

Goal 1. An Agricultural System that is Highly Competitive in the Global Economy

Sustainable Agriculture Production System: Plants

Field and Horticultural Crops

Field Crops

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Agudelo Paula	1700320 H-S-MRF S-1015	ESPS	Host resistance as the cornerstone for managing plant-parasitic nematodes in sustainable agroecosystems 1 Jan 07/30 Sept 08 Ext to 30 Sept 09
Chapin Jay	1700293 H-S	ESPS Edisto REC	Development and implementation of profitable peanut management systems 1 July 06/30 June 11
Chapin Jay	1700386 H-S-MRF S-1038	ESPS EdistoREC	Peanut variety quality evaluation program 1 Feb 08/30 June 09
Edge Ben	1700279 H-S	ESPS	Germplasm enhancement and variety development of wheat, oats and barley adapted to SC 1 July 05/30 June 10
Fortnum Bruce	1000650 S	ESPS PeeDeeREC	Best management practices for endemic soilborne diseases of transgenic and traditional tobaccos 1 July 06/30 June 11
Frederick, James	1700261 H-S	ESPS Pee Dee REC	Impacts of new crop production technologies and practices on crop productivity and sustainability 1 July 04/30 June 09
Jones, Michael	1700255 H-S	ESPS Pee Dee	Agronomic practices and management systems for optimum cotton productivity and profitability in SC 1 July 04/30 June 09
Khalilian, Ahmad	1700369 H-S	ABE Edisto REC	Sensors, tools and methodology for site specific..... environmental sustainability (incomplete title) 1 July 08/30 June 13
Knap, Halina	1700251 H-S	ESPS Genetics	Determining molecular chromosomal region-organization in soybean for the improvement of soybean cyst nematode resistance 1 July 04/30 June 09

Knap Halina	1700397 H-S	ESPS	Ancestral soybean genome as donor for improvement of stress response to soybean cyst nematode: chromosomal and functional approaches 1 July 09/30 June 14
Marshall Michael	1700384 H-S	ESPS EdistoREC	Herbicide resistant weed management strategies in corn, soybeans, and cotton in SC 1 July 08/30 June 13
Mueller John	1700296 H-S	ESPS EdistoREC	Management of Asian soybean rust, nematode/rust interactions, and cotton nematodes 1 July 06/30 June 11
Owino Tom	1700268 H-S-MRF S-1018	ABE Edisto REC	Irrigation management for humid and sub-humid areas 1 Oct 04/30 Sept 09
Reay-Jones Francis	1700333 H-S	ESPS PeeDee REC	Ecological pest management and population dynamics of field crop insects in SC 1 Mar 07/30 June 11
Riley Melissa	1700389 H-S	ESPS	Maximizing Experiment Station technical and equipment resources through development of multi-user labs 1 Oct 08/30 June 11
Shipe, Emerson	1700003 S-9 H-S-MRF	ESPS	Plant genetic resources conservation and utilization 1 Oct 77/30 Sept 82 rev 1 Oct 82/30 Sept 87 ext to 30 Sept 88 rev 1 Oct 88/30 Sept 93 rev 1 Oct 93/30 Sept 98 rev 1 Oct 98/30 Sept 03 rev 1 Oct 03/30 Sept 13
Shipe Emerson	1700326 H-S	ESPS	Breeding high-yielding, multiple pest-resistant soybean for SC 1 July 07/30 June 12
Wiatrak Pawel	1700328 H-S	ESPS Edisto REC	Site-specific nitrogen application on corn in the coastal plain to maintain productivity and preserve environmental quality 1 Feb 07/30 June 11

Horticultural Crops (Fruit)

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Bielenberg	1700372	Hort	Functional analysis of dormancy associated MADS-box

Douglas	H-S		genes in hybrid poplar 1 Oct 08/30 June 13
Gasic Ksenija	1700382 H-S	Hort	Peach variety development for improved disease and abiotic stress resistance using traditional and molecular approaches 1 July 08/30 June 13
Keinath Tony	1700285 S-1028	ESPS Coastal REC	Ecological and genetic diversity of soilborne pathogens and indigenous microflora 1 Oct 06/30 Sept 11
Keinath Tony	1700294 H-S	ESPS Coastal REC	Management of major fungal and bacterial pathogens on cucurbits and leafy brassica greens in SC 1 July 06/30 June 11
Reighard Greg	1700332 NC-140 H-S-MRF	Horticulture	Improving economic & environmental sustainability in tree-fruit production through changes in rootstock use 1 Oct 07/30 Sept 12
Scott Simon	1700329 H-S	ESPS	Viruses & viral disease of crops of economic importance in SC, with major emphasis on peach and ornamentals 1 July 07/30 June 12
Scott Simon	1700270 H-S-MRF NRSP-5	ESPS	National program for controlling virus diseases of temperate fruit tree crops 1 Oct 03/30 Sept 08 Ext to 30 Sept 09

Horticulture Crops (Ornamentals)

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Faust James	1700272 H-S	Hort	Improving performance and longevity of floriculture crops during storage and shipping of unrooted cuttings 1 July 05/30 June 10
Jeffers Steve	1700309 H-S	ESPS	Phytophthora species associated with ornamental crops and trees in the Southeast: detection, distribution, and pathogenicity 1 July 06/30 June 11
Rajapakse, Nihal	1700370 H-S	Hort	Role of environmental factors on nutritional value of food crops 1 July 08/30 June 13

Wells Christina	1700359 H-S	Hort	Fine root dynamics: software, senescence and urban applications 1 Jan 09/30 June 13
Whitwell Ted	1700338 H-S	Hort	Remediation of pollutants from nursery runoff water 1 July 07/30 June 09

Horticultural Crops (Vegetables)

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Dufault, Robert	1700227 H-S	Hort Coastal REC	Production strategies to capture high-value niche markets for vegetables, herbs, and small fruits in South Carolina 1 July 03/30 June 08 Revised 1 July 08/30 June 10
Hassell, Richard	1700366 H-S	Hort Coastal REC	Evaluation of grafted watermelons, grafting methods, and potential benefits to SC growers and consumers 1 July 08/30 June 13
Zehnder Geoff	1700301 H-S	ESPS	Pest and fertility management strategies for sustainable and organic vegetable production 1 July 06/30 June 11

Horticultural Crops (Turf)

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Chong JH	1700351 H-S	ESPS PeeDee	Ecology and integrated management of arthropod pests of turfgrass & ornamental crops 1 Oct 07/30 June 12
Han Young J.	1700289 H-S	ABE	Sensors and control technologies for precision agriculture 1 July 06/30 June 11
Martin, Bruce	1700256 H-S	ESPS Pee Dee	Improved disease management for putting greens in the Southeastern U.S. 1 July 04/30 June 09
McCarty	1700299	Hort	Best management strategies for turfgrasses in SC

Bert H-S 1 July 06/30 June 11

Park 1700335 Hort
Dara H-S PeeDeeRec Optimizing natural resource management in SC to maintain
quality turfgrass
1 July 07/30 June 12

Genomics

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Abbott, Bert	1700363 H-S	Genetics	Flavonoid biosynthesis in peach (incomplete title) 1 July 08/30 June 13
Baird Vance	1700300 H-S	Hort	Genetics and molecular biology of stress response in plants 1 July 06/30 Aug 09
Brune David	1700391 H-S-MRF S-1041	ABE	Science and engineering for a biobased industry and economy 1 Oct 08/30 Sept 13
Cao Weigo	1700274 H-S	Genetics	Biochemistry of the repair of the deaminated DNA 1 July 05/30 June 10
Frugoli Julia	1700277 H-S	Genetics	Signal transduction pathways controlling nodulation in a model legume 1 July 05/30 June 10
Harcum Sarah	1700287 H-S	Bioengin	Effects of cell culture conditions on terminal glycosylation efficiency in Chinese hamster ovary (CHO) cells 1 July 06/30 June 11
Hilderman, Richard	1700246 H-S	Genetics	National animal genome research program 1 Oct 03/30 Sept 08 Ext to 30 June 09
Hughes, Tom	1700368 H-S	Biol Sci	Sequence and analysis of PAH-degrading genes of Sphingomonas paucimobilis 1 July 08/30 June 13
Kole Chitta	1700353 H-S	Genetics	Genome mapping and molecular breeding in medicinal plants 1 July 08/30 June 13
Liang Hiang	1700324	Genetics	Study of cinnamyl alcohol dehydragenase genes in tulip- poplar and modification of cell wall to enhance fiber extractability in poplar 1 Feb 07/30 June 11

Luo Hong	1700315 H-S	Genetics	Development of environmentally safe transgenic turfgrass with improved traits 1 July 06/30 June 11
Marcotte Bill	1700334 H-S	Genetics	Structure-function analysis of group 1 lea proteins 1 July 07/30 June 12
Moore Brandon	1700348 H-S-MRF NC-1168	Genetics	Regulation of photosynthetic processes 1 Oct 07/30 Sept 12
Morris James	1700357 H-S	Genetics	Resolving glucose sensing for the development of new treatments against human disease 1 Oct 08/30 June 13
Mount Andrew	1700288 H-S	Biol Sci	Cellular and materials-based studies of marine invertebrates to advance biomineralization, antifouling and nanotechnology 1 July 06/30 June 11
Rice, Charles	1700263 H-S	Biol Sci	Impacts of dietary exposure to plant-based aryl hydrocarbon receptor ligands on immune function 1 July 04/30 June 09
Schnabel Guido	1000642 S	ESPS	Integrated management of armillaria root rot and brown rot in Southeastern commercial peach orchards 1 July 05/30 June 10
Smith Kerry	1700340 H-S	Genetics	Role of the bacterial enzyme acetate kinase in the physiology of the eukaryotic pathogens <i>Cryptococcus neoformans</i> and <i>Entamoeba histolytica</i> 1 July 07/30 June 12
Wang LiangJiang	1700355 H-S	Genetics	Innovative bioinformatics resources for biomedical research 1 Jan 08/30 June 12

Biomass and Biofuels

<u>P.I.</u>	<u>Proj. No.</u>	<u>Department</u>	<u>Title</u>
Brune David	1700345 H-S-MRF S-1032	ABE	Improving sustainability of livestock and poultry production in the U.S. 1 Oct 07/30 Sept 12
Feltus Alex	1700381 H-S	Genetics	Sorghum feedstock for the emerging SC biofuel industry 1 July 08/30 June 13

Henson Mike	1700375 H-S	Biol Sci	Enhancing conversion of switchgrass to biofuels using the cellulose systems in <i>thermatoga neopolitana</i> and manatee intestinal tract microbes 1 Oct 08/30 June 13
Walker Terry	1700378 H-S	ABE	<i>PROJECT INCOMPLETE</i> (bioprocessing engineering) 1 July 08/30 June 13

Department names & abbreviations:

Agricultural & Biological Engineering (ABE)
 Animal & Veterinary Sciences (AVS)
 Applied Economics & Statistics (Appl Econ)
 Baruch Institute (Baruch Inst)
 Bioengineering (Bioeng)
 Biological Sciences (Biol Sci)
 Entomology, Soils & Plant Sciences (ESPS)
 Food Science & Human Nutrition (Food Sci)
 Forestry & Natural Resources (FNR)
 Genetics, Biochemistry & Life Science Studies (Genetics)
 Horticulture (Hort)
 Livestock-Poultry Health (LPH)
 Packaging Science (Pkg Sci)
 Parks, Recreation, Tourism Management (PRTM)
 School of the Environment (Sch of Environ)
 Sociology

Fund

H = Hatch
 M = McIntire-Stennis
 S = State
 MRF = Multi-Region Funds