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Diversity of size and color in fig varieties.

Having a Fit for *Figs*

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Fig preserves and hot biscuits are still a staple of many families, and research at the Chilton Area Horticulture Station may make this culinary delight more delicious and available in the future.

Figs have a long history in the Southeast. In 1903 a major effort was conducted in Georgia to evaluate fig varieties and establish a large dried fig market. From this early work it was determined that the production of fig types that were grown in California for dried production could not be grown successfully in the South.

The "Common" type, which does not require pollination and grows without true seed, was best adapted for the Southeast. While "Common" figs did not dry well under Southeast conditions, this did not prevent them from becoming one of the most popular fruits in the South.

Demand for sales of fresh figs has remained moderate to high. As a result of grower interest in the potential for small scale commercial fig production, AAES researchers took cuttings from various locations in Central and North Alabama as well as Georgia and rooted them at the Chilton Area Horticulture Station. In November of 1996, rooted cuttings were planted three trees per variety on a 12 X 20 spacing, to collect data that might highlight a variety's adaptability for commercial production as well as home use.

Thirty-seven varieties were established at the Chilton Station and data on cold hardiness, fruit load, fruit characteristics, and quality have been collected for two years. Though an impressive planting, it is small in comparison to the 120 varieties found in the 1907 collection at Experiment, Georgia.

The Chilton work has shown that many of the varieties are duplicates and the total number of different varieties appears to be half of the total number established. Many varieties have been given a coded name and number and even a few that came with a name do not match descriptions in the literature for that variety. Does this matter? To some, but not to those looking at production, quality, and potential sales. The true names perhaps will be uncovered over time.

This study was established in an unprotected location and water was supplied with a single one-gallon-per-hour emitter per tree. Fertilization was minimal and applied once each year in an attempt to reduce late season succulent growth, which would be more prone to freeze injury. Irrigation was operated one hour per day the first growing season and reduced toward late summer. Winter injury was minimal in the block in 1998 and consisted of the dieback of 8-12 inches of the tips of late season growth in a few varieties. In 1999, freeze damage ranged from light to severe (see table). No variety was lost, but this damage would be undesirable under a commercial setting due to the loss of production.

Fig Observational Block Established 1996, CAHS

Group*	Study ID	Leaf type ^a	Skin color ^b	Fruit size	Pulp color	Eye size (mm)	Hardiness rating 1999 ^c	Tree ht. (ft.)
1	GF#4	2	Grn/Brn	m	Amb/Rose	3	2	6
1	H. Hall#1	2	Grn/Pur	m-l	Amb/Pnk	5	1	6
1	H. Hall#2	2	Grn/Pur	m-l	Amb/Pnk	4	2	7
1	Owens#2	2,3	Grn/Pur	l	Amb/Pnk	4	1	7
2	OddLSU#4	3	Pur	1	Amb/Pnk	-	-	8
2	Gld Celeste	4	Pur	1	Amb/LtPnk	3	5	6
3	BF#2	4	Yel/Brnz	sm	Rose/Pnk	0	1	7
3	V. Beck	4	Yel/Brnz	sm	Rose/Pnk	0	1	6
3	Owens#1	4	Yel/Brnz	sm	Rose/Pnk	0	1	10
3	T.G#1	4	Yel/Brnz	sm	Rose/Pnk	0	1	7
3	T.G.Miss	2,4	Yel/Brnz	sm	Rose/Pnk	0	1	8
3	Br Turkey	2,4	Grn/Brzn	sm	Rose/Pnk	0	1	7
3	Finney	2,4	Yel/Brnz	sm	Rose/Pnk	0	1	10
3	MLG	2,4	Yel/Brnz	sm	Rose/Pnk	0	1	8
3	J Clarey	2,4	Yel/Brnz	sm	Rose/Pnk	0	1	7
4	G.Guffey	2,3	Grn/Brzn	l	Amb/Pnk	-	2	6
4	T.G#2	2,3	Grn/Lt.Brn	1	Amb/Pnk	3	1	5
5	LSU#5	2,3	Grn/Pur	m	Amb/Pnk	3	3	4
5	LSU#7	2,3	Grn/Pur	m	Amb/Pnk	2	3	4
6	LSU#2	2,3	Yel/Pur	m	Amb/LtPnk	1	2	9
6	LSU Purple	2,3	Yel/Pur	m	Amb/LtPnk	1	2	9
7	LSU Gold	2,4	Grn/Yel	l	Amb/LtPnk	4	2	9
7	LSU#3	3,4	Grn/Yel	l	Amb/LtPnk	4	3	8
	Marsailles	1,2	Grn/Yel	m	DrkRose	1	2	10
	GF#3	2,3	Grn/Yel	m	Crm/Amb	3	3	11
	DF#1	2,3	Pur/blk	sm	Amb/Pnk	0	1	10
	Conadra	3,2	Grn/Brzn	l	Rose/Pnk	4	1	7
	OddLSUPur	3,4	Grn/Brzn	m		-	3	8
	L.Quick	3,4	Grn/Pur	m-l	Amb/Pnk	3	2	6
	Brunswick	3,4	Pur	zl	Rose/Pnk	-	5	6
	BF#4	4,3	Pur	m-l	Amb/Rose	-	3	9
	BF#3	4,5	Red/Pur	m	Rose	3	2	11

^a Leaf types: 1-cordate, 2-lacinate, 3-spatulate, 4-lyrate, 5-lineate.

^b Abbreviations: Grn - green, Yel - yellow, Pur - purple, Brn - brown, Brnz - bronze, Blk - black, Amb - amber, Pnk - pink, Drk - dark, Lt - light.

^c Hardiness Rating: 1- no winter damage, 2- light shoot damage, 3- moderate shoot damage, 4- heavy shoot damage 5 killed to ground.

* Fig varieties with the same group numbers have closely related characteristics. Those with no group number were unique in their individual characteristics.

Production during the first growing season (1997) was minimal, but provided information on fruit size, shape, ostiole (eye) size, leaf type, and fruit quality. In 1998, production was fair to excellent and some trees had reached a size of eight feet high and eight feet wide. Tree height recorded in August of 1999 ranged from four feet to as high as 12 feet. Fruit characteristics such as skin color, pulp color, and texture along with leaf shape helped to group varieties and indicate likely duplications (see table). Open or closed eye indicated the potential for souring during unfavorable weather conditions. Large open eyes also provide attractive entryways to different dried fruit beetles that can increase internal breakdown and spread organisms responsible for souring.

Evaluations will continue and duplicate varieties will be reduced to one representative. This will give room for the introduction of other varieties to evaluate as they are obtained. Evaluations are under way for the 1999 season and fruit quality for preserving will be evaluated this season. Future information will be made available to those interested by means of the Auburn University, Department of Horticulture web page under vegetable and fruit varieties: <http://www.ag.auburn.edu/dept/hf/faculty/esimonne>.

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