Eastern Sustainable Organic Cucurbit Project

Trial Results: 2014 & 2015

Trials were conducted on research farms at Cornell University (NY), Auburn University (AL), Clemson University (SC) and North Carolina State University (NC). Additional trials were conducted on the following commercial farms:

2014

Porter's Farm (Elba, NY)

Free Bird Farm (Palatine Bridge, NY)

Happenchance Farm (Eagle Bridge, NY)

Kirkpatrick Family Farm (Saratoga Springs, NY)

M&M Plant Farms (Elton, NC)

CCCC Land Lab (Pittsboro, NC)

Whitted Bowers Farm (Cedar Grove, NC)

Hilltop Farms (Willow Springs, NC)

Sunbright Organics (Tuskegee, AL)

2015

Porter's Farm (Elba, NY)

Free Bird Farm (Palatine Bridge, NY)

Happenchance Farm (Eagle Bridge, NY)

Windy Ridge Organic Farm (Clyde, NY)

Cottle Organics (Rose Hill, NC)

CCCC Land Lab (Pittsboro, NC)

Whitted Bowers Farm (Cedar Grove, NC)

Hilltop Farms (Willow Springs, NC)

Peaceful River Farm (Chapel Hill, NC

Mcclellan Organics (Climax, GA)

White Oak Pastures (Bluffton, GA)

City Roots (Columbia, SC)

Cucumber - 2014

Varieties

DMR-NY 264	DMR
Boston Pickler	Yield 2013 trial
Alibi	Yield 2013 trial
Diva	Popular
Marketmore 76	Popular, virus resistance
MM80BW	BW resistance
Marketmore 97ff	Yield 2013 trial
Straight 8	Popular

Results

North Carolina State University, North Carolina						
Variety	Number of Marketable Fruit Per Plant					%marketable *
Alibi	21.3	±	2.5	B		96.2%
Boston Pickler	8.0	±	1.5	C		96.2%
Diva	1.8	±	0.9	C		93.8%
DMR-NY 264	32.1	±	7.4	A		89.2%
Marketmore 76	7.2	±	2.5	C		90.1%
Marketmore 97ff	6.7	±	3.5	C		87.9%
MM80BW	6.7	±	0.9	C		93.2%
Straight 8	2.8	±	0.8	C		86.3%

Cornell University, New York									
Variety	Number of Marketable Fruit Per Plant					% Marketable			
Alibi	31.2	±	2.1	A		72.6	±	8.2	C
Boston Pickler	22.1	±	1.3	B		87.3	±	3.3	AB
Diva	15.9	±	0.3	BC		75.2	±	5.7	BC
DMR-NY 264	14.7	±	2.6	C		91.8	±	2.0	A
Marketmore 76	21.1	±	5.2	BC		85.8	±	7.7	ABC
Marketmore 97ff	20.5	±	2.1	BC		74.2	±	0.6	BC
MM80BW	16.3	±	0.8	BC		77.3	±	2.7	BC
Straight 8	15.0	±	1.3	C		82.3	±	1.7	ABC

Auburn University, Alabama 2014				
Variety	Number of Marketable Fruit Per Plant			
Alibi	14.6	±	4.5	A
Boston Pickler	4.8	±	3.8	B
Diva	5.0	±	2.5	B
DMR-NY 264	0.5	±	0.2	B
Marketmore 97ff	5.6	±	1.4	B
MM80BW	4.1	±	1.8	B
Straight 8	2.0	±	0.7	B

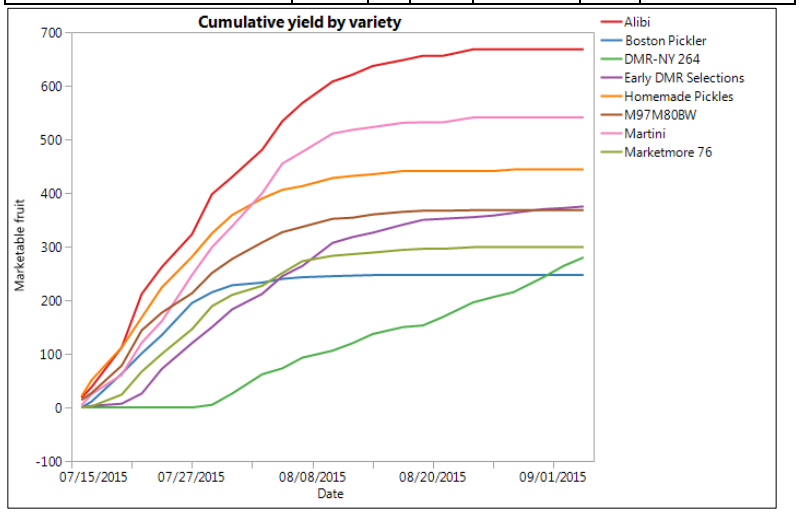
Cucumber - 2015

Varieties

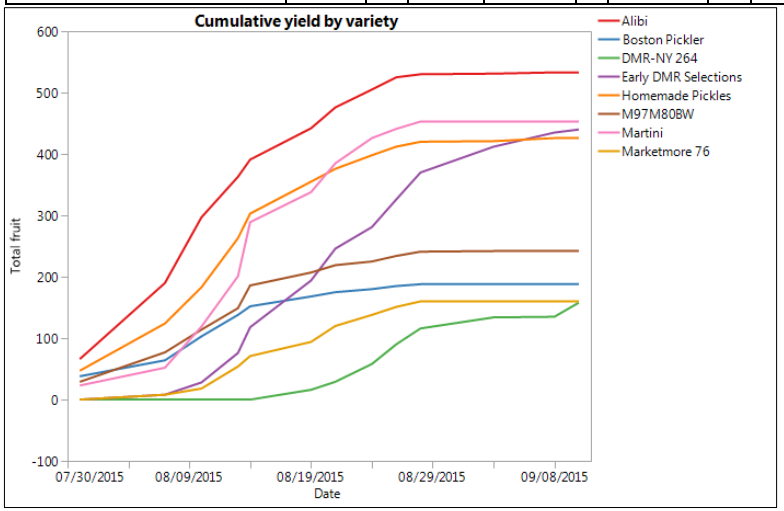
Alibi	High producing F1 pickler from 2014 trials
Boston Pickler	High producing OP pickler from 2014 trials
DMR-NY 264	DM Breeding line (late but very resistant)
Early DMR Selections	DM Breeding line (Earlier than DMR-264 with some variability)
Homemade Pickles	Recommended as an excellent pickler for the Southern US
Marketmore 76	Standard OP green slicer
Marketmore 97 FF x MM80BW F1	Higher yielding F1 green slicer with BW resistance
Martini	New hybrid white slicer with promising disease resistance

Results

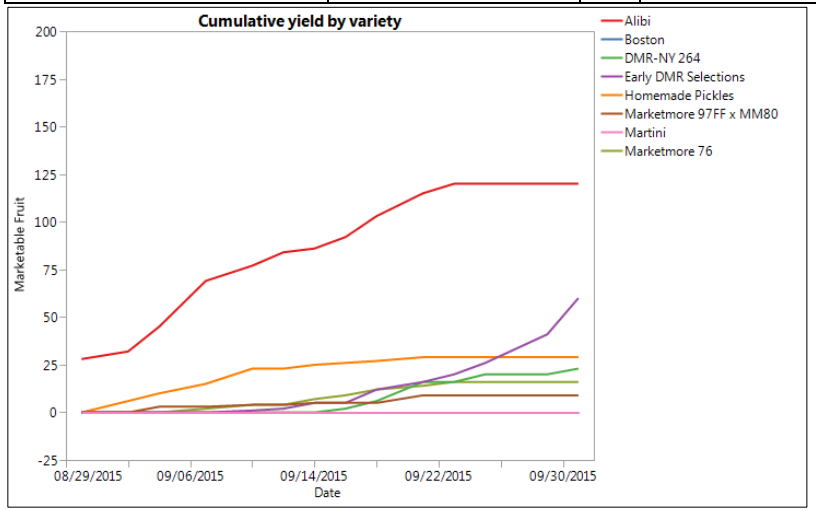
North Carolina State University, North Carolina						
Variety	Number of Marketable Fruit Per Plant					% Marketable
Alibi	19.7	±	5.1	A		82.9%
Boston Pickler	6.9	±	1.1	C		81.3%
DMR-NY 264	9.3	±	2.4	BC		91.0%
Early DMR Selections	12.1	±	3.8	ABC		84.9%
Homemade Pickles	12.4	±	1.2	ABC		86.4%
M97M80BW	10.8	±	1.6	ABC		72.6%
Martini	18.3	±	5.1	AB		87.7%
Marketmore 76	8.7	±	3.1	C		79.9%



Cornell University, New York									
Variety	Number of Marketable Fruit Per Plant					% Marketable			
Alibi	12.8	±	1.3	A		85.5%	±	4.7%	A
Boston Pickler	4.4	±	0.9	CD		82.9%	±	6.8%	A
DMR-NY 264	1.8	±	0.8	CD		35.1%	±	4.0%	C
Early DMR Selections	7.2	±	0.3	BC		54.4%	±	3.5%	B
Homemade Pickles	10.2	±	1.6	AB		85.8%	±	2.7%	A
M97M80BW	5.6	±	1.5	CD		82.4%	±	2.8%	A
Martini	9.8	±	2.3	AB		77.2%	±	6.3%	A
Marketmore 76	2.7	±	1.2	D		56.9%	±	13.4%	B



Clemson University, South Carolina				
Variety	Number of Marketable Fruit Per Plant		% Marketable Fruit	
Alibi	4.4		88.2%	
Boston Pickler	0		0.0%	
DMR-NY 264	1.2		85.2%	
Early DMR Selections	4		95.2%	
Homemade Pickles	1.5		78.4%	
Marketmore 76	0.7		76.2%	
Marketmore 97FF x MM80	0.5		64.3%	
Martini	0		0.0%	



Summer Squash – 2014

Varieties

Black Beauty	Popular
Dunja	Yield 2013 Trial, resistance
Gentry	Yield 2013 Trial, Adapted to southeast
Golden Zucchini	Included as a very susceptible squash to SCB
Multipik	Very high-yielding yellow straightneck summer squash
Romulus	
Success PM	Yield 2013 Trial, Popular
Zucchini Elite	Popular

Results

North Carolina State University, North Carolina						
Variety	Number of Marketable Fruit Per Plant					% marketable *
Black Beauty	12.2	±	2.6	D		99.3%
Dunja	13.9	±	1.0	CD		99.2%
Gentry	34.9	±	0.6	A		99.9%
Golden Zucchini	10.5	±	1.9	D		98.4%
Multipik	34.9	±	3.8	A		100.0%
Romulus	12.9	±	1.3	D		99.8%
Success PM	27.7	±	2.8	B		100.0%
Zucchini Elite	19.6	±	2.1	C		99.7%

Cornell University, New York									
Variety	Number of Marketable Fruit Per Plant					% Marketable			
Black Beauty	13.8	±	1.6	BC		92.4	±	1.9	A
Dunja	11.6	±	1.9	BC		91.0	±	1.0	AB
Gentry	20.4	±	3.1	AB		89.7	±	4.9	AB
Golden Zucchini	9.3	±	1.8	BC		84.0	±	2.9	B
Multipik	30.6	±	9.0	A		90.8	±	3.6	AB
Romulus	8.2	±	1.3	C		96.3	±	1.8	A
Success PM	14.9	±	6.1	BC		90.5	±	2.8	AB
Zucchini Elite	13.4	±	1.0	BC		89.0	±	1.5	AB

Auburn University, Alabama									
Variety	Number of Marketable Fruit Per Plant					% Marketable			
Black Beauty	1.8	±	0.4	BC		86.0%	±	7.6%	A
Dunja	3.8	±	0.4	BC		87.2%	±	7.9%	A
Gentry	15.0	±	4.3	A		90.9%	±	1.6%	A
Golden Zucchini	3.0	±	0.6	BC		77.9%	±	7.4%	A
Multipik	12.1	±	1.5	A		89.7%	±	0.8%	A
Romulus	0.0	±	0.1	C		11.1%	±	19.2%	B
Success PM	5.0	±	2.2	BC		83.6%	±	9.8%	A
Zucchini Elite	5.7	±	0.6	B		91.3%	±	4.8%	A

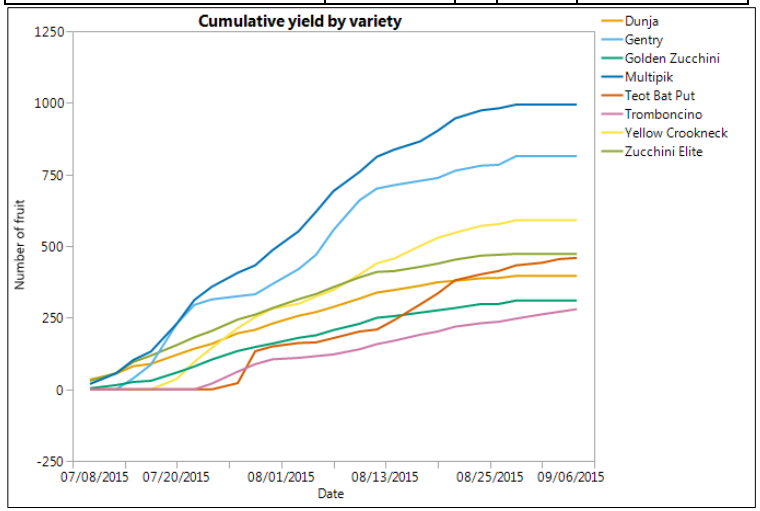
Summer Squash – 2015

Varieties

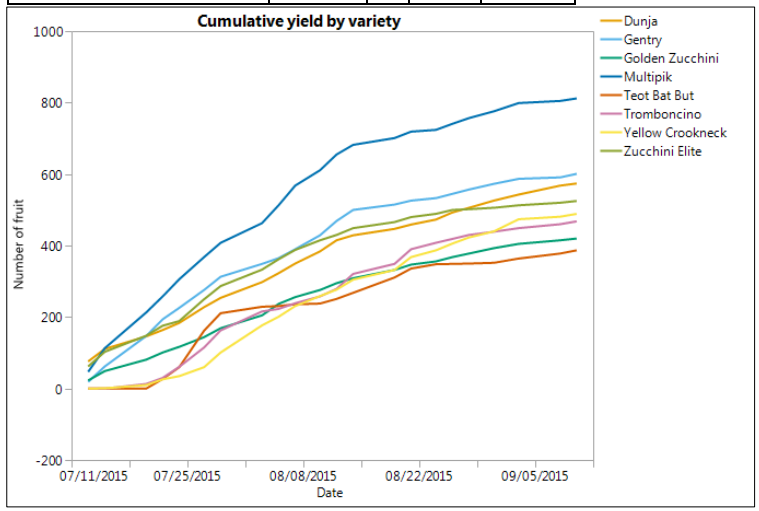
Dunja	Standard organic zucchini
Gentry	F1 crookneck to compare to Yellow Crookneck
Golden zucchini	Included as a very susceptible squash to SCB
Multipik	Very high-yielding yellow straightneck summer squash
Teot Bat But Squash	Unique avocado shaped squash with squash bug/vine borer tolerance
Tromboncino	Squash bug/vine borer tolerance - pick as a young squash
Yellow Crookneck	Standard OP crookneck- commonly grown
Zucchini Elite	Standard F1 zucchini

Results

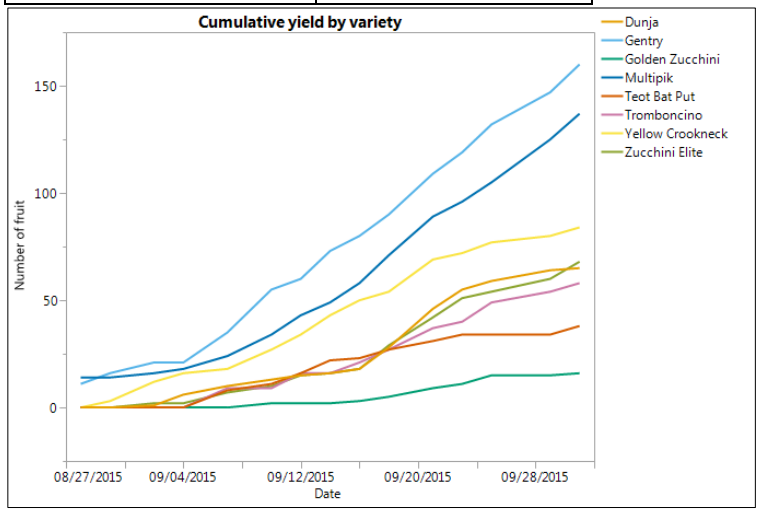
North Carolina State University, North Carolina				
Variety	Marketable Fruit Per Plant			
Dunja	11.0	±	1.0	AB
Gentry	22.6	±	8.9	AB
Golden Zucchini	8.8	±	3.1	B
Multipik	27.6	±	9.3	A
Teot Bat Put	13.4	±	8.6	AB
Tromboncino	7.8	±	1.9	B
Yellow Crookneck	16.4	±	4.8	AB
Zucchini Elite	13.2	±	3.3	AB



Cornell University, New York				
Variety	Fruit Per Plant			
Dunja	15.9	±	1.7	BC
Gentry	16.7	±	2.7	B
Golden Zucchini	11.7	±	0.4	CD
Multipik	22.6	±	1.8	A
Teot Bat Put	10.7	±	2.5	D
Tromboncino	13.0	±	0.6	BCD
Yellow Crookneck	13.6	±	1.0	BCD
Zucchini Elite	14.6	±	0.6	BCD



Clemson University, South Carolina	
Variety	Fruit Per Plant
Dunja	2.2
Gentry	6.4
Golden Zucchini	0.6
Multipik	5.7
Teot Bat But	1.3
Tromboncino	2.1
Yellow Crookneck	3.5
Zucchini Elite	2.3



Melon – 2014

Varieties

Athena	Popular F1
Earlichamp	Yield 2013 Trial
P1124112 (11-365-5)	DM resistance
PMR Delicious 51	All around good melon
Superstar	SCB non-preferred
Hannah's Choice	Multiple virus resistance
Wrangler	Beautiful - First choice substitute
Diplomat	Galia, SCB non-preferred

Results

North Carolina State University, North Carolina											
Variety	Number of Marketable Fruit Per Plant					%marketable *		Brix			
Athena	5.8	±	0.3	BC		99.0%		11.5	±	1.8	A
Diplomat	5.9	±	0.6	BC		98.1%		8.9	±	1.5	BC
Earlichamp	6.1	±	0.3	BC		99.5%		8.2	±	1.8	BC
Hannah's Choice	7.2	±	0.4	AB		99.2%		10.0	±	0.8	AB
PI124112	6.6	±	0.2	ABC		100.0%		5.1	±	0.8	D
PMR Delicious 51	6.4	±	1.0	ABC		99.6%		10.3	±	1.1	AB
Superstar	5.4	±	0.0	C		100.0%		9.7	±	1.7	B
Wrangler	7.6	±	0.8	A		99.6%		11.5	±	2.4	A

Auburn University, Alabama				
Variety	Number of Marketable Fruit Per Plant			
Athena	1.2	±	0.4	A
Diplomat	0.3	±	0.2	A
Earlichamp	0.4	±	0.5	A
Hannah's Choice	0.6	±	0.2	A
PI124112	0.8	±	0.2	A
PMR Delicious	0.7	±	0.3	A
Superstar	0.3	±	0.1	A
Wrangler	0.8	±	0.5	A

Cornell University, New York														
Variety	Number of Marketable Fruit Per Plant					% Marketable					Brix			
Athena	1.2	±	0.3	A		69.2	±	10.2	A		8.2	±	1.8	ABC
Diplomat	2.5	±	1.3	A		82.4	±	12.9	B		7.7	±	1.6	BC
Earlichamp	2.8	±	0.4	A		75.8	±	7.8	AB		8.8	±	1.9	ABC
Hannah's Choice	0.8	±	0.3	A		40.2	±	12.8	AB		10.1	±	1.4	A
PI124112	3.4	±	1.3	A		68.0	±	12.1	AB		4.7	±	1.2	D
PMR Delicious 51	2.6	±	0.7	A		76.0	±	16.7	AB		9.6	±	1.9	AB
Superstar	3.3	±	1.7	A		76.0	±	19.0	AB		7.4	±	1.4	C
Wrangler	2.0	±	0.6	A		70.7	±	6.0	AB		9.5	±	2.4	AB

Melon – 2015

Varieties

Athena	Standard F1
Hannah's Choice	Virus resistance and great flavor
Liliput	Small, slips, ideal for CSAs
PMR Delicious 51	Standard OP
Sarah's Choice	Newer JSS variety to compare to Hannah's Choice
Sivan	Small, Charantais type, CSA size
Trifecta	Newly available organic variety with DM resistance
Wrangler	Great producer and quality- the one to beat

Results

Cornell University, New York																			
Variety	Marketable Fruit Per Plant					% Marketable					Mean Weight Per Fruit (kg)					Brix			
Athena	0.8	±	0.4	BC		84.7%	±	16.8%	AB		1.3	±	0.1	A		6.9	±	1.1	B
Hannah's Choice	0.9	±	0.3	BC		76.3%	±	13.4%	AB		1.1	±	0.1	AB		7.5	±	0.4	AB
Liliput	2.0	±	0.4	A		97.6%	±	2.1%	A		0.6	±	0.1	E		10.0	±	0.8	AB
PMR Delicious 51	1.2	±	0.2	ABC		87.5%	±	12.5%	A		1.0	±	0.1	BC		8.2	±	0.6	AB
Sarah's Choice	0.6	±	0.3	C		78.3%	±	16.4%	AB		1.1	±	0.1	AB		8.1	±	2.1	AB
Sivan	0.9	±	0.4	BC		50.6%	±	15.2%	B		0.8	±	0.0	CD		8.2	±	1.9	AB
Trifecta	1.6	±	0.4	AB		87.5%	±	12.3%	A		0.7	±	0.0	DE		10.2	±	0.1	A
Wrangler	1.7	±	0.4	AB		89.4%	±	6.1%	A		1.1	±	0.1	AB		8.4	±	1.0	AB

North Carolina State University, North Carolina											
Variety	Marketable Fruit Per Plant					% Marketable		Brix			
Athena	2.3	±	0.3	C		97.6%		9.9	±	1.3	AB
Hannah's Choice	3.5	±	0.8	ABC		99.2%		10.7	±	1.2	AB
Lilliput	5.1	±	0.9	AB		100.0%		11.0	±	2.1	AB
PMR Delicious 51	3.7	±	1.3	ABC		98.4%		7.4	±	1.9	B
Sarah's Choice	3.2	±	1.0	BC		98.3%		11.5	±	0.8	AB
Sivan	6.0	±	1.5	A		99.4%		7.2	±	1.1	B
Trifecta	4.5	±	0.7	ABC		100.0%		11.4	±	0.6	A
Wrangler	4.4	±	0.8	ABC		93.8%		9.3	±	1.5	AB

* %marketable on a variety basis. Single unmarketable fruit count given for all reps

Varieties included in 2016 trials are:

Cucumber

Alibi	Pickle that always has greatest number of fruits
Dasher II	Seminis slicer, very commonly grown
DMR 401	Cornell slicer OP, true DMR, standard maturity
DMR-NY 264	Cornell slicer OP, true DMR, late maturity
Homemade Pickles	Pickle suggested by SE growers
Marketmore 76	Standard slicer OP, popular, affordable seed
Martini	Cornell-PanAm collaboration, white slicer, robust, abundant
SV4719CS	Seminis claimed DMR slicer

Summer Squash

Costata Romanesca	Many grower requests because of its good flavor
Dunja	Popular high quality zucchini with virus resistance
Gentry	Crookneck summer squash, NC field day participants requested
Meot Jaeng I Ae	Newly available *C. moschata* for immature use, straight fruit, *vine*
Multipik	Straightneck summer squash, highest yield
Tromboncino	SE seed companies recommended for insect resistance (*C. moschata* *vine*)
Zephyr	Very popular novelty straightneck summer squash
Zucchini Elite	Very commonly grown zucchini

Melon

Athena	Grower standard all-around melon
Hannah's Choice	Cornell hybrid melon with virus resistance
Lilliput	Small melon requested by CSAs
PMR Delicious 51	Cornell legacy OP, variable performance
Sarah's Choice	Good quality and yield
Seminole	Rediscovered OP with moderate DMR
Trifecta	Cornell OP, sweet, moderate DMR
Wrangler	Good quality and yield