b-g	36,898.6b-g	7,948.1b-j	5,723.1bcd	27,885.5b-h	21,376.1e-p	42.0a-g	7.2
Centurion	14,944.2c-k	29,056.3d-j	11,068.9abc	5,994.6bc	26,013.1b-i	33,608.6b-f	62.6abcd	8.6
HASI-031	15,839.9c-j	29,959.0c-j	4,531.2e-l	1,463.3g-i	20,371.1d-m	32,007.7c-g	45.4a-g	8.2
						21,834.e-p	53.4a-f	8.4

**Experiment:** The experiment consisted on growing each variety on trellis on a 20-foot long plot, one replication per variety.

**Spacing** was 8 inches between plants in the row, and 5 feet between rows. The crop was drip irrigated as needed.

**Data analysis:** The data was run through a statistical analysis using the harvesting dates (13 dates) as replications. This is not a true replicated experiment, so the analysis may only provide insight on general trends in terms of yields. Numbers followed by the same letter within each column are not statistically different according to Duncan's New multiple range test at a 95% confidence interval ( $P < 0.05$ ).

**Yields:** Yields per acre were based on an estimate of 8,680 linear foot row per acre. In our experiment we grew each variety on 20 a foot row length, so a direct conversion was used to estimate yields per acre.

Table 9., continues

Cultivar (oz)	Grade A Wt. (lb/Acre)	Grade A No. (no. fruit/Ac)	Off Grade Wt. (lb/Acre)	Cull Wt. (lb/Acre)	Mkt. Wt (lb/Ac)	Tot. Wt. (lb/Ac)	Grade A (% of total)	Fruit Wt. Grade A
Suregreen	11,255.7e-k	18675.0e-l	8572.3b-h	2630.5e-i	19,828.1d-m	22,458.6e-p	42.6a-g	9.6
Panther	19,341.4b-h	28210.0d-l	6862.0c-k	1734.9f-i	26,203.5b-i	27,938.4c-l	67.7ab	10.9
Speedway	8,491.2f-k	15628.3h-m	5860.6c-l	4774.5b-f	14,348.3g-m	18,988.8e-p	29.4efg	8.6
Everslice	10,116.8f-k	18223.6f-m	4531.2e-l	3473.3c-h	14,648.0f-m	18,117.8f-p	42.9a-g	8.8
Dasher II	10,145.0f-k	19803.4e-l	4665.2e-l	2792.7e-i	14,810.2f-m	17,603.0g-p	50.4a-g	8.2
So. Delight	15,868.1c-i	30805.3c-j	6618.7c-i	6047.5bc	22,486.9b-k	28,534.4c-k	54.3a-f	8.2
SRQ-3744	12,394.7d-k	23019.3d-m	7919.9b-j	1357.6hi	20,318.2d-m	21,672.3e-p	54.3a-f	8.6
Soarer	8,272.5f-k	15176.9h-m	6780.9c-k	4284.3b-g	15,053.5f-m	19,341.4e-p	39.2b-g	8.7
Lucky Strike	10,173.2f-k	17377.3f-m	3878.8h-l	2196.8f-i	14,052.1g-m	16,248.9h-p	58.9a-e	9.3
SBO-2450	6,047.5ijk	13427.9i-m	3120.7i-l	2958.5d-i	9,168.2klm	12,123.2m-p	26.3fg	7.2
Supersett	14,810.2c-k	29056.3d-k	5994.6c-l	3607.3c-h	20,804.8d-l	24,412.2e-n	52.5a-f	8.1
SQ-3775	7,648.4h-k	13879.3i-m	3526.2h-l	2415.4f-i	11,174.6i-m	13,590.1k-p	33.1defg	8.8
Palace King	8,597.0f-k	16926.0g-m	4340.8f-l	1763.1f-i	12,937.8h-m	14,700.9f-p	38.3b-g	8.1
SBO-2387	6,509.4h-k	10437.7j-m	2115.7kl	299.7f-i	8,625.2klm	8,924.9nop	48.6a-g	9.9
Sw. Alphee	7,867.0h-k	15628.3h-m	4721.6e-l	2196.8f-i	12,585.1i-m	14,782.0e-p	38.8b-g	8.0
SRQ-2389	4,178.6ijk	7842.3klm	1220.0l	1548.0g-i	5,398.6m	6,943.1p	32.0efg	8.5
Tasty Bright	11,689.5e-k	22568.0d-m	4284.3g-l	3173.6c-i	15,977.4e-m	19,151.0e-p	49.4a-g	8.2
HASL-025	5,723.1ijk	11284.0i-m	2306.1kl	1791.3f-i	8,029.2klm	9,820.6nop	29.5efg	8.1
Progress	3,825.9jk	7391.02m	1682.0kl	2821.0d-i	5,508.0m	8,329.0op	33.6defg	8.2
Daytona	5,994.6ijk	11735.3i-m	2277.9kl	1682.0f-i	8,272.5klm	9,954.6nop	36.6c-g	8.1
Harvestmore	6,752.7h-k	13822.9i-m	3769.5h-l	2087.5f-i	10,525.8j-m	12,613.4f-p	49.2a-g	7.8
Tasty Green	5,155.3ijk	10437.7j-m	2687.0jkl	2115.7f-i	7,838.8klm	9,954.6nop	47.7a-g	7.9
	2,577.6k	4344.3m	3445.1h-l	2034.6f-i	6,022.8b-k	8,057.4op	21.7g	9.4



Table 10. Yield per 100 ft row section, growth, and fruit quality of trellised cucumber varieties grown at the UHM Poamoho Experiment Station, Spring 1998 (13 harvests, 4 weeks).

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Fruit length <sup>1</sup> (inches)	Fruit diameter <sup>1</sup> (inches)	Plant vigor <sup>2</sup> Index (1-10) (high is better)	Plant Height (in) (avg/max)	Pest damage <sup>3</sup> (1-10) (low is better)	Taste Index <sup>4</sup> (1-10)
HASL-041	304.08	420.63	457.80	7	72.83	76.77	3	2	
Palace Pride	332.80	444.36	469.71	10	72.83	76.77	8	2	
Merry Green	195.61	264.06	279.99	7	66.93	74.80	5	5	
Genuine	282.83	353.11	383.13	8	74.80	77.56	7	3	
SQ-2184	337.19	433.75	486.57	8	53.15	59.06	7	3	
HASL-039	300.95	449.68	552.17	10	68.90	74.80	8	3	
Tasty King	178.43	286.57	309.36	8	62.99	66.93	8	3	
Prolific	242.21	339.99	390.61	7	66.93	75.98	10	3	
Jazzier	272.80	341.25	364.37	9	55.12	62.99	3	2	
Timor	167.50	216.57	263.13	6	51.18	59.84	9	3	
Pegasus	221.89	334.99	359.69	8	59.06	70.87	5	3	
Winterlong	242.49	320.94	337.51	10	74.80	80.71	9	2	
HASL-023	219.70	396.58	473.44	8	70.87	75.59	8	3	
Summer Top	105.02	163.11	181.88	7	62.99	68.50	8	3	
BN-138	142.19	184.07	246.27	8	49.21	51.18	7	3	
Indy	229.69	321.26	387.20	8	55.12	70.87	7	3	
Centurion	172.17	299.69	368.75	7	59.06	70.87	7	3	
HASL-031	182.49	234.69	251.55	10	72.83	77.56	6	3	

<sup>1</sup>Fruit length and diameter: Determined from 2-3 representative fruit samples from each variety.

<sup>2</sup>Plant vigor: An index of plant vigor was determined at approximately 1 and 2 months after planting. Here we thus show early/late vigor index determinations. 10= maximum plant vigor. Plant vigor may indicate the ability of the plant to “outgrow” attack from nematodes, insects, mites and diseases.

<sup>3</sup>Pest damage: Index of pest damage was determined at about 2 months after planting. 10= maximum pest damage (100% infection). Pest damage was caused by thrips, silverleaf whiteflies, aphids, the melon fly, angular leaf spot, and possibly by low nematode pressure. Low numbers (low pest pressure) are desirable.

<sup>4</sup>Taste index: A non-scientific taste panel of 4 people informally evaluated several of the varieties and rated them from 1-10 (ranging from poorest to best tasting). Desirable quality parameters included crispness, texture, small seed cavity, and ab-

Table 10, continues.

Cultivar	Grade A Wt. (lb/100 ft)	Mkt. Wt. (lbs/100 ft)	Total Wt. (lbs/100 ft)	Fruit length <sup>1</sup> (inches)	Fruit diameter <sup>1</sup> (inches)	Plant vigor <sup>2</sup> Index (1-10) (high is better)	Plant Height (in) (avg/max)	Pest damage <sup>3</sup> (1-10) (low is better)	Taste Index <sup>4</sup> (1-10)
Suregreen	129.68	228.43	258.74	8	68.90	74.80	8	2	
Panther	222.83	301.88	321.87	9	72.83	75.98	8	3	
Speedway	97.83	165.30	218.77	7	59.06	67.72	9	3	
Everslice	116.55	168.76	208.73	6	49.21	57.09	6	3	
Dasher II	116.88	170.63	202.80	6	61.02	71.65	8	3	
So. Delight	182.81	259.07	328.74	7	55.12	62.99	7	3	
SRQ-3744	142.80	234.08	249.68	8	66.93	74.80	7	3	
Soarer	95.31	173.43	222.83	6	55.12	76.77	8	3	
Lucky Strike	117.20	161.89	187.20	6	66.93	72.83	8	3	
SBQ-2450	69.67	105.63	139.67	4	31.50	43.31	8	3	
Supersett	170.63	239.69	281.25	9	55.12	66.93	3	3	
Palace King	88.12	128.74	156.57	5	47.24	59.06	8	3	
Sw. Alpee	99.04	149.05	169.37	7	47.24	57.09	5	3	
SRQ-2389	74.99	99.37	102.82	6	59.06	72.83	7	3	
Tasty Bright	90.63	144.99	170.30	7	47.24	62.99	7	3	
HASL-025	48.14	62.20	79.99	5	51.18	58.27	5	8	
Progress	134.67	184.07	220.63	7	51.18	61.02	6	3	
Daytona	65.93	92.50	113.14	8	62.99	70.87	3	3	
Harvestmore	44.08	63.46	95.96	4	55.12	60.24	5	8	
Tasty Green	69.06	95.31	114.68	6	64.96	66.93	8	3	
	77.80	121.27	145.32	6	55.12	68.90	7	3	
	59.39	90.31	114.68	5	43.31	64.96	7	3	
	29.70	69.39	92.83	4	53.15	64.96	5	8	