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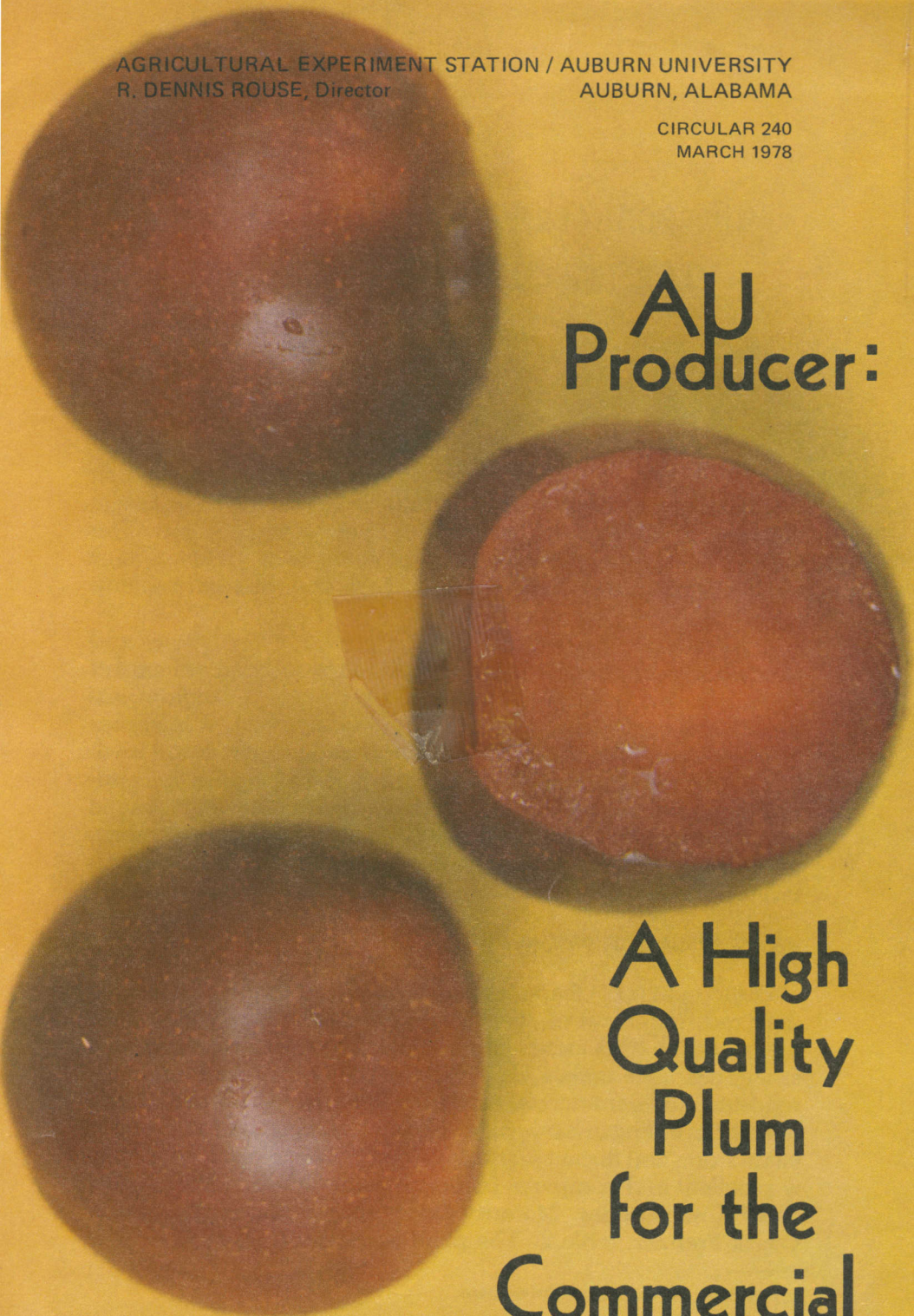

AU Producer:

A High Quality Plum for the Commercial Market

AU-PRODUCER: A HIGH QUALITY PLUM FOR THE COMMERCIAL MARKET

J. D. NORTON[1]

AU-Producer is a new plum variety that was released in 1977 by the Auburn University Agricultural Experiment Station. It was developed for growing in central Alabama, where sufficient chilling of 750 hours of temperature below 45°F occurs. This variety has proven its ability to produce high yields of high quality fruit in areas where certain fruit and disease problems occur.

AU-Producer was selected from a cross between Bruce and Santa Rosa varieties. It has high resistance to bacterial canker *(Pseudomonas syringae)*, bacterial fruit spot *(Xanthomonas pruni)*, and bacterial leaf spot *(xanthomonas pruni)*. A tolerance to black knot, *Dibotryon morbosum*, is also present in the seedling. Such resistance is particularly important because susceptibility of commercial varieties to these diseases has discouraged plum production. The new variety received resistance to bacterial and fungal diseases from the Bruce variety. Trees of AU-Producer are vigorous and upright, with dark green foliage.

VARIETY DESCRIPTION

FRUIT QUALITY. Characterized by dark red to purple skin and dark red flesh, fruit of AU-Producer are medium sized, usually measuring 1¼ to 1¾ inches in diameter. The excellence of quality and appearance makes AU-Producer fruit well suited for home, roadside, and commercial markets. The fruit has excellent firmness for handling in harvesting, storage, packing, and shipping to chain stores and distant markets, table 1. Skin color development is excellent and compares favorably with Crimson, Purple, and Santa Rosa varieties. Maturity date is approximately the same as Ozark Premier, table 2. The plant is self-fruitful.

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[1]Professor, Department of Horticulture.

TABLE 1. FRUIT CHARACTERISTICS OF PLUM VARIETIES

Variety	Fruit set	Flesh color	Skin color	Fruit diameter, inches	Shape	Flavor	Firmness	Stone freeness	Texture	Soluble solids, percent
Bruce	5[1]	orange to red	orange to red	1¾-2	5[1]	3[1]	3[1]	cling	3[1]	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
Ozark Premier	5	cream	red to purple	2-2¼	5	5	4	free	5	15.7
AU-Producer	5	dark red	dark red to purple	1¼-1¾	5	5	5	cling	5	16.5
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

[1]Rating index: 5 = excellent, 4 = good, 3 = fair, 2 = poor, and 1 = very poor.

TABLE 2. BLOOM AND HARVEST DATES AND YIELD OF PLUM VARIETIES AT THREE LOCATIONS IN ALABAMA

Variety	Auburn			Camp Hill			Clanton		
	Bloom date	Harvest date	Yield[1]	Bloom date	Harvest date	Yield	Bloom date	Harvest date	Yield
Bruce[2]	3-20	6-29	2	3-17	7-5	3	3-17	7-3	3
Crimson	3-22	7-14	5	3-20	7-20	5	3-19	7-18	5
Homeside	3-20	7-5	5	3-18	7-12	4	3-10	7-10	5
Methley[3]	3-22	6-10	3	3-20	6-16	3	3-20	6-14	3
Ozark Premier	3-20	7-10	4	3-18	7-18	4	3-18	7-15	4
AU-Producer	3-20	6-27	5	3-18	7-2	5	3-17	7-1	5
Purple	3-24	7-20	5	3-22	7-23	5	3-23	7-22	5
Santa Rosa[4]	3-24	7-5	3	3-21	7-9	3	3-22	7-8	3

[1]Yield index: 0 = 0, 1 = very low, 2 = low, 3 = fair, 4 = good, and 5 = excellent.
[2]Trees short lived due to ring spot virus.
[3]Trees short lived due to black knot and bacterial canker.
[4]Trees short lived due to bacterial canker.

YIELD. The variety has been in trials as Bruce 13-18 at three locations in the Auburn University Agricultural Experiment Station System. Production has been high at all locations in central Alabama, tables 2 and 5. It has been a consistent bearer and produced larger crops than Bruce, Methley, Ozark Premier, and Santa Rosa.

STORAGE. Fruit of AU-Producer plum stores as well as Crimson, Purple, and Santa Rosa varieties and better than Bruce, Methley, Homeside, and Ozark Premier varieties, table 3.

DISEASE RESISTANCE. AU-Producer compares favorably with varieties currently being grown in home, roadside, and commercial plantings. It is highly resistant to bacterial fruit spot, bacterial leaf spot, and bacterial canker. However, it is less resis-

TABLE 3. PERCENT MARKETABLE PLUM FRUIT AFTER STORAGE AT 35° F[1]

Variety	Percent marketable after specified weeks of storage				
	3	6	9	12	14
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Bruce	20	5	0	0	0
Crimson	100	90	65	30	15
Methley	95	70	20	0	0
Homeside	90	65	15	0	0
Ozark Premier	90	65	15	0	0
AU-Producer	100	90	65	30	15
Purple	100	85	55	25	8
Santa Rosa	100	80	45	20	5

[1]Fruit samples consisted of 100 mature, firm, fully colored fruit.

tant to black knot, caused by the fungal organism, *Dibotryon morbosum*, than Bruce, Crimson, and Purple, table 4.

AVAILABILITY OF TREES

Trees of AU-Producer should be available for planting in the winter of 1978-79.

A limited amount of budwood may be secured from J. D. Norton, Department of Horticulture, Auburn University, Auburn, Alabama, or from C. C. Carlton, Superintendent, Chilton Area Horticulture Substation, Clanton, Alabama.

TABLE 4. DISEASE RESISTANCE OF PLUM VARITIES IN EXPERIMENTAL PLANTINGS AT AUBURN, CAMP HILL, AND CLANTON

Variety	Disease index[1]					
	Bacterial spot	Bacterial leaf spot	Bacterial canker	Black knot	Brown rot	Average
Bruce	0	0	0	0	4	0.8
Crimson	0	0	0	0	1	.2
Methley	3	5	5	5	3	4.2
Homeside	0	0	1	1	3	1.0
Ozark Premier	0	1	1	1	3	1.2
AU-Producer[2]	0	0	0	1	2	.6
Purple	0	0	0	0	3	.6
Santa Rosa	5	5	5	0	3	3.6

[1]Disease index: 0 = 0, 1 = 1-20, 2 = 21-40, 3 = 41-60, 4 = 61-80, 5 = 81-100 percent of fruit, leaves and trees infected with bacterial canker, bacterial fruit spot, bacterial leaf spot, and black knot.

[2]Three trees were planted at Auburn and Camp Hill and 56 trees were planted at Clanton (six in replicated trials and 50 in a production demonstration planting).

TABLE 5. YIELD OF FRUIT OF AU-PRODUCER, CHILTON AREA HORTICULTURE SUBSTATION, THORSBY, ALABAMA, 1976 AND 1977

Tree number	Yield per tree		
	1976	1977	Average
	Lb.	*Lb.*	*Lb.*
1	105.0	117.0	111.0
2	107.0	124.5	115.8
3	109.6	120.4	115.0
4	90.4	131.8	111.1
5	131.6	112.3	122.0
6	103.0	121.0	112.0
7	60.6	138.7	99.7
8	79.4	131.6	105.5
9	115.8	119.4	117.6
10	90.6	135.8	113.2
AVERAGE	99.3	125.3	112.3

[1]Four and 5-year-old trees in 1976 and 1977, respectively.

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