U.S. Department of Agriculture **Work Unit Description AD-416** **U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions**				Date (Month/Day/Year) 05/29/2012
1. Accession No.	Agency Identifiers		5. Work Unit/Project No.	6. Status
	2. NIFA	3. LA.B	LAB94144	A = New Project
7. Title **Evaluation and Performance of Ornamental Plants for Landscape Use in Louisiana**				
8. Performing Organization 1366 - 2010 Hammond Research Station Agricultural Experiment Sta, Louisiana State Univ			9. Cooperating Departments within State Performing Institution a. Plant Pathology & Crop Physiol b. Burden Research Center	
10. Multistate Project No.			11. Cooperating States TX Texas, MS Mississippi	
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14. Project Type Hatch	15. Contract/Grant/Agreement No.	16. Amount	17. FY	
18. Award Date (Month/Day/Year)	19. Start Date (Month/Day/Year) 06/01/2012	20. Termination Date (Month/Day/Year) 05/31/2016		

Goals/Objectives/Expected Outputs

Objetives are: (1) Evaluation of roses for landscape performance under south Louisiana landscape growing conditions as determined by growth, flowering, vigor and disease (blackspot) susceptibility. (2) Evaluation of new and previously introduced warm season and cool season annual bedding plant cultivars and species, along with herbaceous perennials in landscape settings for adaptability to south Louisiana growing conditions. Goals include to be able to provide regionally the following (1) identification of new Louisiana Super Plants, (2) determination of the best landscape performing and minimal black spot susceptible cultivars in minifloras, Biltmore, Korder, hybrid tea, heirloom hybrid tea and Drift roses, (3) recommendation improvements for new and traditional cool season and warm season bedding plant cultivars, (4) provide improvements in information on alternative warm season and cool season bedding plant cultivars and genera for landscape use.

Methods

Through a cooperative effort with Texas A&M University, the performance of `Earth Kind' roses has been evaluated in the Baton Rouge area. An Easy Care rose garden containing the Earth Kind and other cultivars will be planted at the Hammond Research Station. Blackspot observations along with visual quality ratings will be conducted 2012-2016. Plants (1-gallon container-grown) will be laid out in unrandomized planting with five single plant replications of five plants per cultivar. Miniflora roses are a new group of roses being grown over the past five years. Cultivars to be included in Hammond Research Station landscape trials are Abby's Angel, Deju Blu, Show Stopper, Dr. Troy Garret, Foolish Pleasure, Memphis Blues, Whirlaway, Shameless, Focal Point, and Rocky Top. Blackspot observations along with visual quality ratings will be conducted over the next five years. Easy Elegance roses are another new group of 23 landscape shrub roses from Bailey Nurseries. The seven best cultivars for the Gulf States as identified by Chamblee Rose Nursery are being evaluated at the Hammond Research Station in the sun garden and are being replicated and treated similar to the methods previously described. Cultivars in this study are My Girl, Sunrise Sunset, Sweet Fragrance, All the Rage, Super Hero, Centennial and Macy's Pride. Drift roses are a new group of ground cover roses advertised as low maintenance, ground cover type alternatives to the popular Knock Out series. Cultivars in the group include Pink, Red, Sweet, Apricot, Peach Coral, and (new for 2012) Popcorn. Plants will be evaluated in the care and maintenance research area at the Hammond Research Station. Sixteen cultivars of Kordes roses are scheduled to be planted at the Hammond Research Station in March 2012. These cultivars are Blue Girl, Carmella Fairy Tale, Cream Veranda, Flamingo Kolorscape, Golden Fairy Tale,Iceberg, Innocencia Vigorosa, Lemon Fizz, Lions Fairy Tale, Mandarin Ice, Milano Kolorscape, Raspberry Vigorosa, Roxy Sun Sprite, Salmon Vigorosa, Seminole Wind, and

Westerland. An heirloom hybrid tea study will be initiated to evaluate hybrid tea roses that exhibit superior resistance to fungal disease to the extent that they can be grown with a minimal fungicide program. Thirty hybrid tea rose cultivars with introduction dates of 1880-1950 will be evaluated at the Hammond Research Station. The evaluation will be planted as a The hybrid tea (Easy-Tea) rose evaluation is on-going at the American Rose Society (ARS) in Shreveport, LA and will conclude fall 2012.

23. Non-Technical Summary

In the ornamental horticulture area, there is a constant release of new plant material that leads to a need for nursery/greenhouse production studies, landscape performance evaluation trials, disease and insect susceptibility studies, and climatic adaptability observations. These new plants are especially pronounced in the herbaceous plant material (annual bedding plants, herbaceous perennials, roses, daylilies, etc) segment of the industry. Organized plant trials in a simulated consumer and/or commercial landscape setting generate useful information on the suitability of particular ornamental plants in different geographical areas and hardiness/heat zones. Regional and state plant trials have led to successful programs such as Louisiana Select, Mississippi Medallion, Texas Superstars, Florida Plants of the Year, and others. In addition, more studies are needed to determine the "real" landscape performance in regional areas of such nationally promoted plants as All-America Selections (bedding, flower, and vegetable) winners, All-America Rose Selections, All-America daylily winners, and others. A Louisiana green industry survey in 2003 identified ornamental plant evaluation as a top research priority. A recent survey of the board of directors of the Louisiana Nursery and Landscape Association also found new plant material evaluation is a high priority research area. The Louisiana Super Plant promotion, marketing and recommendation program was initiated by the LSU AgCenter in 2010. At the present time in the Southeastern and South Central United States, the largest organized plant evaluations, primarily of warm season annual trials, are conducted at the LSU AgCenter's Hammond Research Station, Dallas Arboretum, Texas A&M University's Research Center in Overton, University of Georgia - Athens, Mississippi State University Truck Crops Experiment Station (Crystal Springs), and Mississippi State University's South Mississippi Branch Experiment Station (Poplarville). In addition, there are a number of All-America Selections display and trial gardens in these states. Previous research in the area of ornamental plant performance in landscape settings has evaluated daylilies, crape myrtles, cool season annual bedding plants, warm season annual bedding plants, lantanas, ornamental grasses, ornamental sweet potatoes, roses, gingers, and other ornamentals. Currently, this effort is continuing and on-going at the Hammond Research Station in Hammond (USDA Hardiness Zone 8b and AHS Heat Zone 9) and at the Burden Center in Baton Rouge. These trials result in People's Choice Landscape Award winners and also result in listings of plants available for Louisiana Super Plant (www.lsuagcenter.com/superplants) possible selection. Problems generally seen in the landscape performance of herbaceous ornamentals includes cultivar selection, inappropriate planting times, issues with growing/planting media in landscape beds (pH and physical properties), disease pressure, weed issues, mulching, and poor irrigation monitoring.

24. Keywords

roses; landscape performance; rose diseases; black spot; blackspot; bedding plants; annual flowers

****** The Original signed document is on file at this institution. ******

Signature	Title	Date
Dept: Admin:	*Associate Director*	5/30/12