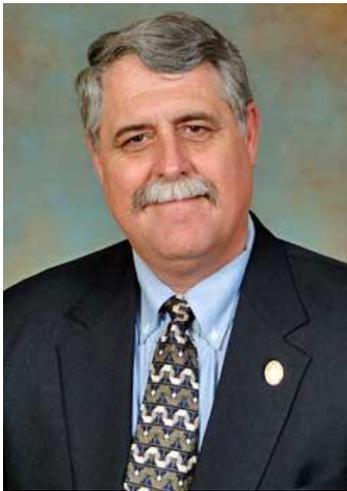




## COTTON FOUNDATION 2006-2007

### CHAIRMAN'S MESSAGE



The Cotton Foundation vigorously carries out its mission of encouraging, facilitating and conducting cotton research and education. However, support is weighted toward projects that can help the National Cotton Council carry out its mission of providing U.S. cotton industry members a world marketplace advantage. The Cotton Foundation was able to maintain nearly [70 members](#) as agribusiness mergers and acquisitions continued in 2006. These member firms' dues (\$370,252) went entirely in support of 26 general research and education projects for 2006-07. Investments and Washington building rental income also provided a small portion of the funding for these projects.

The 2006-07 Foundation general projects include ongoing work ranging from air quality and emissions studies to improving cotton quality and cotton processing. New general projects cover efforts ranging from managing glyphosate-resistant Palmer amaranth to support of a U.S. cotton leadership orientation in China. All of the projects are supporting the NCC's mission.

The U.S. cotton industry is enjoying a healthy return on investment from these endeavors, too. NCC staff estimates that taking into account cash and in-kind services, the Foundation's general projects enjoy a return of about \$3 for every dollar devoted to these projects.

The Foundation's special projects, funded by grants over and above member dues, are contributing to the industry's health in such unique ways as developing future industry leaders to increasing awareness about nematode damage/control. As a need arises, Foundation members are eager to offer their support for these special endeavors. That was evidenced by sponsorship of the Internet-accessible weed resistance module that is being initiated in 2006.

In addition, individual Foundation member firms continue to support key NCC communications vehicles, including the [Cotton's Week](#) newsletter, [AgDay Cotton's Week](#) and the [Cotton eNews](#) electronic newsletter.

**Craig Shook, Chairman (2006-07)**  
**The Cotton Foundation**

*(Shook served as the 2005-06 Foundation President)*

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**Neil Strong** Moneta, Virginia

## Advisors

**Roy Cantrell** Cary, North Carolina  
**Tim Price** Memphis, Tennessee  
**Tommy Valco** Stoneville, Mississippi

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## **PROJECT SUPPORT**

### **AGRONOMY**

#### **Prediction and Alleviation of Crop Stress for Yield and Quality Stabilization**

University of Arkansas scientists' work has shown a strong correlation in the Delta between high temperatures and low yields. They believe those temperatures' effects on pollination/fertilization are an integral reason for yield and quality variability – a hypothesis they are trying to quantify in 2006.

Under the direction of Dr. Derrick Oosterhuis, the University of Arkansas scientists specifically are: 1) evaluating and quantifying the effect of environmental stress on the development of boll weight, yield and fiber quality of cotton; 2) determining the effect of high temperatures on pollination, fertilization and seed set and motes and fiber quality; 3) analyzing available temperature data and analyzing it for trends; and 4) investigating management strategies for improving seed set and boll/fiber development under high temperatures.

### **FIBER & SEED QUALITY**

#### **Integrating Cotton Quality Information Between Gin and Farm (Phase II)**

The goal of this ongoing project is enabling cotton producers to make fiber quality maps and consider field input and other management practices with respect to fiber quality.

In the first year, a TexasA&M University researcher identified a system of hardware and software that can integrate fiber quality data between gin and farm. The data could be downloaded through the Internet and introduced into the farm GIS, after which fiber quality maps could be generated.

In 2006, work will focus on building a wireless communication system that maintains records between harvest area, basket load and module. Software will be developed to facilitate GIS-compatible input and storage of pertinent field data and USDA-AMS fiber quality data.

#### **Maintaining Cotton Lint & Seed Quality During Module Building & Storage**

Texas Agricultural Experiment Station research is aimed at decreasing costs associated with post production handling, storage and ginning of seed cotton.

Results from 2005 testing, showed that vinyl and film module covers showed no to minimal average water penetration while woven poly covers allowed minimal to high average water penetration. The study also indicated increased ginning costs from poorly protected seed cotton, with preliminary analyses, for example, showing that poorly shaped modules with poor covers can result in the ginning rate (bales/hr.) being cut by a third of that for well protected modules.

Investigators continue to develop tools and systems that will maintain cotton lint and seed quality during module building, transport and extended storage periods. Knowledge gained from this project will be used to support the development of a performance standard for cotton module covers.

## ENGINEERING

### Evaluations of EPA Approved FRM PM2.5 and PM10 Samplers

Texas A&M researchers are trying to develop an EPA-sanctioned process that will result in correction of "over estimation" of PM10 and PM2.5 concentrations of agricultural PM emitted by agricultural operations.

The scientists have been able to demonstrate to EPA the errors in sampling agricultural dusts with EPA approved samplers. The samplers do not perform the same when exposed to "real world" PM that includes a wide range of particle sizes as they do in the EPA evaluations where they are exposed to mono-disperse particles (all the same size). The researchers have designed, constructed and tested a wind tunnel to allow accurate control and measurement of PM concentration and particle size distribution with poly-disperse particles. They also acquired a Malvern Mastersizer 2000 Particle Size Analyzer, which adds greater accuracy to their evaluation of sampler performance and shifting cut-point associated with particle size distribution.

In 2006 they are validating their isokinetic sampling probe and evaluating sampler performance. This system will enable documentation of the cut-point and slope of various samplers operating under realistic conditions and comparison to EPA performance criteria. The data will be used to develop and support a process for correcting sampler data.



**Kyle Kieschnick, student technician, performs a particle size distribution (PSD) using a Malvern Instruments Mastersizer 2000. A sample of agricultural particulate matter is dispersed in liquid form to the optical unit which then captures a light scattering pattern and determines PSD based on Mie theory**

## **PM Coarse (PMc) Emissions from Cotton Gins and Field Operations**

TexasA&M University researchers evaluated the impact of a proposed coarse particulate National Ambient Air Quality Standard. They provided analysis and public comments to EPA to illustrate the documented errors associated with the EPA's approved Federal Reference Method (FRM) PM10 and PM2.5 samplers – which could lead to error prone measurements of PMc. This was accomplished by the use of a wind tunnel the engineers designed that allowed more accurate quantification of the overestimation associated with FRM samplers.

In this ongoing project, the researchers are evaluating the errors associated with the PM10 and PM2.5 samplers to obtain PMc concentrations and developing a method to obtain accurate PMc concentration measurements using Total Suspended Particulate sampler and particle size analysis. They also are developing a white paper to clarify the implications of PMc as a property-line standard.



**Jing Chen, graduate student, prepares FRM PM10 (particulate matter less than 10 micrometers) and TSP (total suspended particulate matter = 100 micrometers or less) sampler inlets for testing in a wind tunnel that allows for controlled PM concentration testing.**

## **Engineering Systems – Seed Cotton Handling and Ginning**

It has been estimated that an extended ginning season (six to nine months) could be a remedy for the steady decline in the number of U.S. gins. Such a system also could result in significant ginning cost reductions.

This project is formulating: 1) practical scenarios for cotton handling, storage and ginning in an extended season and 2) feasible transport systems where the gin service area is expanded to as much as a 100 mile radius.

Researchers at Texas A&M will be able to use data previously gained in this project, including ginning cost surveys and mapping of major and lesser roads and a layout of all possible transport routes, including limiting capacity of the interstate highways for transport of cotton modules.

## **Gasification of Cotton Gin-Byproducts for Heat and Power Generation**

The combination of escalating fuel and energy prices and an increase in gin trash due to bumper crops has given this project urgency. Texas A&M University engineers' primary goal for this project in 2006 is to demonstrate the technical and economic feasibility of using cotton gin trash to generate heat and power in cotton gins.

In 2005, pelleted cotton gin trash, supplied by the USDA Cotton Ginning Lab in Lubbock, was tested in a pre-commercial downdraft gasification unit. Engineers also evaluated the feasibility of installing a unit in a cotton gin and completed design of a modular downdraft gasification system.

## **A Science-Based Emission Factor for 6-Row Cotton Pickers**

The federal air quality standards will bring new challenges to U.S. cotton producers who may be faced with: 1) air quality permit application fees, 2) fines for violations of air quality permits and 3) costs associated with implementing practices or systems to reduce emissions from agricultural field operations.

In this new project, Texas A&M University engineers are developing a science-based emission factor PM<sub>10</sub>, PM<sub>2.5</sub> and PM<sub>10-2.5</sub> emissions from picker type cotton harvesting machines. Initial work will involve: 1) quantifying the PM emission factor from cotton harvesting operations and the difference in emissions between a two row versus a six row cotton picker; 2) developing a protocol for measuring source emission rates of PM from the six row harvester; 3) characterizing the particle size distribution of the PM emitted from cotton harvesting; and 4) determining which is more appropriate – reporting cotton harvesting emission factors on a mass of PM emitted per unit area or per bale of harvested cotton.

## **INFORMATION/EDUCATION**

### **Electronic Publication of the Journal of Cotton Science**

Over the past decade, the quarterly, on-line *Journal of Cotton Science* (JCS) has evolved into an important communications tool for the cotton scientific community – helping to keep the U.S. cotton industry competitive through ready access to multi-disciplinary research in areas ranging from agronomy to textile technology. JCS, available at <http://journal.cotton.org>, offers scientists a rapid outlet for their findings. During 2005, 30 manuscripts were published in JCS, which now has received and placed into peer review more than 300 manuscripts. JCS manuscripts contain an abstract that explains the research's value in layman's terms. Published as Adobe Acrobat (PDF) files for optimum versatility and access ease, JCS, which is copyrighted, was the first all-electronic journal to be indexed in AGRICOLA, the database of the National Agricultural Library. Patrick D. Colyer, Louisiana State University, serves as editor-in-chief.

### **Enhancing Cotton Industry Education and Information through the National Cotton Council Web Site**

The NCC's web site, [www.cotton.org](http://www.cotton.org), is critical to information flow within the cotton industry. The site, which sees about 9,000 page hits per day, also supports sites for the Beltwide Cotton Conferences, the National Cotton Ginners Association and The Cotton Foundation, including several Foundation special projects. In 2005, the site began supporting the American Innerspring Manufacturers' web site. Other improvements included an upgrade that enhanced the Beltwide Cotton Conferences' registration and check-in processes. The site continues to be enhanced with upgrades of content management, application server and web site statistics reporting software along with server hardware.

## **Support for the 4th World Cotton Research Conference**

The 4<sup>th</sup> World Cotton Research Conference, to be hosted by the United States in September 2007, is expected to draw between 600-800 cotton researchers and other industry participants. The forum will provide extraordinary opportunities for: 1) interested U.S. personnel to obtain information from international researchers and 2) showcasing the U.S. cotton industry's leadership in research, quality and efficiency.

This project will support the efforts of the International Organizing Committee which is making arrangements for the four-day event in Lubbock, TX, including agenda development, the review process for submitted papers and planning of tours for attendees. Following the Conference, proceedings will be published and provided to registered attendees.

## **Support U.S. Cotton Leadership Orientation in China**

With China's increased role in the global cotton and textile economy, this effort is aimed at lessening trade frictions and smoothening and expanding trade between the U.S. and China cotton industries. The specific objective is to improve bilateral understanding between the industries in order to anticipate issues and to improve mutual understanding so that concerns are addressed directly rather than spiraling into trade confrontations that are detrimental to both parties.

As a follow-up to numerous staff exchanges between the National Cotton Council and the recently formed China Cotton Association, mid-career individuals from the U.S. cotton industry will travel to China in fall 2006 to gain a deeper understanding of the entire Chinese cotton production/marketing system as well as the institutions that support it. A similar Chinese delegation will travel to the United States in 2007 to do the same. The U.S. industry team's experiences/information gained will be shared at various industry committee and board meetings.

The bulk of this project's expenses will be underwritten by \$100,000 of Foreign Market Development funds that Cotton Council International obtained from USDA's Foreign Agriculture Service.

## **NEW PRODUCTS**

### **Cotton Based Chemical and Biological Warfare Decontamination and Military Wipes: Technology Transfer**

The U.S. Department of Defense's Defense Threat Reduction Agency has listed the development of sorbent wipes as a priority research activity in FY06-07.

Scientists at Texas Tech University's Non-woven Lab have developed a "flexible cotton decontamination wipe" that has a number of military applications. Among objectives of this ongoing project will be to examine the protection capabilities of cotton based chemical protective substrates and decontamination wipes using a battery of toxic chemicals, including organophosphorous pesticide chemicals and 2) efficiently using needle-punching non-woven technology to develop lightweight cotton non-wovens and consequently using it to develop adsorbent cotton non-woven composite wipes.

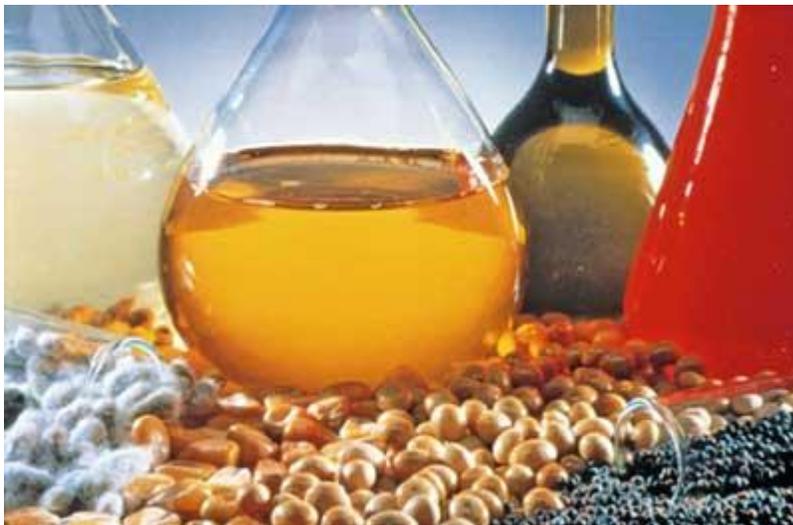
A value-added cotton non-woven wipe could mean increased market share and use-value for U.S. upland cotton.

## Value-Added Uses of Cottonseed and Its Co-products

As cottonseed is about 15-20 percent of the value of the cotton crop, value-added applications for cottonseed and the co-products of the processes that recover the linters and oil are needed.

USDA Agricultural Research Service scientists in New Orleans and College Station, TX, have: 1) made progress on oil extraction using acetone; 2) studied the effects of gossypol insecticidal effects and produced cotton plants with higher gossypol levels to defend against certain insects; and 3) found that refined-bleached-deodorized cottonseed oil contained detectable gossypol levels.

Current project objectives include: 1) developing improved fuel formulations that incorporate cottonseed oil and value-added uses of cottonseed co-products; 2) continue research on the use of acetone as an extraction solvent for cottonseed; 3) determine the gossypol ratios of cotton plants (roots and foliage) of backcrossed plants exhibiting the high gossypol seed trait; 4) determine the effect of racemic (+) and (-) gossypol on the specialist herbivorous insect *Helicoverpa virescens*; and 5) develop a half-seed analytical method for the determination and manipulation of oil levels in cottonseed.



**Investigators are looking at new uses for cottonseed oil, including improved fuel formulations such as bio-diesel.**

## Cotton Genetic/Variety Influence on the Comfort of Cottons Fabrics

The goal of this new project is to identify and relate specific genetic make-up in cotton that can provide better final comfort the wearers. This would strengthen cotton's position against synthetics and result in greater cotton consumption.

Specific objectives by Texas Tech University researchers are to: 1) understand the influence and relationship between cotton variety/traits which are based on different germplasm and the comfort and end-use performance properties of lightweight non-wovens; 2) have a thorough understanding on the performance of cotton varieties on the needle-punching non-woven process; 3) understand the relationship between important fiber characteristics such as length, micronaire and strength on cotton processing in needle-punching non-woven process and the performance of the cotton-based products; 4) develop cotton-based non-woven fabrics that find applications such as face masks; and 5) enhance the use and sales value of the U.S. upland cotton.

## **PEST/DISEASE MANAGEMENT**

### **Cotton Pest Loss Survey**

Annual estimates of cotton losses due to specific disease, insect and weed pests are made broadly available to public and private sectors. The Cotton Belt data, gathered at the Coordination Center at Mississippi State University, are useful for: 1) analyzing the market potential for new plant protection products, 2) establishing the importance of currently registered products that are threatened by cancellation or use restrictions and 3) setting research and educational priorities.

Databases of 1978-2005 insect loss and weed loss data and the 1952-2005 disease loss data has been published in the 2006 Beltwide Cotton Conference Proceedings, is available on CD-ROM and on the NCC web site for downloading.

### **Fusarium Race 4 Host-Plant Resistance: Field and Greenhouse Screening**

In 2003, Fusarium Race 4 was identified as a highly virulent pathogen with potential for serious impact in many commercial Pima varieties. However, in 2004 University of California scientists also have revealed high infection rates in most Uplands grown in limited tests done in FOV race-4 infested fields or greenhouse soils.

University of California researchers are screening commercial varieties and a wider range of Pima and Upland/Acala germplasm for resistance/susceptibility to race 4 FOV, with evaluations conducted under both greenhouse conditions with inoculated soil, and in two field sites.

This work complements a broader range of work by the University and USDA Agricultural Research Service scientists in identifying germplasm for further evaluations that may help with heritability estimates and further analysis of resistance and susceptibility.

### **Development of an On-Line Producer-Friendly Decision Aid for the Use of In-Furrow Fungicides**

Cotton seedling diseases accounted for 27 percent of the total estimated losses in lint production from diseases (1991-2000), even with the almost universal use of fungicide seed treatments. Producers must decide whether or not to use additional fungicides either on the seed before planting (planter-box, hopper-box or custom seed treatments) or in the planting furrow (in-furrow treatments). Producers spend \$10 or more per acre for the application of in-furrow fungicide products with the justification for these fungicides an insurance policy against greater cash inputs in replanting costs and/or yield reductions.

In this new project for 2006, a University of Arkansas investigator is developing a decision-aid from models developed for the response of cotton to in-furrow fungicides from data for the Mid-South. He also will develop and disseminate a user-friendly web site to assist producers in making in-furrow management decisions.

## **Cotton Reniform Nematode Web Page Development**

The Beltwide Cotton Nematode Committee is targeting late 2006 for having this best management web page online to assist producers in areas infested with the reniform nematode.

Because there are no commercially available varieties with resistance to this nematode, producers must rely on cultural practices, rotation with non-host crops and management with chemicals. Nematologists in Alabama, Arkansas, Georgia, Louisiana and Mississippi are examining all existing management options and integrating them into a total nematode management package.

## **Pink Bollworm Eradication Technical Support, Systems Development, Program Evaluation and Onsite Support**

The Pink Bollworm Eradication Program has reached an important juncture in development and implementation. Additional technical support is needed to offset the loss of two USDA positions that cover management, rearing, field support and technical development.

This project will provide all the necessary technical support in 2006-07 for a program that is tripling. That includes assistance in sterile insect release rates and distribution; pheromone use/timing; use of sterile insects as refugia; and development of any new resistance management studies as needed or required by EPA in cooperation with the University of Arizona.



**The Pink Bollworm Eradication Program has reached an important developmental juncture.**

## **Life History, Hybridization Potential and Competition Between the A, B, and Q Biotypes of *B. tabaci*, and Monitoring Plant Beacons to Track the Status of the Q/B Biotypes in 2006-07**

The Q biotype whitefly, which continues to be imported from offshore ornamentals' nurseries in the Mediterranean, poses a new threat to U.S. cotton and vegetable producers. Until the degree of risk posed by the Q biotype to U.S. agriculture becomes clear, the pest needs to be studied and monitored.

In this new project, University of Arizona scientists will determine the life history traits of both whitefly biotypes Q and B, which displaced the A biotype in the late 1980s. They will conduct mating studies and competitiveness for the A, B and Q biotypes on cotton. They also will carry out "plant beacon" surveys in the urban-cotton-vegetable interface and retail outlets to monitor the distribution of Q and B biotypes in southern Arizona.

## **Determining Insecticide Resistance Levels in Tarnished Plant Bug Populations Across the Mid-South**

Plant bugs, in particular the tarnished plant bug, have emerged as key pests in the Mid-South. Insecticide applications specifically targeting plant bugs have increased dramatically in the last 5-10 years.

In this new project, a team of scientists from Mid-South universities are determining the extent and level of resistance by tarnished plant bugs in populations across a broader geographic area. In 2006, they will monitor resistance levels in populations to the primary classes of insecticides used for their control. Results will be made available to producers and crop advisors through Extension meetings, scientific conferences and newsletters.

## **Developing Dynamic Action Levels During Flowering for Control of Tarnished Plant Bug in Cotton With Insecticides**

In another new project out of the Louisiana State University AgCenter, an investigation will relate squares (flower bud) injury to cotton yield losses during discrete flowering periods. Current and new classes of insecticides will be evaluated for their effectiveness using square injury and insect density.

## **Managing Glyphosate-Resistant Palmer Amaranth in Cotton**

Research has shown cotton is extremely sensitive to Palmer amaranth interference. Glyphosate-resistant Palmer amaranth has been confirmed in three Georgia cotton counties, and within those counties, resistance has been detected in 33 fields with other fields currently being investigated for resistant populations.

This new project, under the direction of University of Georgia researchers, is aimed at developing weed management programs for managing glyphosate-resistant Palmer amaranth in conventional and conservation tillage cotton. Investigators also will determine the exact locations of biotypes in Georgia; determine the time line and distance that resistance will spread through pollen movement; and quantify the competitiveness of glyphosate-resistant Palmer amaranth in cotton in order to help define the cost-benefit relationships with glyphosate-alternative management systems.



**Research has shown cotton is extremely sensitive to Palmer amaranth interference.**

## PRECISION AGRICULTURE

### **Database Development Project for Ground Image Sensor Based Variable Rate Application System**

In this ongoing project, scientists at Oklahoma State University believe that a new sensor based variable rate control system can reduce cotton production costs from \$60 to \$150 per acre.

In this project, scientists have found problems associated with excess vigor called "High Vigor Zone Syndrome" – discovered in conjunction with cotton fertility studies. They found this vigor problem is common in Southwestern cotton production and at a level that is significantly reducing cotton yields.

A site on an Oklahoma cotton farm has been obtained for testing in 2006 with imagery and yield maps obtained. Scientists are studying the "high vigor" issue and finding methodology to quantify the problems and propose solutions.



**Brice Callahan, left, and Karen VanMeter, use probes to collect soil samples for analysis as part of a variable rate application study being conducted by Oklahoma State University researchers.**

## **ENVIRONMENT/SAFETY**

### **Information and Research on Potential Consumer, Environmental and Workplace Risks**

This ongoing project helps in the development of technical data needed in the formation of codes, regulations and rules affecting U.S. cotton industry operations and products.

For example, this information has been helpful toward: 1) favorable fire and building codes' amendments governing cotton bale storage; 2) studying the economic impact of potential furniture flammability standards on cotton textiles; 3) favorable standards being developed for mattresses/bedclothes and upholstered furniture and retaining cotton beneficial amendments to the Children's Sleepwear Flammability Standard/prevention of unnecessary new standards for general apparel; 4) reasonable air emission standards for vegetable oil extraction; 5) addressing potential regulations on hexane, dioxin, lead and oilseed processing products; 6) assisting EPA to regulate vegetable oil differently than petroleum oil in spill prevention regulations; and 7) avoiding unworkable cotton dust regulations involving particulate matter (PM) emissions and ozone emissions from cotton production and gins.

Objective for the current year will focus on: 1) developing and evaluating research information on PM, ozone and other air emissions from cotton operations; 2) developing improved flammability treatments and test/economic data for cotton products and flammability information/education programs; 3) evaluating workplace health and safety risks related to cotton; 4) evaluating toxicity of chemicals used on cotton textiles, potential residues on cotton, and chemicals used in other cotton processes; and 5) updating the ITT burn database with new Consumer Product Safety Commission in-depth studies.

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## **SPECIAL PROJECTS**

***Special projects are funded by Foundation members over and above their regular dues. Grant amounts listed for the special projects are per-year amounts. Some projects have been funded for a specific length of time while others are ongoing.***

### **Producer Information Exchange (P.I.E.)**

**Bayer CropScience Grant: \$125,000**

Nearly 750 producers from across the Cotton Belt have benefited from this program – one that encourages its participants to maximize production efficiency and speed the adoption of proven technology and farming practices. During four tours, cotton producers travel to one of the four specific Cotton Belt production regions to get face-to-face interaction with their peers and observe production techniques and technology in regions different from their own. Participants also are able to share information with each other on the week-long tours. This enables them to be exposed to the diverse and innovative practices of the hosting region, providing them with more competitive technology and farming methods. For example, they get new ideas and perspectives in land preparation, variety selection, planting, tillage, fertilization, pest control, irrigation and harvesting.

All P.I.E. alumni are encouraged to attend the annual Beltwide Cotton Conferences as a way to further their knowledge of innovative technology and farming methods.



**Southeastern cotton producers saw farming operations and learned about water supply/use in California's San Joaquin Valley as part of the 2006 PIE program.**

## **Cotton Leadership Program**

**DuPont Crop Protection Grant: \$115,000**

The Cotton Leadership Program seeks to identify potential industry leaders and provide them with developmental training. A class comprised of four cotton producers and one member from each of the other six industry segments participates in five, week-long sessions. These provide: policy and issue discussions with current and former industry leaders; observation of production and processing and key research across the Cotton Belt; visits with lawmakers and government and regulatory officials in Washington, DC; attendance at the National Cotton Council (NCC) annual and mid-year meetings; and communications training.

Many of the 230 men and women who have participated in the program since its inception in 1983 have provided leadership in state, regional and national interest organizations. Some have served in the top positions of the NCC, Cotton Council International and The Cotton Foundation.

The leadership program's alumni are active and the program maintains a web site at <http://leadership.cotton.org> that provides description, application forms and other useful information.



**Members of the 2005-06 Cotton Leadership Class: Will Coley, Mitch Hensley, Jeff Hux, Tim Cox, Steve Bullard, Kevin Nelson, Heath Watson, Toby Robertson, Jason Ward, Forester Adams.**

## **Congressional Staff Education/Orientation Program**

**Monsanto Grant: \$110,000**

House, Senate and committee staffers get to see U.S. cotton's production and processing infrastructure by visiting farms, gins and other facilities across the Cotton Belt. The program's overall aim is to raise lawmakers' awareness of an efficient U.S. cotton sector and its contributions to this nation. Another message conveyed during the tours is the U.S. cotton industry's need to compete profitably in the global marketplace.

During the tours in the U.S. Cotton Belt, the Washington, DC-based staffers get to see cutting edge cotton production and processing operations, tour public and private research facilities, and visit with industry leaders on key issues facing the nation's No. 1 food and fiber crop.

**Cotton Council International (CCI) COTTON USA Advantage Program**  
**Monsanto Grant: \$75,000**

The COTTON USA Advantage Program supports CCI's overarching effort to increase demand for U.S. cotton fiber and cotton products – a vital endeavor as the U.S. cotton industry's profitability hinges on increased exports.

This program enables CCI to leverage funds from USDA through the Market Access Program and from other global partners to carry out retail promotion, advertising and trade servicing activities under CCI's supply-push/demand-pull strategy. Included is the "Cotton Gold Alliance" program in which CCI is partnering with Cotton Incorporated to stimulate demand for U.S. cotton and cotton products in countries where traditionally healthy manufacturer and consumer cotton consumption has been blunted by man-made fibers.



**Cotton Council International issues a quarterly newsletter with highlights of its export promotion activities.**

**Uniform Harvest Aid Performance Evaluation**  
**DuPont, FMC, Nichino America, Uniroyal, Valent Grant: \$70,000**

Researchers continue to evaluate standard defoliation and desiccation treatments and newer practices and products. The goal is to use findings to develop effective, contemporary harvest aid recommendations that contribute to harvest efficiency.

The scientists' initial findings were included in The Cotton Foundation Cotton Reference Book - *COTTON HARVEST MANAGEMENT: Use and Influence of Harvest Aids*. It and other volumes in that series can be purchased from the Foundation by visiting <http://www.cotton.org/cf/reference-books.cfm>.

## **Policy Education Program**

**Syngenta Crop Protection Grant: \$60,000**

Nearly 100 NCC producer members have been given the opportunity to learn more about the NCC's policy development and implementation process. As a result, many of those participants are involved in U.S. cotton's central organization today. Up to four producers from each major Cotton Belt region are chosen to attend the NCC's annual meeting. In July 2006, they visited NCC's Washington, DC, operations and met with key Congressional members and received communications training at Syngenta's headquarters in North Carolina.



**Members of the 2006 Policy Education Program are front row (l to r): Andrew Burlison, Shane Isbell, Dan Burns and Sam Whitaker; back row (l to r): Buddy Allen, Art Heiden, August Guteller, Paul Shirah and Stacy Smith.**

## **Cotton Nematode Research and Education Program**

**Bayer CropScience Grant: \$50,000**

Losses to nematodes have steadily increased over the past decade or so, due mostly to the spread of the reniform nematode. Nematode losses for 2005 were reported at 1,178,280 bales valued at about \$460 million. Cotton Belt nematologists and plant pathologists meet annually to discuss their research and report on their nematode population surveys. The overall aim is to curb losses to nematodes across the Cotton Belt. Information on nematodes, their distribution and control methods can be found in the updated booklet, "Cotton Nematodes: Your Hidden Enemies" and at the project's updated web site, [www.cotton.org/tech/pest/nematode](http://www.cotton.org/tech/pest/nematode). Reports given at the Beltwide Cotton Conferences, such as those presented at the 2006 Cotton Disease Council, also help further the efforts to increase awareness of the nematode threat and the available controls.



**The reniform nematode is an unseen but costly cotton pest**

## **Cotton Seedling Disease Research and Education Program**

**Bayer CropScience Grant: \$50,000**

This program helps determine losses to the seedling disease complex. Fortunately, losses to seedling disease were down slightly in 2005 due to good conditions at planting at many locations. Reported losses, though, still amounted to 470,154 bales valued at \$183.4 million dollars. The program also helps identify the basic disease spectrum in each locale and offers fungicide use and application methods in each state. More information is available to producers, consultants and others through the brochure, "Know Your Seedling Diseases," and at that project's updated web site, [www.cotton.org/tech/pest/seedling](http://www.cotton.org/tech/pest/seedling).

### ***Ongoing Special Project Contributions***

Several Foundation members are supporting the NCC-coordinated Beltwide Cotton Conferences through special projects. Monsanto sponsors the forum's newsroom, helping the 60-plus contingent of writers and broadcasters in their efforts to help transfer needed information to industry members ahead of the Conferences' proceedings. Monsanto lent its support to the Confex Podium system, launched in 2006, where conference reports are made available via the Internet to conferees. In addition, DuPont Crop Protection sponsors the conferences' online and on-site registration; Bayer CropScience sponsors the forum's continental breakfasts, Valent supplies the coffee breaks, BASF covers the audio-visual equipment and Syngenta supported the Internet Quickstop kiosks. Several special projects continue to help strengthen the U.S. cotton industry even though the projects' annual grants have ceased. Some special projects are still assisting the U.S. cotton industry even though the projects' annual grants have ceased. The Foundation continues to distribute volumes in its Cotton Reference Book Series, which can be [ordered online](#). A number of other Foundation activities are considered special projects and supported by specific member firms. In the Chemical Evaluation Project, for example, USDA Agricultural Research Service scientists at the Southern Insect Management Lab in Stoneville, MS, are analyzing insecticides and application methods with the goal of helping producers lower their insect control costs. Some other efforts helpful to cotton's overall research and education effort include: the artificial rearing of southern crop insects and the cotton insect rearing and distribution programs; the ginning lab fiber analysis and the periodic development and distribution of various NCC-produced educational videotapes.



**NCC President/CEO Mark Lange is interviewed by farm radio broadcasters Gary Dijuissepe, left, and Don Molino.**

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## AWARDS AND ENDOWMENTS

### Harry S. Baker Distinguished Service Award For Cotton

Bruce Brumfield, a former National Cotton Council president and cotton producer from Inverness, MS, received the 2005 Harry S. Baker Distinguished Service Award for Cotton.

The award, named for the late California industry leader and NCC President Harry S. Baker, is presented annually to a deserving individual who has provided extraordinary service, leadership and dedication to the U.S. cotton industry.

A partner in Brumfield Plantation and FTB Farms and vice president of Duncan Gin Inc. in Inverness, Brumfield was honored for his uncommon leadership and his distinguished and invaluable service provided to the U.S. cotton industry. He became chairman of the NCC's Board in 1995 after serving as NCC president in 1994. He is a past chairman of the NCC's Producer Steering Committee and a past president of the Delta Council and the Mississippi Cattlemen's Association. He currently serves as a director for Staplcotn Cotton Cooperative, the Community Bank of Indianola, Delta Pride Catfish and Delta Western Inc.

In recognition of his leadership and extensive knowledge, Brumfield was selected a member to the Commission on 21<sup>st</sup> Century Production Agriculture.

Previous honorees of the Harry S. Baker Award include Duke Barr, Lloyd Cline, Sen. Thad Cochran (R-MS), Robert Coker, Rep. Larry Combest, Charlie Cunningham, William B. Dunavant, Jr., Duke Kimbrell, Bill Lawson, Lon Mann, Frank Mitchener, Albert Russell, Jimmy Sanford, Earl Sears, B. F. Smith, Jack Stone, Charlie Youngker, and last year's recipient, Charles Stenholm.



**Bruce Brumfield, right, a former NCC president and Inverness, MS, producer, receives the 2005 Harry S. Baker Distinguished Service Award for Cotton from outgoing 2005 NCC chairman Woods Eastland.**

## **Oscar Johnston Lifetime Achievement Award**

The Oscar Johnston Lifetime Achievement Award is presented to an individual, now deceased, who served the industry through the NCC, and who demonstrated character and integrity as well as perseverance and maturation during that service.

There was no Award presented in 2006.

## **High Cotton Awards**

**Farm Press Publications Grant: \$15,000**

Growing good crops while doing their best to protect their soil, water and wildlife could best describe the motto of the recipients of the 2006 High Cotton Awards - the program that for 12 years has honored full-time who produce a profitable, high quality crop while meeting the best standards of environmental stewardship. The winners were: Cliff Fox, Capron, VA; Joe Bostick, Golden, MS; Lawrence Braswell, Raymondville, TX; and Wally Shropshire, Blythe, CA.



**Farm Press Publications Publisher Greg Frey, far right, congratulates recipients of the 2006 High Cotton awards from left: Wally Shropshire, Blythe, CA; Cliff Fox, Capron, VA; Joe Bostick, Golden, MS; and Lawrence Braswell, Raymondville, TX.**

## **Robert and Lois Coker Trustees Chair in Molecular Genetics**

**Endowment: \$1,000,000**

The Coker Chair has helped Clemson University obtain general assembly appropriations for biotechnology research. The chair itself attracts not only a top-notch faculty member to fill it but additional exceptional faculty as well. The resulting momentum helps attract state investments in facilities such as the new science and technology center and the state-of-the-art greenhouse complex at Clemson. The Chair currently is vacant and a university search committee is seeking a replacement.

**The C. Everette Salyer Fellowship in Cotton Research****Endowment: \$300,000**

This fellowship was inaugurated to honor the late California producer-ginner and former Cotton Foundation president, C. Everette Salyer.

Doctoral and post-doctoral level students are able to study and conduct research geared to the sciences of producing and marketing cotton. It also provides funding for recipients to attend the annual Beltwide Cotton Conferences, where they are able to share their results with industry leaders.

**Cottonseed Oil Clinic****Endowment: \$60,000**

Proceeds from a Mississippi Valley Oilseed Processors Association endowment support the Annual Conference of the Oilseed Processing Clinic. The clinic is jointly sponsored with the USDA Agricultural Research Service's Southern Regional Research Center and the National Cottonseed Products Association.

**George A. Slater Memorial Scholarship Fund**

A scholarship fund at Texas A&M University-Kingsville supports a student in a cotton-focused discipline. The fund was created from memorial scholarship funds commemorating the service of the late Foundation executive director, George Slater.

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