COMPARISON OF TOMATO VARIETIES GROWN IN VICTORIA COUNTY

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SUMMARY:

Sixteen varieties of tomatoes planted on April 13, 2008 were evaluated for earliness, yield and flavor. Galilea was the highest yielding tomato producing 8.4 pounds per plant. It was also one of the latest to ripen the first set fruit and was the variety producing the highest yield late in the season. Varieties ranged in production from 1.71 – 8.4 pounds per plant.

OBJECTIVE:

To evaluate 16 common varieties of tomatoes for adaptability, yield and flavor.

MATERIALS and METHODS:

On April 13, 2008 a tomato variety demonstration was planted on a plot selected on the Upper Mission Valley Road FM 236 in Victoria County. The soil was sandy loam, enriched two years ago with mushroom compost. The soil was disked and then tilled to about 3 inches deep with fertilizer tilled in on April 12, 2008. Twenty-five pounds of 13-13-13 fertilizer was applied to the plot or the equivalent of 938 lbs/ac for a final analysis of 122-122-122 per acre.

Sixteen varieties of tomatoes were planted, two of each variety, replicated three times in a complete block design to make the picking and recording of the tomatoes reasonably easy and reducing the chance of errors. See Table 1 for variety identification and plot layout. Tomatoes were planted 3 feet apart within the row with rows 3 feet apart. Conditions were very dry and the tomatoes were mulched with grass clippings several days after planting and chipped tree limbs were added as additional mulch in May.

The plants were side dressed with 13-13-13 fertilizer in mid-May when fruit was small. Spinosad (0.5 %) was sprayed on the plants on June 19 and 29, 2008 at 2 fluid ounces per gallon of water for stink bug control.

Tomatoes were picked when ripe or almost ripe and numbers and weights recorded. Every tomato was picked and recorded regardless of insect or bird damage.

RESULTS and DISCUSSIONS:

Soil moisture was minimal at planting and remained very dry in the early season. Irrigation was accomplished by hand watering or overhead sprinkler. Due to the drought, 5 plants were lost within one week. Adequate irrigation was applied throughout the growing season.

Between stink bugs, chickens and birds more than half of the tomato's are lost. The birds mostly concentrated on the two outer rows. Since these two rows have two plants of each

variety, the varieties are equally damaged, thus no significant impact on the results. Home raised chickens were allowed to graze and did harvested tomatoes throughout the test. There were very few of them so their impact is limited and random.

The very first visible fruit on May 6, 2008 was from variety 705 Cherry. See Table 2 for a complete listing of fruit set by variety by date. Table 2 also shows when the first tomatoes were ripe and harvested and a complete listing of fruit ripening by variety by date. Also find in Table 2 the date(s) of highest production by variety. There definitely was a visible trend for some varieties to set fruit earlier (by 20 days), produce ripe fruit earlier (by 13 days) and produce the most fruit at one time during the season (by 48 days) although several varieties had an extended high production period and others did not.

Table 3 shows the pounds of production produced per plant per variety with the Galilea tomato variety producing the highest yield of 8.4 pounds per plant. Varieties ranged in production from 1.71 – 8.4 pounds per plant.

On June 24, 2008 a "taste test" or evaluation of flavor was completed on four cherry tomatoes by 26 Master Gardeners. They scored the tomatoes on a scale of 1 to 10 with 1 being the worst and 10 the best. The results are as follows:

VARIETY	SCORE
Dw Cherry Sur	7.5
Bhas 762 DE 7 Che	5.2
704	7.1
705 Cherry	7.8

Another "taste test" was conducted on July 22, 2008 by 17 Master Gardeners comparing 3 full size varieties. The results are as follows:

VARIETY	SCORE
Amelia	5.1
Galilea	5.8
Solar Fire	6.8

Two remarks need to be made here: Less people participated in the later survey because everybody just had a big lunch and the first tomato in line (Amelia) was judged unfavorably maybe because people just finished a sweet desert and did not always clear their palate.

ACKNOWLEDGMENTS:

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DISCLAIMER CLAUSE:

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

Table 1. Tomato varieties (on left) showing variety identification and three replications in plot layout on right representing six planted rows. Gerrie van Toledo, Victoria County Master Gardener - Cooperator, Victoria County, TX 2008.

A	Amelia
B	Dw cherry Sur
C	Ofri
D	Galilea
E	Bhas 762 DE 7 Che
F	Tous
G	704
H	Inbar
I	Fauna 17
J	Solar Fire
K	Sure Fire
L	Sun Pride
M	Celebrity
N	602 Round
O	444
P	705 Cherry

I		I		I	
I		I		I	
H		H		H	
H		H		H	
G	P	G	P	G	P
G	P	G	P	G	P
F	O	F	O	F	O
F	O	F	O	F	O
E	N	E	N	E	N
E	N	E	N	E	N
D	M	D	M	D	M
D	M	D	M	D	M
C	L	C	L	C	L
C	L	C	L	C	L
B	K	B	K	B	K
B	K	B	K	B	K
A	J	A	J	A	J
A	J	A	J	A	J
1	2	1	2	1	2

Table 2. Fruiting Maturity and Production Characteristics of Top Tomato Varieties, Gerrie van Toledo, Victoria County Master Gardener - Cooperator, Victoria County, TX 2008.

TOMATO VARIETY	FIRST FRUIT SET	TOMATO VARIETY	FIRST FRUIT HARVESTED	TOMATO VARIETY	HIGHEST PRODUCTION DATE
705 Cherry	May 6	705 Cherry	May 29	602 Round	Jun 11
704	May 14	704	May 31	Inbar	Jun 18
Bhas 762 DE 7 Che	May 14	Dw cherry Sur	Jun 2	Bhas 762 DE 7 Che	Jun 25
Celebrity	May 14	Bhas 762 DE 7 Che	Jun 4	Fauna 17	Jun 21, Jun 25
Sure Fire	May 14	602 Round	Jun 8	Sure Fire	Jun 25
602 Round	May 14	Amelia	Jun 8	Ofri	Jun 25, Jul 16
Fauna 17	May 14	Fauna 17	Jun 8	Dw cherry Sur	Jun 27
Dw cherry Sur	May 14	Sure Fire	Jun 8	Celebrity	Jun 27
Galilea	May 26	Tous	Jun 8	444	Jul 2
Tous	May 26	444	Jun 10	Sun Pride	Jul 2, Jul 6
444	May 26	Sun Pride	Jun 10	Tous	Jul 4
Sun Pride	May 26	Celebrity	Jun 11	Solar Fire	Jul 4
Ofri	May 26	Galilea	Jun 11	Amelia	Jul 6
Solar Fire	May 26	Inbar	Jun 11	705 Cherry	Jul 11
Amelia	May 26	Ofri	Jun 11	704	Jul 23
Inbar	May 26	Solar Fire	Jun 11	Galilea	Jul 29

Table 3. Yield of Top Tomato Varieties, Gerrie van Toledo, Victoria County Master Gardener - Cooperator, Victoria County, TX 2008.

TOMATO VARIETY	TOTAL HARVEST POUNDS	NUMBER OF PLANTS	POUNDS HARVESTED PER PLANT	INDEX
Galilea	42.00	5	8.40	200
Tous	37.25	6	6.21	148
704	30.00	5	6.00	143
Bhas 762 DE 7 Che	28.50	5	5.70	135
705 Cherry	30.75	6	5.13	122
Celebrity	30.00	6	5.00	119
444	29.50	6	4.92	117
Sun Pride	25.00	6	4.17	99
Ofri	20.75	6	3.46	82
Sure Fire	16.50	5	3.30	78
602 Round	19.25	6	3.21	76
Solar Fire	17.75	6	2.96	70
Amelia	17.50	6	2.92	69
Fauna 17	13.00	5	2.60	62
Inbar	15.00	6	2.50	59
Dw Cherry Sur	10.25	6	1.71	41
TOTALS/AVERAGE	**383.00**	**91**	**4.21**	**100**