

SERA-14 Mississippi State Report, 2007

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Crosses made in the muscadine grape breeding focused on development of germplasm for fresh market fruit, and on enhancement of nutraceutical properties of fresh and juice types. Although equipment malfunctions, hurricanes and tropical storms, etc., have impeded progress, over the last few years, studies to evaluate the storage quality of fresh market muscadine grapes should be completed in 2007, providing observations over a two year period. Additional evaluations of nutraceutical properties of muscadines are also in progress.

The Agricultural Research Service, United States Department of Agriculture and the University of Florida College of Agriculture and the Florida Agricultural Experiment Stations announce the naming and release to nurserymen for propagation of the muscadine grape 'Eudora'.

Eudora, tested as CD8-67, was selected at Leesburg Florida in 1981 by J.A. Mortensen from a cross between 'Fry' and 'Southland'. Plants of Eudora are vigorous and productive, and in South Mississippi yields are comparable to the most productive cultivars. Flowers are pistillate and produce medium – large, round, firm, purple-skinned berries having high sugar content, excellent eating quality and flavor. Skins are edible and flavorful and pulp is crisp. Berries contain an average of 3.2 seeds per berry. Testing indicates that skins of 'Eudora' possess high concentrations of ellagic acid, a potent antioxidant, greater than that found in many other muscadine grape cultivars. Less than half of ripe berries have wet picking scars and berries store well under refrigeration with little shrinkage or shriveling. Ripening occurs from late August through late September in the Gulf-Coast Region. Berries within clusters ripen uniformly and some berry clusters are tight and suitable for cluster harvesting and packaging. 'Eudora' has not shown symptoms of Pierce's disease, and has shown good resistance to various fruit rot organisms. 'Eudora' is recommended as a fresh market grape for both dooryard and commercial use. Since flowers of "Eudora" are pistillate, it must be interplanted with other perfect flowered or self-fertile muscadine grape cultivars to facilitate pollination and fruit set. 'Eudora' is readily propagated from softwood cuttings under mist during June – July, and may also be propagated via layerage. A limited supply of one-year old potted plants or stem cuttings are available for distribution to bonafide nurserymen, and will be prorated to nurseries if demand exceeds supply. Written requests for plants should be sent to Dr. Stephen Stringer, USDA-ARS Thad Cochran Southern Horticulture Laboratory, P.O. Box 287, Poplarville, MS. 39470. Genetic materials of this release will be deposited in the National Plant Germplasm

Repository at Davis, CA., where it will be available for research purposes and commercial development.