2017 Yellow Summer and Zucchini Squash Cultigen Evaluations

Jonathan R. Schultheis
Keith D. Starke
Department of Horticultural Science
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Yellow Summer and

Zucchini Squash Cultigen

Evaluations

Hort. Series # 223

Principle Investigators

Jonathan R. Schultheis
Professor and Extension Specialist,
Vegetables
Department of Horticultural Science
N.C. State University
Raleigh, NC 27695-7609

Keith D. Starke
Agricultural Research Associate,
Vegetables
Department of Horticultural Science
N.C. State University
Raleigh, NC 27695-7609

General Cultural Practices

The squash study was established on black plastic mulch. Pesticides used on all plots were chemicals labelled for that crop, 2017 North Carolina Agricultural Chemicals Manual, (http://ipm.ncsu.edu/agchem.html).

Acknowledgements

We gratefully acknowledge the assistance of Cathy Herring, (Superintendent), and Brandon Poole, (Horticulture Supervisor, Central Crops Research Station, Clayton, NC), as well as, the personnel at the research station for their help in establishing, maintaining, and harvesting the squash cultigen evaluation study. We want to acknowledge the following summer employees for their assistance with the study: Stephen Bajorek, Shannon Dexter, Elizabeth Indermaur, Katherine Phillips, as well as, graduate students; Fernando Montero De Espinosa and Marlee Trandel. We would also like to thank Joy Smith for conducting the statistical analysis on the data that was collected in this study. The cooperation and support of Abbot & Cobb, Clifton, Bejo, Enza Zaden, HM Clause, Rijk Zwaan, Seminis/Monsanto, and Syngenta are also appreciated.

Disclaimer

This publication presents data from the cultigen evaluation study conducted during 2017. Information in this report is believed to be reliable but should **not** be relied upon as a sole source of information. Limited accompanying detail is included but excludes some pertinent information, which may aid interpretation.

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Introduction

In 2017, summer squash production totaled 2,400 acres in North Carolina. Summer squash remains an important crop to North Carolina producers as the state ranked 7th among those states that produced the crop nationwide in 2013. Summer squash ranks among the top 10 vegetables grown in North Carolina. Squash represents significant economic importance to North Carolina growers with a crop value of $10.1 million in 2017. North Carolina growers have maintained their competitiveness through producing squash varieties that are highly desired by the consumer. In an effort to remain competitive in the marketplace and maximize profitability growers seek to grow squash varieties that will provide them with the highest yields and greatest overall fruit quality. The zucchini market in North Carolina has typically been supplied with a medium green fruit, however, some markets have seen increased demand for cultigens that produce a darker green fruit. Summer squash plantings in North Carolina typically experience higher incidence of disease and insect pressure as they are harvested in the fall when environmental factors favor increased presence of these plant pests. In 2017 the field study was planted on 14 August and we began harvesting on 20 September. The squash were rated for marketable and nonmarketable yields, for early and late production, and for consistency of production throughout the harvest period. Quality measurements were collected and average plant stand counts were calculated to conduct the most complete evaluation of each cultigen in the field study. We again included the number of fruit produced per plant over various harvest intervals, and for the entire production season to compliment the yield data.

Materials and Methods

Seeds were sown on 14 August 2017. Hills with seed skips were replanted 9 days after planting to maximize plant stand counts in each plot. Final stand counts were taken on 20 September (approx. 5 weeks after initial planting). This study was planted into existing plastic mulch from a preceding squash study. The herbicide Gramoxone was applied to row middles at 4.5pt/acre and the herbicide Curbit was applied to spray alleys at 4pt/ac on 9 September. The insecticides Asana XL, FanFare, Perm-Up 2EC were rotated and applied as a preventative measure beginning 30 August and on the following dates: 13, 20, 27 and 4 September. The following fungicide products were used: Bravo, Presidio, Prestine, Prevacur Flex, Ranman, and Viviando; and applied on the following dates: 30 August; 13, 20, and 27 September; and 4 October. Fertilizer was applied through drip irrigation on the following dates: 9 and 30 August; 13, 20, and 27 September; and 4 October. Harvests were conducted three times per week with a total of 12 harvests for the study. The first harvest was 20 September and the final harvest (#12) was completed on 16 October.

Most fruit were harvested when the blossom was detached from the fruit, and then categorized as marketable or nonmarketable. Fruit that were small or undersized, or were misshapen, were categorized as culls (non-marketable). Graded fruit were weighed and counted for each category and plot. The study design was a randomized complete block with four replications. Other than yield, other quality measurements taken were: percent plant stand and average fruit length and

width. Overall, plant stands were excellent for zucchini squash at 97% on average and somewhat lower for yellow squash at 85%. However, the entire study was affected by severe virus pressure and therefore underperformed with regards to overall fruit yield and quality.

The highest yields of US #1 squash were obtained during the first four harvests (74%) followed by (70%) in harvests 5 through 8 and (57%) in harvests 9 through 12 (Table 3). Significant disease pressure moved into the study shortly after establishment and disease severity increased throughout the growing season. This greatly reduced marketable yields in harvests 5 through 8 and harvests 9 through 12 (Table 3).

Significant disease pressure throughout the season suppressed yields of the entire study resulting in an only 73 % marketable fruit across all entries (Table 2). Entries that performed well above the average were E28Z.00628 (95%), Everglade (95%), Ladoga (93%), SV0914 (88%) and Sanabria (85%) (Table2). The entry with the highest yielding US #1 marketable fruit was SV0474 (505 boxes per acre), the lowest was 23-580 (90 boxes per acre). The low yields were mainly due to inferior plant stand.

The percentage of US #1 marketable fruit was especially high for SV0474 (98.1%) and Everglade (96.4%) during harvests 1 through 4; E28Z.00628 (95.1%) and Everglade (91.2%) during harvests 5 through 8; and during harvests 9 through 12, E28Z.00628 (88.6%), SV0914 (79.5%) and Everglade (74.9%) (Table 3).

The number of fruit per plant for each entry during three harvest intervals are shown in Table 4. Cumulative marketable fruit weight per plant over all harvests (12) averaged 73.3% (Table 5), while cumulative marketable fruit number per plant averaged 70.4% (Table 6).

The cumulative number of fruits per acre for each cultigen across all harvest (12) and for each grade are provided in Table 7, while the number of fruits per acre for each cultigen for harvests 1 through 4 (early season), harvests 5 through 8 (mid-season) and harvests 9 through 12 (late season) are provided in Table 8, with corresponding percentages in Table 9.

Limited data outside of yields were obtained, however, percentage plant stand and average fruit length and widths were determined (Table 10). Longer fruits were generally obtained with Sanabria, Calagreen, Zucchini Elite and Ladoga.

Yellow squash cultigens in the study were affected by virus similar to the zucchini squash entries. The highest yielding yellow squash cultigens (Marketable) based on total number of boxes per acre for early-harvests (1-4) were Grandprize and Cosmos (Table 11). Grandprize and Goldprize yielded the highest number of twenty pound boxes in the mid-season harvests (5-8) (Table 11). Similar to mid-season harvests, Grandprize and Goldprize had the highest marketable yields (based on total number of 20 pound boxes per acre) in the late-season harvests (9-12) (Table 11). Grandprize and Cosmos yielded the highest cumulative number of 20 lb boxes per acre (≥150) across all harvests (Table 12). Grandprize and Cosmos had the highest percentage (> 80%) of marketable fruit in early-harvests (1-4) (Table 13). In the mid-season harvests (5-8) Grandprize and Multipik had the highest percentage (> 59%) of marketable fruit. Grandprize had the highest percentage (> 67%) of marketable fruit in the late-season harvests (9-12)) (Table 13). Grandprize and Multipik had the highest number of yields (≥ 2.0 fruit per plant) in the early-season harvests (1-4) (Table 14). Grandprize yielded the greatest number of fruit per plant in the mid-season harvests (5-8) and late-season harvests (8-12) (Table 14). Grandprize and Multipik yielded the highest percentage of fruit weight per plant (≥ 57%) across

all harvests (Table 15). Grandprize and Multipik also had the highest percentage of fruit number per plant (≥ 61%) across all harvests (Table 16). These two cultigens yielded 19,275 and 15,028 fruit per acre, respectively, across all harvests (Table 17). Cosmos and Grandprize yielded the highest number of fruit per acre (> 7,150 fruit per acre) in the early-season harvests (1-4) (Table 18). Goldprize and Grandprize both yielded more than 6,200 fruit per acre in the mid-season harvests (5-8). Grandprize yielded the highest number of fruit per acre (5,772 fruit per acre) in the late-season harvests (9-12) (Table 18). Grandprize had the highest percentage (95% and 69%, respectively) of marketable fruit in the early-season harvests (1-4) and mid-season harvests (5-8) (Table 19). In the late-season harvests (9-12) Grandprize had the highest percentage (66%) of marketable fruit (Table 19). Cosmos had the longest fruit length, on average, followed by Grandprize, Multipik and Goldprize (Table 20).

Note: Severe virus presence was observed soon after the study was established in the field. Photographs contained in this publication illustrate the adverse effects virus had on fruit yield and quality across all harvests (12).

Figure 1. Zucchini squash photographs, replicated cultivars. Clayton, NC, 2017.

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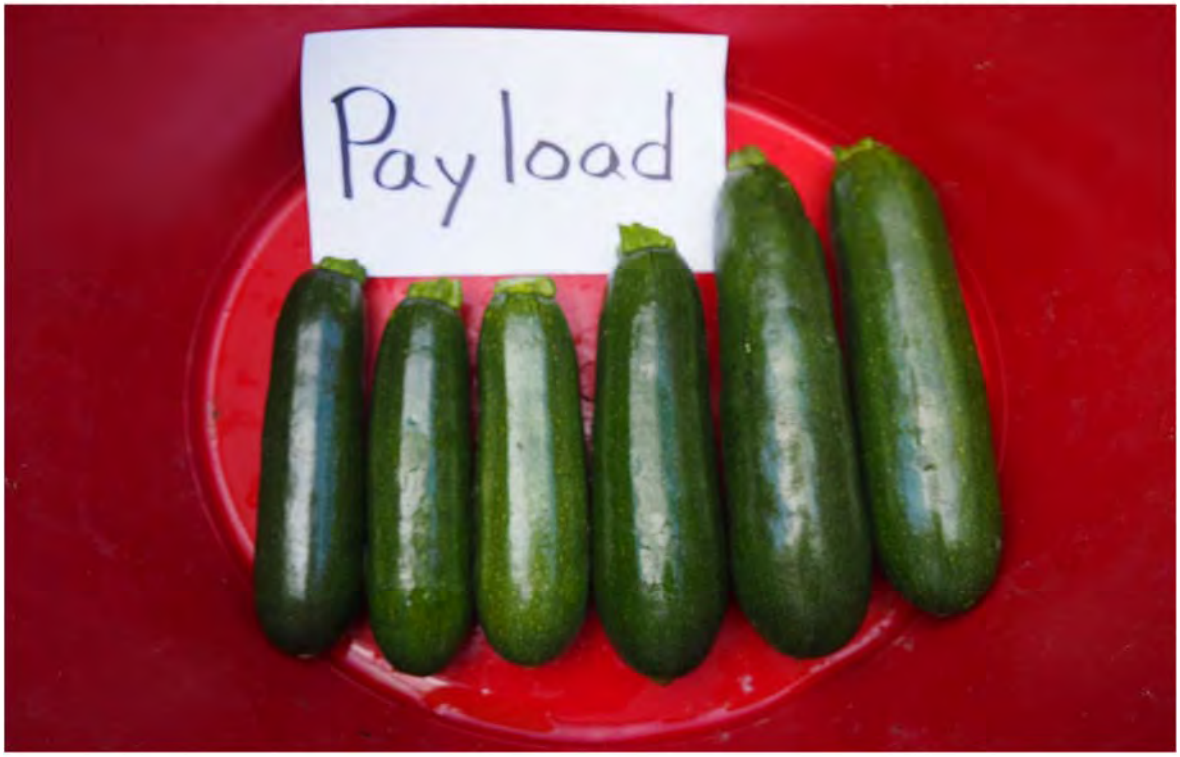

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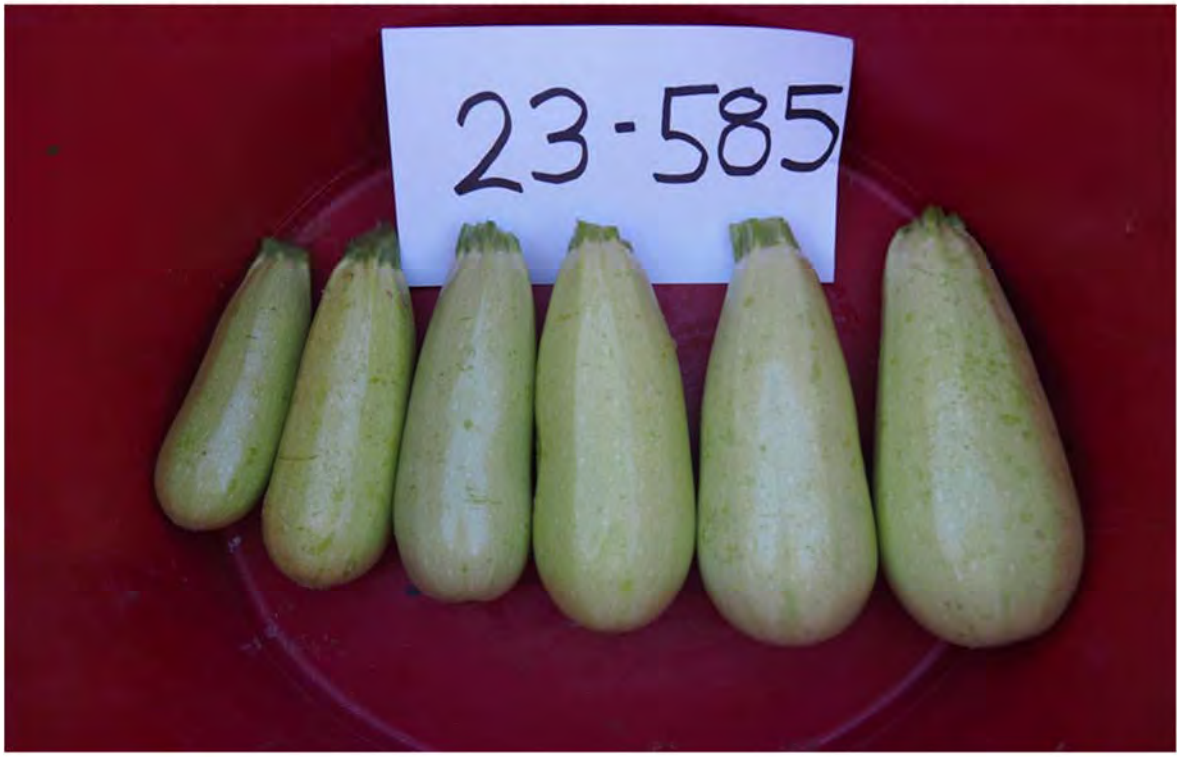

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Table 1. Zucchini Squash cultigen trial yields[1], number of 20 lb boxes per acre, per indicated harvests for replicated treatments. Clayton, NC, 2017.

		Number of 20 pound boxes per acre														
		Marketable[2]						Culls[3]			Virus[4]			Total		
		Hvsts. 1 - 4		Hvsts. 5 - 8		Hvsts. 9 - 12										
Cultivar	Company	#1	#2	#1	#2	#1	#2	(1 - 4)	(5 - 8)	(9 - 12)	(1 - 4)	(5 - 8)	(9 - 12)	(1 - 4)	(5 - 8)	(9 - 12)
Calabonita	Rijk Zwaan	130	9	37	8	72	18	9	13	15	40	33	107	188	91	212
Calagreen	Rijk Zwaan	78	13	126	3	70	4	17	5	3	11	32	42	120	166	120
Everglade	Syngenta	170	4	139	5	152	30	3	6	11	0	1	3	177	151	197
Green Machine	Enza Zaden	123	0	95	13	79	4	20	3	4	8	57	100	151	167	187
Ladoga	Bejo	139	11	113	6	100	31	2	0	10	1	9	6	154	128	146
Leopard	HM Clause	81	6	127	4	105	4	26	5	10	10	13	41	123	149	160
Payload	Syngenta	134	9	130	11	85	18	8	7	26	2	20	27	154	168	156
Sanabria	Bejo	119	8	100	11	85	31	2	8	7	4	14	31	133	132	155
Spineless	Syngenta	99	0	79	14	90	16	15	8	10	0	3	19	113	103	135
Tigress	HM Clause	73	9	111	11	125	20	14	8	0	84	67	96	180	197	241
Zucchini Elite	Clifton - HM	49	1	66	8	39	6	25	10	13	55	43	94	130	127	152
23-580	Rijk Zwaan	22	0	34	2	33	0	0	0	2	23	35	110	45	72	145
23-585	Rijk Zwaan	148	6	131	0	126	5	4	1	3	22	26	72	180	157	206
E28Z.00628	Enza Zaden	155	16	178	3	152	5	9	3	5	0	3	9	180	187	172
SV0143	Syngenta	134	16	105	15	103	16	7	11	14	3	39	44	160	171	177
SV3451	Syngenta	87	4	91	2	94	7	8	12	14	17	55	96	116	161	210
SV0474	Seminis	227	2	139	13	139	14	2	5	1	0	3	37	230	160	191
SV0914	Seminis	38	5	75	9	117	26	6	14	4	4	7	4	53	105	150
SV6009	Seminis	106	7	89	4	65	0	3	5	7	9	62	85	124	161	157
SV9043	Seminis	103	5	109	2	115	7	10	4	1	7	33	53	125	149	176
Average		111	7	104	7	97	13	9	6	8	15	28	54	142	145	172
LSD (0.05)		**63**	**15**	**56**	**12**	**56**	**19**	**15**	**11**	**10**	**28**	**41**	**44**	**71**	**66**	**67**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, 9, 11, 13 and 16 October 2017.

[2] Marketable fruit are graded into U.S. No.1 (requires younger and more tender squash than U.S. No.2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 2. Zucchini Squash cultigen trial yields, cumulative boxes, (20 lbs.), per acre, among all harvests[1]. Clayton, NC, 2017.

	Marketable[2]					Percent		
Cultivar	#1	#2	Culls[3]	Virus[4]	Total	Marketable	Cull	Virus
Calabonita	238	35	38	180	492	56	8	36
Calagreen	274	20	26	85	406	72	7	21
Everglade	462	39	21	4	525	95	4	1
Green Machine	297	17	26	164	505	63	5	32
Ladoga	352	48	12	15	428	93	3	3
Leopard	312	15	42	64	432	72	12	16
Payload	350	39	41	48	478	82	10	8
Sanabria	304	50	17	49	420	85	6	10
Spineless Supreme	268	29	33	22	352	84	10	6
Tigress	308	41	22	248	619	58	3	39
Zucchini Elite	155	15	47	192	408	43	12	45
23-580	90	2	2	168	262	34	0	66
23-585	405	11	8	119	542	75	2	23
E28Z.00628	485	25	17	12	539	95	3	2
SV0143YG	342	48	32	86	508	79	6	15
SV3451YG	272	13	33	168	486	61	8	31
SV0474YG	505	28	7	40	581	91	1	7
SV0914YG	230	40	23	15	308	88	7	5
SV6009YG	260	11	14	156	442	62	3	34
SV9043YG	328	14	15	93	450	77	3	20
Average	312	27	24	96	459	73	6	21
LSD (0.05)	**136**	**26**	**21**	**97**	**172**	**15**	**6**	**15**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 3. Zucchini Squash cultigen trial yields1. Percentage marketable, cull, and virus symptomatic fruit per indicated harvests by fruit yield for replicated treatments. Clayton, NC, 2017.

		Percentage of yield based upon grade.											
		Marketable[2]						Culls[3]			Virus[4]		
		#1			#2								
Cultivar	Company	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Calabonita	Rijk Zwaan	68	43	30	6	9	12	6	12	8	20	36	50
Calagreen	Rijk Zwaan	66	74	57	11	1	4	14	3	3	9	21	36
Everglade	Syngenta	96	91	75	2	3	15	2	5	8	0	1	2
Green Machine	Enza Zaden	82	56	43	0	10	3	14	2	2	5	33	53
Ladoga	Bejo	91	87	67	8	6	20	1	0	8	0	7	5
Leopard	HM Clause	62	82	64	4	3	2	25	4	9	10	12	25
Payload	Syngenta	83	80	54	8	8	12	8	3	17	1	9	16
Sanabria	Bejo	87	74	54	9	9	22	2	10	5	3	7	19
Spineless Supreme	Syngenta	86	76	66	0	9	11	14	10	9	0	5	14
Tigress	HM Clause	40	58	52	6	6	8	6	5	0	49	32	40
Zucchini Elite	Clifton - HM Clause	38	52	28	1	8	4	22	7	8	39	32	60
23-580	Rijk Zwaan	39	33	26	0	2	0	0	0	1	61	65	74
23-585	Rijk Zwaan	81	83	59	3	0	2	3	0	1	13	17	38
E28Z.00628	Enza Zaden	88	95	89	8	2	3	5	2	3	0	2	6
SV0143	Syngenta	86	63	60	9	10	10	4	8	8	2	19	22
SV0474	Seminis	98	88	73	1	8	7	1	3	0	0	2	20
SV0914	Seminis	62	71	80	8	8	16	11	14	3	19	6	2
SV3451	Syngenta	75	61	47	4	1	3	9	11	6	12	28	43
SV6009	Seminis	75	56	44	11	3	0	2	3	4	13	38	51
SV9043	Seminis	83	76	66	4	1	4	9	2	1	5	21	30
Average		74	70	57	5	5	8	8	5	5	13	20	30
LSD (0.05)		**22**	**23**	**21**	**11**	**9**	**11**	**13**	**11**	**8**	**18**	**24**	**19**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No.1 (requires younger and more tender squash than U.S. No.2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 4. Zucchini Squash cultigen trial yields[1], average number of fruit per plant, per indicated harvests for replicated treatments. Clayton, NC, 2017.

	Number of fruit per plant per harvest period[2]														
	Marketable[3]						Culls[4]			Virus[5]			Total		
	1 - 4		5 - 8		9 - 12										
Cultivar	#1	#2	#1	#2	#1	#2	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Calabonita	1.7	0.6	0.8	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.6	1.3	2.3	1.6	2.7
Calagreen	1.2	1.9	0.8	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.5	0.7	1.7	2.6	1.7
Everglade	2.0	2.1	1.2	0.1	0.1	0.3	0.1	0.1	0.2	0.0	0.0	0.1	2.1	2.4	1.8
Green Machine	1.8	1.4	0.9	0.0	0.2	0.1	0.3	0.1	0.1	0.1	1.0	1.4	2.2	2.6	2.5
Ladoga	1.7	1.3	1.1	0.1	0.1	0.4	0.1	0.0	0.1	0.0	0.2	0.1	1.9	1.5	1.6
Leopard	1.0	1.8	1.0	0.1	0.1	0.1	0.4	0.1	0.2	0.2	0.4	0.7	1.7	2.3	1.9
Payload	1.5	1.9	1.2	0.1	0.1	0.2	0.2	0.2	0.4	0.0	0.2	0.4	1.8	2.4	2.2
Sanabria	1.4	1.5	1.0	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.3	0.5	1.6	2.0	1.9
Spineless Supreme	1.4	1.3	1.2	0.0	0.2	0.2	0.4	0.1	0.2	0.0	0.1	0.3	1.7	1.7	1.8
Tigress	0.7	1.7	1.4	0.1	0.1	0.2	0.1	0.1	0.0	1.1	0.8	1.4	1.9	2.8	2.9
Zucchini Elite	0.6	0.9	0.6	0.0	0.1	0.1	0.5	0.1	0.1	0.7	0.6	1.3	1.8	1.7	2.1
23-580	0.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	1.2	0.7	0.8	1.6
23-585	1.3	1.6	1.4	0.1	0.0	0.1	0.1	0.0	0.1	0.4	0.4	0.7	1.8	2.0	2.2
E28Z.00628	2.3	2.6	1.9	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.2	2.7	2.8	2.3
SV0143YG	1.7	1.4	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.5	0.6	2.0	2.4	2.0
SV0474YG	2.7	1.9	1.6	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.5	2.8	2.3	2.1
SV0914YG	0.5	1.5	1.9	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.8	1.9	2.4
SV3451YG	1.4	1.3	1.0	0.1	0.0	0.1	0.1	0.2	0.2	0.3	0.5	1.3	1.9	2.0	2.6
SV6009YG	1.6	1.3	1.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	1.1	1.4	1.8	2.5	2.5
SV9043YG	1.5	1.6	1.2	0.1	0.0	0.1	0.2	0.1	0.0	0.1	0.5	0.6	1.9	2.2	2.0
Average	1.4	1.5	1.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.4	0.7	1.9	2.1	2.1
LSD (0.05)	**0.7**	**0.7**	**0.5**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.1**	**0.3**	**0.5**	**0.5**	**0.8**	**0.8**	**0.6**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Average number of fruit harvested from each plant at each harvest period (i.e.: 1-5; 6-10; 11-15).

[3] Marketable fruit are graded into U.S. No.1 (requires younger and more tender squash than U.S. No.2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[4] Culls consisted primarily of misshaped fruit.

[5] Fruit were discolored or rough/disfigured due to virus.

Table 5 . Zucchini squash cultigen trials. Cumulative fruit weight and percent per plant among all harvests[1]. Clayton, NC, 2017.

	Marketable[2]					Percent		
Cultivar	#1	#2	Culls[3]	Virus[4]	Total	Marketable	Cull	Virus
Calabonita	1.1	0.2	0.2	0.8	2.3	56	8	36
Calagreen	1.3	0.1	0.1	0.4	1.9	72	7	21
Everglade	2.2	0.2	0.1	0.0	2.5	95	4	1
Green Machine	1.4	0.1	0.1	0.8	2.4	63	5	32
Ladoga	1.6	0.2	0.1	0.1	2.0	93	3	3
Leopard	1.4	0.1	0.2	0.3	2.0	72	12	16
Payload	1.6	0.2	0.2	0.2	2.2	82	10	8
Sanabria	1.4	0.2	0.1	0.2	1.9	85	6	10
Spineless Supreme	1.2	0.1	0.2	0.1	1.6	84	11	6
Tigress	1.6	0.2	0.1	1.3	3.2	58	3	39
Zucchini Elite	0.7	0.1	0.2	0.9	1.9	43	12	45
23-580	0.4	0.0	0.0	0.8	1.2	34	1	66
23-585	1.9	0.1	0.0	0.5	2.5	75	2	24
E28Z.00628	2.2	0.1	0.1	0.1	2.5	95	3	2
SV0143	1.6	0.2	0.1	0.4	2.3	79	6	15
SV0474	2.4	0.1	0.0	0.2	2.7	91	1	8
SV0914	1.5	0.2	0.1	0.1	1.9	88	8	5
SV3451	1.3	0.1	0.2	0.8	2.3	61	8	31
SV6009	1.4	0.1	0.1	0.8	2.4	62	3	34
SV9043	1.5	0.1	0.1	0.4	2.1	77	3	20
Average	1.5	0.1	0.1	0.5	2.2	73	6	21
LSD (0.05)	**0.6**	**0.1**	**0.1**	**0.5**	**0.8**	**15**	**6**	**15**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of mishaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 6. Zucchini squash cultigen trial yields, cumulative fruit number per plant and percent per grade among all harvests[1]. Clayton, NC, 2017.

Cultivar	Marketable[2]		Culls[3]	Virus[4]	Total	Percent		
	#1	#2				Marketable	Cull	Virus
Calabonita	3.1	0.5	0.8	2.3	6.6	54	12	34
Calagreen	3.9	0.2	0.5	1.4	6.0	67	9	24
Everglade	5.3	0.4	0.4	0.2	6.3	91	6	2
Green Machine	4.1	0.2	0.4	2.5	7.3	61	6	33
Ladoga	4.0	0.6	0.2	0.3	5.0	91	3	5
Leopard	3.8	0.2	0.7	1.2	5.9	64	16	20
Payload	4.6	0.4	0.7	0.6	6.4	80	12	8
Sanabria	3.8	0.5	0.3	0.8	5.4	80	7	13
Spineless Supreme	3.9	0.4	0.7	0.3	5.2	81	14	5
Tigress	3.8	0.4	0.2	3.2	7.6	55	3	42
Zuchinni Elite	2.0	0.2	0.7	2.6	5.5	41	13	46
23-580	1.0	0.0	0.0	2.1	3.1	31	1	68
23-585	4.3	0.1	0.1	1.5	6.0	73	2	25
E28Z.00628	6.8	0.4	0.4	0.3	7.8	91	5	3
SV0143YG	4.1	0.5	0.6	1.2	6.3	74	9	17
SV0474YG	6.2	0.3	0.2	0.5	7.2	90	3	7
SV0914YG	3.9	0.5	0.3	0.3	5.0	88	6	5
SV3451YG	3.7	0.2	0.5	2.1	6.5	61	9	30
SV6009YG	3.9	0.1	0.2	2.6	6.8	59	3	38
SV9043YG	4.3	0.2	0.3	1.3	6.1	75	5	20
Average	4.0	0.3	0.4	1.4	6.1	70	7	22
LSD (0.05)	**1.5**	**0.3**	**0.3**	**1.1**	**1.7**	**15**	**8**	**13**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 7. Zucchini squash cultigen trials. Cumulative fruit number per acre and percentages, among all harvests[1]. Clayton, NC, 2017.

Cultivar	Company	Marketable[2]		Culls[3]	Virus[4]	Total	Percent		
		#1	#2				Marketable	Culls	Virus
Calabonita	Rijk Zwaan	13504	1960	3267	9801	28532	54	12	34
Calagreen	Rijk Zwaan	16226	980	2069	5990	25265	67	9	24
Everglade	Syngenta	22586	1742	1634	653	26615	91	6	2
Green Machine	Enza Zaden	17642	871	1851	10781	31145	61	6	33
Ladoga	Bejo	17424	2614	653	1198	21889	91	3	5
Leopard	HM Clause	16444	762	3158	5336	25700	64	16	20
Payload	Syngenta	20147	1851	3049	2723	27770	80	12	8
Sanabria	Bejo	16662	2069	1307	3485	23522	80	7	13
Spineless Supreme	Syngenta	16880	1634	2831	1307	22651	81	14	5
Tigress	HM Clause	13939	1416	871	12741	28967	55	3	42
Zucchini Elite	Clifton - HM Clause	8712	980	2940	11543	24176	41	13	46
23-580	Rijk Zwaan	4138	109	109	9148	13504	31	1	68
23-585	Rijk Zwaan	18622	545	545	6316	26027	73	2	25
E28Z.00628	Enza Zaden	29403	1634	1851	1198	34086	91	5	3
SV0143	Syngenta	18023	2069	2396	5118	27606	74	9	17
SV0474	Seminis	26463	1089	795	2178	30525	90	3	7
SV0914	Seminis	12524	1851	980	980	16335	88	6	5
SV3451	Syngenta	15899	762	2287	8494	27443	61	9	30
SV6009	Seminis	14048	436	762	9692	24938	59	3	38
SV9043	Seminis	18840	762	1416	5445	26463	75	5	20
Average		16906	1307	1739	5706	25658	70	7	22
LSD (0.05)		**6217**	**1122**	**1253**	**4846**	**7548**	**15**	**8**	**13**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 8. Zucchini squash cultigen trial yields[1]. Number of fruit per acre by grade per indicated harvests for replicated treatments. Clayton, NC, 2017.

Cultivar	Company	Marketable[2]						Culls[3]			Virus[4]			Total		
		#1			#2											
		1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Calabonita	Rijk Zwaan	7296	2614	3594	327	653	980	871	1089	1307	1634	2505	5663	10128	6861	11543
Calagreen	Rijk Zwaan	4901	7841	3485	545	218	218	1307	545	218	653	2178	3158	7405	10781	7079
Everglade	Syngenta	8494	9039	5053	218	327	1198	327	545	762	0	109	544	9039	10019	7558
Green Machine	Enza Zaden	7732	5990	3920	0	653	218	1307	327	218	436	4247	6098	9474	11217	10454
Ladoga	Bejo	7405	5445	4574	545	545	1525	218	0	436	109	653	436	8276	6643	6970
Leopard	HM Clause	4356	7732	4356	327	218	218	1851	545	762	871	1634	2831	7405	10128	8168
Payload	Syngenta	6643	8276	5227	436	545	871	653	653	1742	109	980	1633	7841	10454	9474
Sanabria	Bejo	5990	6316	4356	327	653	1089	218	653	436	218	1089	2178	6752	8712	8059
Spineless Supreme	Syngenta	5881	5772	5227	0	980	653	1525	545	762	0	218	1089	7405	7514	7732
Tigress	HM Clause	2723	6098	5118	436	436	545	436	436	0	4247	3267	5227	7841	10237	10890
23-580	Rijk Zwaan	1089	1307	1742	0	109	0	0	0	109	1742	2178	5227	2831	3594	7079
23-585	Rijk Zwaan	5663	7079	5881	327	0	218	218	109	218	1525	1634	3158	7732	8821	9474
E28Z.00628	Enza Zaden	9801	11326	8276	980	327	327	980	436	436	0	218	980	11761	12306	10019
Zucchini Elite	Clifton - HM Clause	2505	3703	2505	109	544	327	2069	436	436	3049	2723	5772	7732	7405	9039
SV0143	Syngenta	7187	6207	4628	653	762	653	653	980	762	109	2287	2722	8603	10237	8766
SV0474	Seminis	11543	8276	6643	109	545	436	218	545	33	0	218	1960	11870	9583	9071
SV0914	Seminis	1851	4683	5990	218	436	1198	327	436	218	327	436	218	2723	5990	7623
SV3451	Syngenta	6098	5336	4465	327	109	327	544	980	762	1089	1960	5445	8059	8385	10999
SV6009	Seminis	5772	4574	3703	218	218	0	109	327	327	545	4029	5118	6643	9148	9148
SV9043	Seminis	6643	6861	5336	218	109	436	980	327	109	545	2178	2722	8385	9474	8603
Average		5979	6224	4704	316	419	572	741	496	503	860	1737	3109	7895	8875	8887
LSD (0.05)		**3105**	**3012**	**2271**	**676**	**648**	**779**	**884**	**777**	**565**	**1402**	**2097**	**2215**	**3365**	**3459**	**2500**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 9. Zucchini squash cultigen trials[1]. Percent fruit number per acre per indicated harvests for replicated treatments. Clayton, NC, 2017.

		Marketable[2]											
		#1			#2			Culls[3]			Virus[4]		
Cultivar	Company	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Calabonita	Rijk Zwaan	71	41	29	4	9	10	10	13	12	15	36	49
Calagreen	Rijk Zwaan	66	71	49	7	2	3	17	4	3	9	23	45
Everglade	Syngenta	94	90	65	2	3	15	3	6	12	0	1	8
Green Machine	Enza Zaden	82	54	38	0	7	3	15	3	2	4	37	58
Ladoga	Bejo	90	82	66	6	9	20	3	0	7	1	9	7
Leopard	HM Clause	56	75	53	4	2	2	28	6	14	12	17	31
Payload	Syngenta	82	81	56	6	6	10	10	5	19	2	7	16
Sanabria	Bejo	87	71	55	6	8	15	4	11	6	3	10	25
Spineless Supreme	Syngenta	77	76	67	0	10	9	23	10	10	0	5	14
Tigress	HM Clause	35	61	47	8	4	5	6	4	0	51	31	48
Zucchini Elite	Clause	31	50	29	2	9	3	29	6	4	38	35	64
23-580	Rijk Zwaan	34	28	26	0	2	0	0	0	1	66	69	72
23-585	Rijk Zwaan	72	81	59	4	0	2	4	2	2	21	17	36
E28Z.00628	Enza Zaden	84	92	83	8	3	3	8	3	5	0	2	10
SV0143	Syngenta	86	62	54	7	8	8	7	11	9	1	20	30
SV0474	Seminis	97	86	74	1	6	5	2	6	0	0	2	21
SV0914	Seminis	57	79	81	9	7	14	13	9	3	21	6	3
SV3451	Syngenta	76	62	42	4	1	3	8	14	7	12	23	48
SV6009	Seminis	79	51	41	8	3	0	2	5	4	12	42	55
SV9043	Seminis	80	74	62	3	1	5	12	3	1	5	22	32
Average		72	68	54	4	5	7	10	6	6	14	21	34
LSD (0.05)		**20**	**21**	**21**	**10**	**8**	**9**	**14**	**10**	**9**	**15**	**21**	**20**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 10. Zucchini Squash cultigen trial - Percent plant stand count and average fruit length and width among replicated treatments. Clayton, NC, 2017.

Cultivar	Company	% Stand[1]	Fruit Size (cm)	
			Avg. Length	Avg. Width
Calabonita	Rijk Zwaan	100	13.6	2.8
Calagreen	Rijk Zwaan	98	17.9	4.1
Everglade	Syngenta	98	15.3	3.7
Green Machine	Enza Zaden	98	16.0	3.7
Ladoga	Bejo	100	17.6	4.5
Leopard	HM Clause	100	16.9	3.8
Payload	Syngenta	100	17.2	3.8
Sanabria	Bejo	100	18.1	4.8
Spineless Supreme	Syngenta	98	17.0	3.7
Tigress	HM Clause	75	16.3	3.8
Zucchini Elite	Clifton - HM Clause	100	17.7	4.1
23-580	Rijk Zwaan	100	16.6	4.9
23-585	Rijk Zwaan	100	13.9	4.4
E28Z.00628	Enza Zaden	100	16.9	3.7
SV0143YG	Syngenta	88	16.6	4.1
SV0474YG	Seminis	98	15.0	4.0
SV0914YG	Seminis	83	16.5	4.0
SV3451YG	Syngenta	100	17.1	4.0
SV6009YG	Seminis	100	16.8	4.5
SV9043YG	Seminis	100	15.3	3.6
Average		97	16.4	4.0
LSD (0.05)		**- -**	**2.2**	**0.8**

[1] Final plant stand count was taken on 20 September 2017.

Figure 2. Yellow squash photographs, replicated cultivars. Clayton, NC, 2017.

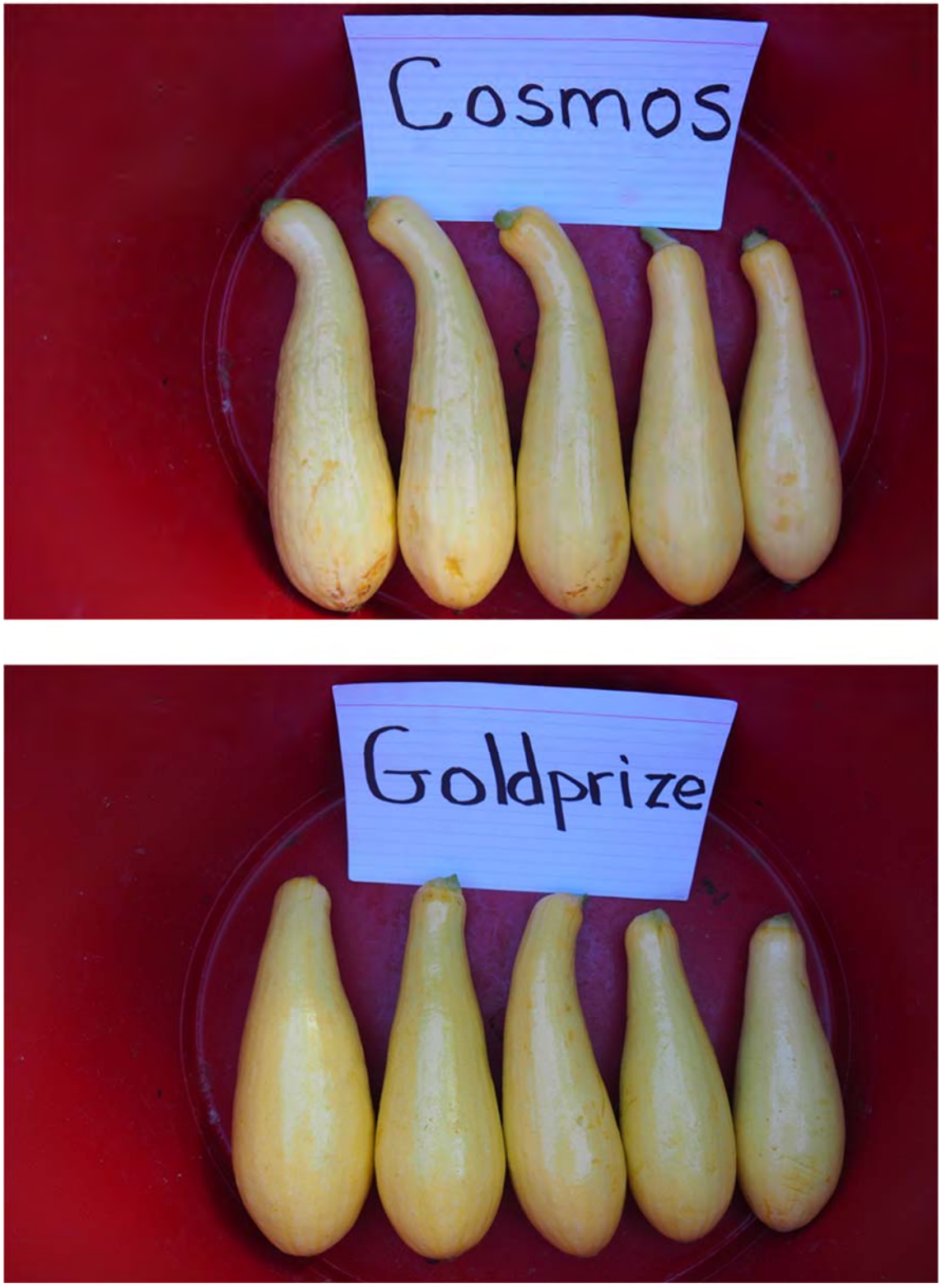

Figure 2. Yellow squash photographs, replicated cultivars. Clayton, NC, 2017.

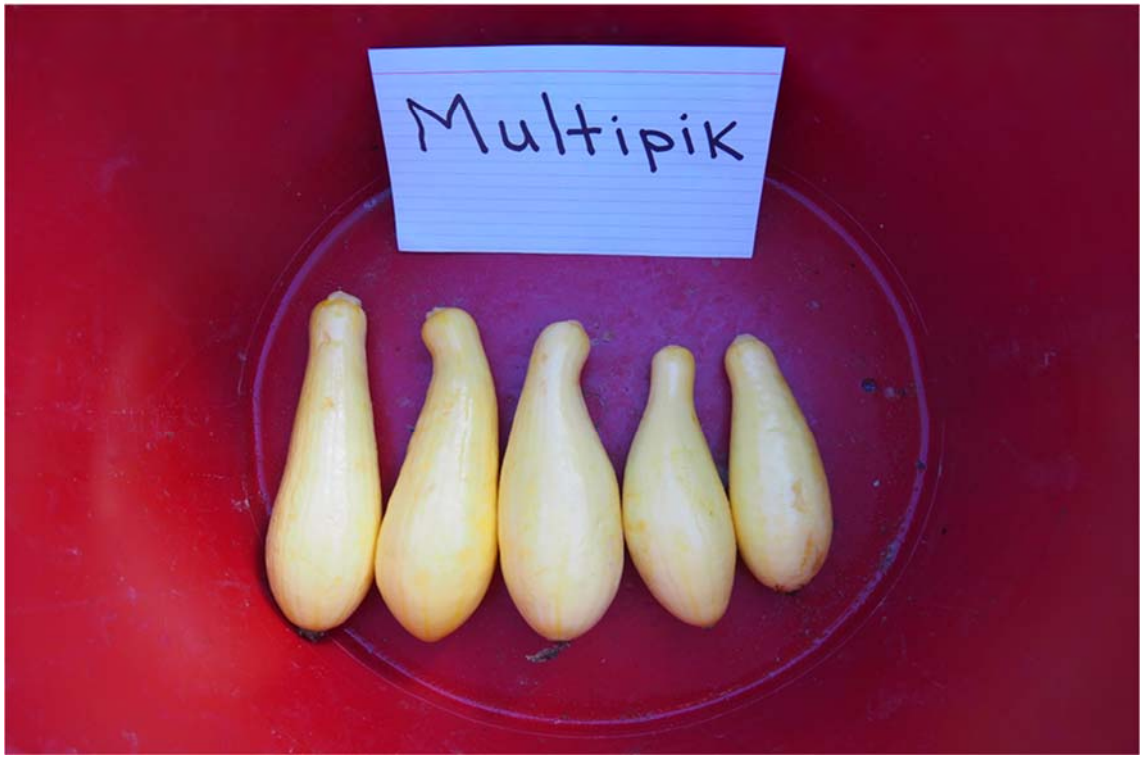

Table 11. Yellow Squash cultigen trial yields[1], number of 20 lb boxes per acre, per indicated harvests for replicated treatments. Clayton, NC, 2017.

Cultivar	Company	Marketable[2]			Culls[3]			Virus[4]			Total		
		(1 - 4)	(5 - 8)	(9 - 12)	(1 - 4)	(5 - 8)	(9 - 12)	(1 - 4)	(5 - 8)	(9 - 12)	(1 - 4)	(5 - 8)	(9 - 12)
Cosmos	Cobb	88	38	23	1	0	1	22	64	91	111	102	115
Goldprize	Clifton	30	69	35	3	1	0	35	48	48	69	118	83
Grandprize	Syngenta	96	71	81	1	2	2	7	27	36	103	100	119
Multipik	HM Clause	58	48	32	4	3	1	35	28	28	97	80	61
Average		68	57	43	2	2	1	25	42	51	95	100	95
LSD (0.05)		**23**	**40**	**25**	**6**	**3**	**4**	**28**	**25**	**30**	**32**	**38**	**25**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October 2017.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 12. Yellow Squash cultigen trial yields, cumulative boxes, (20 lbs.), per acre, among all harvests[1]. Clayton, NC, 2017.

Cultivar	Marketable[2]	Culls[3]	Virus[4]	Total	Percent		
					Marketable	Culls	Virus
Cosmos	150	2	176	328	46	0	53
Goldprize	134	3	132	270	49	1	50
Grandprize	247	4	71	322	76	1	22
Multipik	139	8	91	238	58	4	39
Average	168	4	118	290	57	2	41
LSD (0.05)	**73**	**9**	**62**	**86**	**17**	**3**	**16**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 13. Yellow Squash cultigen trial yields[1]. Percentage marketable, cull, and virus symptomatic fruit per indicated harvests by fruit yield for replicated treatments. Clayton, NC, 2017.

		Percentage of yield based upon grade.								
		Marketable[2]			Culls[3]			Virus[4]		
Cultivar	Company	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Cosmos	Cobb	81	38	20	1	0	1	18	63	79
Goldprize	Clifton	42	57	44	5	0	0	54	43	56
Grandprize	Syngenta	93	69	68	1	1	2	6	29	30
Multipik	Clause	61	60	47	5	6	1	35	35	52
Average		69	56	45	3	2	1	28	42	54
LSD (0.05)		**21**	**21**	**31**	**7**	**6**	**3**	**20**	**21**	**31**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be m greater surface area to be affected by defects).

[3] Culls consisted primarily of mishaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 14. Yellow Squash cultigen trial yields[1], average number of fruit per plant, per indicated harvests for replicated treatments. Clayton, NC, 2017.

	Marketable[3]			Culls[4]			Virus[5]			Total		
Cultivar	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Cosmos	1.8	0.9	0.4	0.0	0.0	0.0	0.4	1.4	1.9	2.3	2.3	2.3
Goldprize	0.7	1.8	0.8	0.1	0.0	0.0	1.1	1.6	1.1	1.9	3.4	1.9
Grandprize	2.3	2.0	1.8	0.1	0.1	0.1	0.1	0.7	0.7	2.5	2.8	2.6
Multipik	2.0	1.5	1.0	0.1	0.2	0.1	0.7	0.9	0.8	2.8	2.6	1.8
Average	1.7	1.6	1.0	0.1	0.1	0.0	0.6	1.1	1.1	2.4	2.8	2.2
LSD (0.05)	**1.2**	**1.2**	**0.9**	**0.2**	**0.3**	**0.1**	**0.6**	**0.9**	**0.8**	**1.0**	**0.9**	**0.4**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Average number of fruit harvested from each plant at each harvest period (i.e.: 1-5; 6-10; 11-15).

[3] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[4] Culls consisted primarily of misshaped fruit.

[5] Fruit were discolored or rough/disfigured due to virus.

Table 15 . Yellow squash cultigen trials. Cumulative fruit weight and percent per plant among all harvests[1]. Clayton, NC, 2017.

Cultivar	Marketable[2]	Culls[3]	Virus[4]	Total	Marketable	Culls	Virus
Cosmos	0.8	0.0	0.9	1.7	46	1	53
Goldprize	0.8	0.0	0.9	1.7	49	1	50
Grandprize	1.6	0.0	0.4	2.0	76	1	22
Multipik	0.8	0.1	0.5	1.4	58	4	39
Average	1.0	0.0	0.7	1.7	57	2	41
LSD (0.05)	**0.7**	**0.1**	**0.5**	**0.6**	**17**	**3**	**16**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted primarily of mishaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 16. Yellow squash cultigen trial yields, cumulative fruit number per plant, among all harvests[1]. Clayton,NC, 2017.

Cultivar	Marketable[2]	Culls[3]	Virus[4]	Total	Percent		
					Marketable	Culls	Virus
Cosmos	3.1	0.1	3.7	6.9	46.6	0.8	52.6
Goldprize	3.3	0.2	3.8	7.2	48.6	2.3	49.1
Grandprize	6.1	0.2	1.5	7.8	75.7	1.5	22.8
Multipik	4.5	0.4	2.3	7.3	61.9	5.4	32.6
Average	4.3	0.2	2.8	7.3	58.2	2.5	39.3
LSD (0.05)	**3.1**	**0.4**	**2.0**	**1.9**	**20.7**	**4.3**	**20.5**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 17. Yellow squash cultigen trials. Cumulative fruit number per acre and percentages, among all harvests[1]. Clayton, Fall, 2017.

Cultivar	Company	Marketable[2]	Culls[3]	Virus[4]	Total	Percent		
						Marketable	Culls	Virus
Cosmos	Cobb	12197	218	14375	26789	47	1	53
Goldprize	Clifton	11652	545	11086	23283	49	2	49
Grandprize	Syngenta	19275	436	5663	25374	76	2	23
Multipik	HM Clause	15028	1198	7841	24067	62	5	33
Average		14538	599	9741	24878	58	3	39
LSD (0.05)		**6864**	**996**	**6057**	**6227**	**21**	**4**	**21**

[1] Total of 12 harvests.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 18. Yellow squash cultigen trial yields[1]. Number of fruit per acre by grade per indicated harvests for replicated treatments Clayton, NC, 2017.

Cultivar	Company	Marketable[2]			Culls[3]			Virus[4]			Total		
		1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12	1 - 4	5 - 8	9 - 12
Cosmos	Abbot & Cobb	7187	3485	1525	109	0	109	1742	5336	7296	9039	8821	8930
Goldprize	Clifton	2505	6425	2723	436	109	0	3158	4661	3267	6098	11195	5990
Grandprize	Syngenta	7296	6207	5772	109	218	109	327	2505	2831	7732	8930	8712
Multipik	HM Clause	6643	5336	3049	545	545	109	2178	3158	2505	9365	9039	5663
Average		5908	5363	3267	300	218	82	1851	3915	3975	8059	9496	7324
LSD (0.05)		**2538**	**3591**	**2171**	**704**	**513**	**290**	**1769**	**2577**	**2619**	**2315**	**3481**	**2306**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

Table 19. Yellow squash cultigen trials[1]. Percent fruit number per acre per indicated harvests for replicated treatments. Clayton, NC, 2017.

		Marketable[2]			Culls[3]			Virus[4]		
Cultivar	**Company**	**1 - 4**	**5 - 8**	**9 - 12**	**1 - 4**	**5 - 8**	**9 - 12**	**1 - 4**	**5 - 8**	**9 - 12**
Cosmos	Cobb	80	40	18	1	0	1	19	60	81
Goldprize	Clifton	40	55	46	7	1	0	53	44	54
Grandprize	Syngenta	95	69	67	1	2	1	4	29	32
Multipik	HM Clause	71	59	48	5	8	2	24	34	50
Average		72	56	45	4	3	1	25	42	54
LSD (0.05)		**22**	**22**	**29**	**7**	**9**	**4**	**22**	**24**	**30**

[1] Total of 12 harvests. Planting was 14 August 2017. Harvests 1-4 occurred on 20, 22, 25, and 27 September; Harvests 5-8 occurred on 29 September, 2, 4, and 6 October; Harvests 9-12 occurred on 9, 11, 13, and 16 October.

[2] Marketable fruit are graded into U.S. No. 1 (requires younger and more tender squash than U.S. No. 2 which are permitted to be more mature and allows greater surface area to be affected by defects).

[3] Culls consisted of primarily misshaped fruit.

[4] Fruit were discolored or rough/disfigured due to virus.

* Virus incidence was low in harvests weeks (1-_) and (__); these data were not statistically different, therefore, they are only presented as observations.

Table 20. Yellow Squash cultigen trial - Percent plant stand count and average fruit length and width among replicated treatments. Clayton, NC, 2017[1].

			Fruit Size (mm) [2]	
Cultivar	**Company**	**% Stand[1]**	**Avg. Length**	**Avg. Width**
Cosmos	Abbot & Cobb	90	15.6	3.7
Goldprize	Clifton	83	13.3	4.2
Grandprize	Syngenta	83	14.5	3.8
Multipik	HM Clause	83	13.8	3.9
Average		85	14.3	3.9
LSD (0.05)		??	??	??

[1] Final plant stand count was taken on 5 September 2017.

[2] Fruit Size measurements were taken on ??