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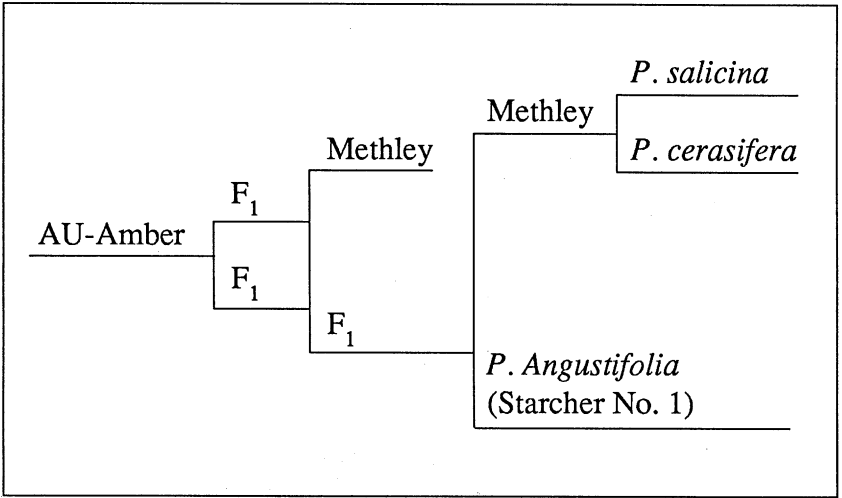
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# **AU-Amber**

**An Excellent  
Quality Plum  
for the  
Early  
Market**



Circular 299 October 1989  
Alabama Agricultural Experiment Station  
Auburn University Lowell T. Frobish, Director  
Auburn University, Alabama



**Pedigree of AU-Amber plum.**

*Information contained herein is available to all  
without regard to race, color, sex, or national origin.*

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# AU-AMBER

## An Excellent Quality Plum for the Early Market

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### INTRODUCTION

**A** NEW PLUM cultivar has been developed by the Alabama Agricultural Experiment Station for growing in areas where sufficient chilling of 650 hours of temperature below 45 °F occurs. The new cultivar—named AU-Amber—was selected from a cross of Methley and Starcher No. 1 (*Prunus angustifolia*) followed by backcrossing and sibling of selected seedlings, as shown by the pedigree. The cross was made in 1965 and the seedling was tested as Methley 12-10. It has resistance or tolerance to bacterial canker, bacterial fruit spot, and plum leaf scald, prevalent diseases of plum, table 1. Such resistance is particularly important in the Southeast where prevalence of these diseases and susceptibility of commercial varieties had discouraged plum production. The new cultivar received resistance to bacterial and fungal diseases from Starcher No. 1. Excellent fruit quality was inherited from both parents.

TABLE 1. DISEASE RESISTANCE OF PLUM VARIETIES IN EXPERIMENTAL PLANTINGS AT AUBURN AND HEADLAND, ALABAMA

Cultivar	Disease index <sup>1</sup>					
	Bacterial fruit spot	Bacterial leaf spot	Bacterial canker	Black knot	Brown rot	Plum leaf scald
AU-Amber . . . . .	0	0	0	5	2	0
AU-Producer . . . . .	0	0	0	1	2	1
AU-Roadside . . . . .	0	0	0	0	2	1
Bruce . . . . .	0	0	0	0	4	4
Crimson . . . . .	0	0	0	0	1	3
Homeside . . . . .	0	0	1 <sup>2</sup>	1	3	1
Methley . . . . .	3	5	5	5	3	4
Morris . . . . .	1	2	2	5	2	2
Ozark Premier . . . . .	0	1	1	1	3	4
Purple . . . . .	0	0	0	0	3	5
Santa Rosa . . . . .	5	5	5	0	3	5

<sup>1</sup>Disease index: 0 = 0, 1 = 1-10, 2 = 21-40, 3 = 41-60, 4 = 61-80, 5 = 81-100 percent of fruit, leaves, and trees infected. Ratings were taken in years when injury from disease was severe on susceptible cultivars.

<sup>1</sup>Professor, Research Associate, Associate Professor, and Technician of Horticulture.

## CULTIVAR CHARACTERISTICS

Trees of AU-Amber are vigorous and spreading with dark green leaves. In test orchards in Alabama and Georgia, the trees were vigorous and long lived. The plant is self-fruitful, flowers profusely, and sets a heavy crop. Maturity date is about 1 week before Methley, table 2.

TABLE 2. MEAN QUALITY EVALUATIONS<sup>1</sup> OF CANNED PLUM VARIETIES

Variety	Color	Texture	Flavor	Overall quality <sup>2</sup>
AU-Amber . . . . .	8	8	8	8.8
AU-Producer . . . . .	8	8	8	8.0
AU-Roadside . . . . .	8	8	8	8.0
Crimson . . . . .	8	8	8	8.0
Giant Cherry . . . . .	5	6	7	6.0
Methley . . . . .	8	8	8	8.0
Morris . . . . .	8	8	8	8.0
Ozark Premier . . . . .	7	7	6	6.7
Red June . . . . .	6	8	8	7.4
Sapa . . . . .	10	8	8	8.6
Starking Delicious . . . . .	8	7	5	6.7

<sup>1</sup>Numerical scores as follows: 9 or 10 = highly acceptable, 7 or 8 = acceptable, 5 or 6 = barely acceptable, below 5 = unacceptable. Mean scores of an expert panel (3-4 panelists) were obtained on the canned plums after at least 6 weeks warm-storage.

<sup>2</sup>Overall ratings are the means of all the panelists' three quality ratings.

### Disease Resistance

AU-Amber is highly resistant to bacterial canker (*Pseudomonas syringae*, Van hall), bacterial fruit spot [*Xanthomonas pruni* E. F. Smith, Dows], bacterial leaf spot (*X. pruni*), and plum leaf scald (*Xylella fastidiosa*), table 1. It is susceptible to black knot [*Apisporina morbosa* (Schw.) Ark.].

### Fruit Quality

Fruits of AU-Amber have dark red (shrimp red, HCC 34A)<sup>2</sup> skin and yellow flesh (maize yellow HCC 21B)<sup>2</sup>. Fruit quality is excellent for fresh market, which makes AU-Amber adaptable for home, roadside, and local markets. Fruits were rated acceptable in canned fruit tests, table 2. Fruit have adequate firmness for handling, packing, and shipping to commercial markets, table 1.

### Yields

The cultivar has been in trials as Methley 12-10 at two locations in the Alabama Agricultural Experiment Station System, at Byron,

<sup>2</sup>Horticulture Color Chart; Royal Horticulture Society, London.

TABLE 3. YIELD OF FRUIT OF AU-AMBER AT AUBURN, ALABAMA, AND HEADLAND, ALABAMA

Year	Fruit yield per tree		
	Auburn	Headland	Average
	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>
3.....	60	46	53
4.....	120	116	118
5.....	130	127	129
6.....	60 <sup>1</sup>	124	92

<sup>1</sup>Reduced crop from late frost injury.

Georgia, and in grower trials. It compares favorably with other cultivars in yield. Production has been highest in central and southeast Alabama, table 3. Average yields of marketable fruit per tree were 24 pounds, 118 pounds, and 129 pounds, respectively, from 3-, 4-, and 5-year-old trees.

### Storage

Fruits of AU-Amber store as well as Homeside, Purple, and Methley and better than Bruce and Ozark Premier, table 4.

TABLE 4. PERCENT MARKETABLE PLUM FRUIT AFTER STORAGE AT 35 °F

Variety	Weeks of storage				
	3	6	9	12	14
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
AU-Amber .....		70	20	0	0
AU-Producer ....	100	90	65	30	15
AU-Roadside ....	95	70	20	0	0
Bruce .....	20	5	0	0	0
Crimson.....	100	90	65	30	15
Homeside.....	95	65	15	0	0
Methley .....	95	70	20	0	0
Morris .....	100	90	65	30	15
Ozark Premier ...	90	65	15	0	0
Purple .....	100	85	55	25	8
Santa Rosa .....	100	80	45	20	5

### Outstanding Characteristics

Tree vigor and tolerance to plum leaf scald are the primary improvements of AU-Amber over Methley. Trees of AU-Amber are vigorous and show no evidence of plum leaf scald, whereas trees of Methley grow much slower and are susceptible to plum leaf scald. Tree vigor is a primary selective criterion in the Southeast, and the relationship of plum leaf scald to phony peach makes resistance important.

Two other characteristics, ripening date and skin color at maturity, may be taken collectively as another important advantage of AU-Amber. AU-Amber ripens 10 days earlier, has a shorter growing season by 10 days, and is more fully colored at any comparable stage of maturity than Methley, tables 5 and 6.

TABLE 5. FRUIT CHARACTERISTICS OF PLUM VARIETIES

Cultivar	Fruit set <sup>1</sup>	Flesh color	Skin color	Size	Shape <sup>1</sup>	Flavor <sup>1</sup>	Firmness <sup>1</sup>	Stone freeness	Texture <sup>1</sup>	Soluble solids
AU-Amber . . . . .	5	yellow	dark red	1¾-2	5	5	4	cling	5	<i>Pct.</i> 19.2
AU-Producer . . . . .	5	dark red	dark red to purple	1¾-2	5	5	5	free	5	16.5
AU-Roadside . . . . .	5	dark red	dark red	2-2¼	5	5	4	semi-cling	5	17.2
Bruce . . . . .	5	orange to red	orange to red	1¾-2	5	3	3	cling	3	9.4
Crimson . . . . .	5	crimson red	crimson red	1½-1¾	5	5	5	cling	5	16.3
Homeside . . . . .	5	cream	orange to light red	2¼-2½	5	5	4	cling	5	18.8
Methley . . . . .	5	dark red	dark red to purple	1-1¼	5	5	3	cling	5	18.5
Morris . . . . .	5	light red	light red		4	3	5	cling	5	13.4
Ozark Premier . . . . .	5	cream	red to purple	2-2¼	5	5	4	semi-cling	5	15.7
Purple . . . . .	5	cream	dark red to purple	1¾-2	5	5	5	semi-cling	4	14.8
Santa Rosa . . . . .	4	red	dark red to purple	1¼-1½	5	5	5	cling	5	16.7

<sup>1</sup>Rating index: 5 = excellent, 4 = good, 3 = fair, 2 = poor, and 1 = very poor.

TABLE 6. BLOOM AND HARVEST DATES AND YIELD OF PLUM VARIETIES

Variety	Auburn			Headland		
	Bloom date	Harvest date	Yield <sup>1</sup>	Bloom date	Harvest date	Yield
AU-Amber . . . . .	3-17	5-30	5	3-18	5-27	5
AU-Producer . . . .	3-20	6-27	5	3-21	6-24	5
AU-Roadside . . . .	3-22	7-4	5	3-22	6-29	5
Bruce <sup>2</sup> . . . . .	3-20	6-29	2	3-22	6-26	3
Crimson . . . . .	3-22	7-14	5	3-22	5-7	5
Homeside . . . . .	3-20	7-5	5	3-20	7-1	5
Methley <sup>3</sup> . . . . .	3-22	6-10	3	3-24	6-7	5
Morris . . . . .	3-22	6-17	5	3-22	6-14	5
Ozark Premier . . .	3-20	7-10	4	3-23	7-5	5
Purple . . . . .	3-24	7-20	5	3-28	7-15	5
Santa Rosa <sup>4</sup> . . . .	3-24	7-5	3	3-26	7-1	5

<sup>1</sup>Yield index: 0 = 0, 1 = very low, 2 = low, 3 = fair, 4 = good, and 5 = excellent.

<sup>2</sup>Trees short lived due to ring spot virus.

<sup>3</sup>Trees short lived due to black knot and bacterial canker.

<sup>4</sup>Trees short lived due to bacterial canker.

Another improvement of AU-Amber over Methley is increased tree longevity. In test orchards at two locations in Alabama and one in Georgia (Byron), trees of AU-Amber remained in extremely vigorous condition.

## AVAILABILITY OF TREES

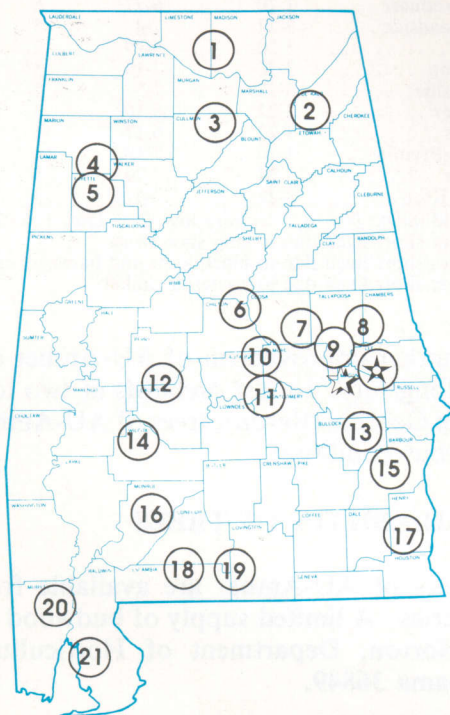
Trees of AU-Amber are available from wholesale and retail nurseries. A limited supply of budwood may be obtained from J. D. Norton, Department of Horticulture, Auburn University, Alabama 36849.

## ACKNOWLEDGMENTS

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## Alabama's Agricultural Experiment Station System AUBURN UNIVERSITY

With an agricultural research unit in every major soil area, Auburn University serves the needs of field crop, livestock, forestry, and horticultural producers in each region in Alabama. Every citizen of the State has a stake in this research program, since any advantage from new and more economical ways of producing and handling farm products directly benefits the consuming public.



### Research Unit Identification

- ★ Main Agricultural Experiment Station, Auburn.
- ★ E. V. Smith Research Center, Shorter.

1. Tennessee Valley Substation, Belle Mina.
2. Sand Mountain Substation, Crossville.
3. North Alabama Horticulture Substation, Cullman.
4. Upper Coastal Plain Substation, Winfield.
5. Forestry Unit, Fayette County.
6. Chilton Area Horticulture Substation, Clanton.
7. Forestry Unit, Coosa County.
8. Piedmont Substation, Camp Hill.
9. Plant Breeding Unit, Tallassee.
10. Forestry Unit, Autauga County.
11. Prattville Experiment Field, Prattville.
12. Black Belt Substation, Marion Junction.
13. The Turnipseed-Ikenberry Place, Union Springs.
14. Lower Coastal Plain Substation, Camden.
15. Forestry Unit, Barbour County.
16. Monroeville Experiment Field, Monroeville.
17. Wiregrass Substation, Headland.
18. Brewton Experiment Field, Brewton.
19. Solon Dixon Forestry Education Center,  
Covington and Escambia counties.
20. Ornamental Horticulture Substation, Spring Hill.
21. Gulf Coast Substation, Fairhope.