

# **PUBLICATIONS**

**1980**



# **Fruit Variety Evaluations at Overton**

**Research Center**

**INFORMATION REPORT** NO. 80-1

The Texas Agricultural Experiment Station  
Neville P. Clarke, Director  
The Texas A&M University System  
College Station, Texas

## FRUIT VARIETY EVALUATIONS AT OVERTON

John A. Lipe and Stan C. Peters<sup>1/</sup>

Work was started at Overton in 1973 to evaluate new varieties of peaches, plums, blackberries, grapes and apples and to determine the feasibility of producing blueberries in East Texas. Two to five years of performance data have been gathered on these crops. Highlights of that data are presented below.

### Peaches

An open-ended planting of more than 60 peach varieties was planted at Overton in 1973. Production for the 4 years reported -- 1976/1979 -- was not adversely affected by late winter weather. Bloom occurred in February 1976 and early March 1977, but no frost damage was received. A freeze in late March 1975 destroyed what would have been a light crop.

Trees were fertilized with surface applications of 12-12-12 beginning at 0.5 lbs/tree after planting and increasing to a single spring application of 4.0 lbs/tree on mature trees. Trees were irrigated with a drip system beginning in 1974, receiving a weekly maximum of 60 gallons of water in three applications. Insects and diseases were controlled by standard commercial practices. All varieties were evaluated for yield, bloom date, harvest date, size, firmness, attractiveness, flavor and soluble solids (S.S.).

Late May -- No variety ripening in this period was clearly outstanding. Springold and Springcrest were regarded as essentially equal with Springcrest ripening an average 2 days earlier than Springold. Camden was very attractive, but lacked production and had excessive split pit.

---

<sup>1/</sup>Assistant professor and Technical Assistant II, Texas A&M University Agricultural Research and Extension Center, Overton.

Early June -- Sentinel, with production of 247 bu/ac, was easily tops in this period. Sentinel quality and firmness are not outstanding, but production is very consistent. Surecrop, ripening one week earlier than Sentinel, was promising.

Late June -- Harvester, with 268 bu/ac and an average ripe date of June 19 was one of the top varieties in the test. It combines consistent production, excellent firmness and acceptable quality to rate as a definite commercial variety. Velvet, Norman and Troy have also shown good potential. Red Globe, a commercial variety, has failed to produce well.

Early July -- Summergold, WCT-707 and Milam have all exhibited good production and quality and have excellent commercial potential. Harmony and La Premiere have also shown promise. Loring, a popular commercial variety, has not produced well.

Late July -- Fayette and Redskin have been the best varieties in this period. Fayette production and quality has been better than Redskin. Madison has had very good production, but shape and firmness have not been good enough for commercial use.

August -- Tyler and Marqueen have been the best selections in this period. Good production has been difficult to attain on any selection ripening this late because of difficulty in maintaining insect and disease protection.

### Plums

Seven plum varieties are under evaluation at Overton. Cultural systems used for them have been essentially the same as with peaches. Morris has continually proven to be the best variety in the test. Morris has produced a good crop for four successive years and was at or near the top in every quality attribute. Fruits average over 2 inches in diameter, have a dark purple peel and a sweet red flesh.

Bruce has yielded heavy crops of firm, attractive plums, but they lack quality.

Ozark Premiere, from general observation, should be second to Morris in commercial importance. Santa Rosa has been the only selection in the test that has consistently failed to fruit well.

### Apples

Approximately 20 varieties in the trial were planted in 1974, 1975 and 1976. Almost all varieties are on dwarfing rootstocks -- MM 106 and MM 111. Systems of cultural care have been essentially the same as those used for peaches. Evaluations of production and quality have been made in 1978 and 1979. Evaluations by month of ripening are as follows:

June -- Jersey Mac (rootstock MM 106) is the only selection ripening in June (late June). Production has been moderate and quality very good -- especially for cooking.

July -- Mollies Delicious (MM 106) has been the best of four varieties ripening in July although none have been rated as superior. Mollies has had large fruit, moderate production and average quality.

Early August -- Stark Laura Red (MM 106) had very good production and large, good quality fruit. Jonathon (MM 106), Jonee (MM 106) and Ozark Gold (MM 106) also had reasonable production.

Late August -- Redchief (MM 106) was easily the top variety in this period. Redchief has produced heavy crops of large, attractive delicious-type apples for three consecutive years. Starkrimson (MM 106) has had the best sweet flavor of any variety in the test, but trees are young and production has been light.

Early September -- Starkspur Golden Delicious (MM 111) was the best selection with good production and quality although it russeted badly.

Late September -- Granny Smith ripens in this period and is considered to have good potential, but trees are young and production has been very light.

### Blackberries

A variety planting of 15 selections of erect blackberries was planted at Overton in 1973. Primary emphasis has been on machine harvest. Cherokee has been judged clearly superior for this with very erect canes and good production of medium size, firm berries.

Rosborough, Cheyenne and Brazos have been the best large fruited varieties for those only interested in hand harvest. Brazos and Rosborough ripen in mid May while Cheyenne and Cherokee ripen in late May - early June.

Small plots of several trailing and semi-erect blackberries, including several thornless varieties have been maintained. Georgia Thornless has been the most productive thornless variety but quality has been poor. Flint, a semi-erect, and Tree Blackberry, an erect variety, have had good production and quality, but both are prohibitively thorny.

### Raspberries

Several varieties have been tried, but Dorman Red is the only variety that has been well enough adapted to grow and produce a significant quantity of fruit. Canes of Dorman Red are trailing and fruit are medium size with satisfactory quality.

### Blueberries

A rabbiteye blueberry trial with eight varieties was planted in 1973. The plants are under trickle irrigation and they have been periodically mulched with hay, pinebark and sawdust.

It has been shown that rabbiteye blueberries will grow and produce well in East Texas, but cultural practices must be more thorough than with other crops. Care must be taken to insure that the soil at the planting site is not compacted. Peat moss added to the planting hole is very beneficial to the young plant and irrigation -- preferably trickle -- should be considered a must.

Tifblue, Delite, Briteblue and Woodard have been the top varieties with 1979 production of 10,000 to almost 13,000 lbs/acre. Woodard has ripened slightly ahead of the others beginning in early to mid June and continuing until almost mid July. Other varieties have all begun ripening within one week of Woodard.

#### Muscadine Grapes

A planting of over 30 varieties was started in 1974 and most have had good production for at least 3 years. All selections have been judged on the basis of production, fruit weight, soluble solids (sugars), pH, titratable acidity, firmness, attractiveness, stem scar, peel slip, melting pulp, flavor, disease, percent pulp, percent peel and seed per berry.

Production, using a single wire training system, has ranged to near 10,000 lbs/acre on the top selections. Top rated bronze selections have been Higgins, Summit, Sterling and Carlos. Regale, Noble and Cowart have been the overall best purple varieties. Young vines of Watergate and Redgate (both bronze) have shown promise.

#### Bunch Grapes

A planting with over 20 selections of bunch grapes was started in 1975. Most vines have had heavy production for at least 2 years. Selections were rated on the basis of many of the same characters as indicated for muscadine grapes. Vines have been trained by a Kniffin system on a 2-wire trellis.

Production totals as high as 18,000 lbs/ac have been reached.

Top rated selections have been Carman and Blue Lake plus several numbered selections. These varieties both have small, purple berries and are best suited for jams and jellies. Dessert-type grapes have also performed well -- especially Seibel 9110. Himrod, the only seedless grape in the trial, has produced a reasonable crop of good quality berries, but black rot has been difficult to control. Two selections of Vinifera grapes were included to test for Pierce's disease and black rot has been almost impossible to control on these.

Muscadine grapes

Bunch grapes



Season of ripening of top rated fruits in Texas Agricultural Experiment Station variety trials at the Texas A&M University Agricultural Research and Extension Center at Overton, 1975-1979.

Date of Harvest	Varieties					
	Peaches	Plums	Apples	Blackberries	Blueberries	Grapes
May 1						
15	Springcrest Springold			Brazos Rosborough		
June 1	Surecrop Sentinel			Cherokee Cheyenne		
15	Harvester Velvet Norman Troy Summergold WCT 707 Milam	Morris Ozark Premiere	Jersey Mac	Dorman Red Raspberry	Woodard Briteblue Tifblue Delite	
July 1	Redskin Fayette		Mollies Delicious			Seibel 9110 Carman
15	Tyler Marqueen		Stark Laura Red Red Chief			Blue Lake Summit Regale Carlos Noble Cowart Higgins Sterling
August 1			Starkspur Golden Delicious			
15						
September 1						
15						