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USDA • APHIS • PPQ

CPHST NEWS

National Plant Board Meeting Report

August 15-18, 2004

People

Places

Projects & Programs

Publications

Policy & Plans

Presentations

Philosophy

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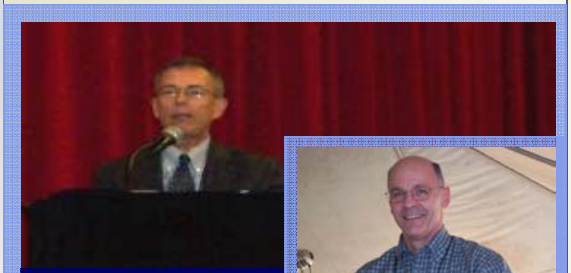
Bill Dickerson, President of the NPB, opened the 78th annual meeting at Grand Island, NY. Bill noted that this was probably the largest meeting on record, with 37 states represented and more than 200 attendees. APHIS was very well represented at the meeting with speakers from IS and IES, in addition to PPQ Program Managers from Riverdale and the Regions, and CPHST NSPLs and staff. In Bill's presidential address, he noted that US imports (including agriculture) are one Trillion dollars in value. These imports are constantly threatened by invasive species. Bill emphasized the importance of "forward planning" in dealing with invasive pests, and the need to deal with problems in different ways. Bill requested that a history of the National Plant Board be compiled and maintained.

Bob Mangari (SPRO, NY Dept Agric. and Markets) was chairman of local arrangements and planning for the meeting. Bob and his staff did an outstanding job of anticipating problems, facilitating the meeting and arranging interesting activities for attendees. (... Well done, Bob and staff!) Bob also introduced **Mr. Nathan Rudgers** (NY Commissioner of Agriculture) who gave statistics on New York agriculture. In a razor-sharp series of comments, Mr. Rudgers cited problems associated with agriculture in NY, the importance of continuing the CAPS program and the vital need for research of applied agriculture issues. He emphasized the importance of developing policy to fund research on invasive pests and diseases; he also noted the importance of survey, detection, eradication and strategic plans to address each component.



Dr. Dunkle (above) and Dr. DeHaven (right) at the National Plant Board Meeting in Grand Island, NY.

Dr. Ron DeHaven, APHIS Administrator, gave a detailed inventory of critical activities within APHIS. Most important, Dr. DeHaven underscored the message that APHIS is a science-based organization and that we cannot compromise science. In a companion presentation, **Dr. Ric Dunkle** said that PPQ is committed to science as the foundation of our work, that science influences many critical decisions and that Quality Assurance is a vital aspect of all work within PPQ. Dr. Dunkle also mentioned 2005 priorities for PPQ, including: Emergency preparedness, activities surrounding Sudden Oak Death, Q-37, Plant Inspection Stations, refining the concept for a PPQ Biosecurity Center, Quality Assurance for PPQ, strong and improving working relationships with CBP, development of a global fruitfly strategic plan, data gathering, GIS technology development and adoption, improved surveillance, and risk assessment. This list of priorities will influence CPHST activities during 2005.

> ***"APHIS is a science-based agency... science cannot be compromised."***
>
> *Dr. Ron DeHaven, APHIS Administrator*

A strong, positive working relationship with Customs and Border Protection remains an important objective for PPQ, and critical to achieving our goal of effective safeguarding. Newsletter readers may remember that **Jeff Grode** has left the PPQ Deputy Administrator's office to become the Executive Director of Agricultural Policies and Programs for CBP. Jeff attended the meeting and brought several Directors of Field Operations ("DFOs") to discuss Agricultural Operations from a CBP perspective. DFOs included **Tom Hardy**

Continued on page 2

National Plant Board Meeting (continued from page 1)

(Seattle), **Ann Lombardi** (Chicago and 11 midwest states), **Mike D'Ambrosio** (New York except NYC), **Tom Winkowski** (Ft Pierce to Key West) and **Robert Trotter** (Houston). The DFOs cited recent experiences to show their concerns, challenges and commitments to dealing with Agricultural Inspections. Other Federal Agencies represented at the meeting included ARS (**Rick Bennett**), CSREES (**Kitty Cardwell**), Forest Service (**Rob Mangold**), and the National Invasive Species Council (DOI, **Phil Andreozzi**).

The meeting also had several distinguished visitors addressing international issues. **Dr. Jorge Hernandez Baeza**, Director General of Mexico's Plant Health, discussed phytosanitary issues and the importance of binational workplans (mangoes, avocados, citrus) and cooperative binational programs (pink bollworm, boll weevil, fruitflies). He also reported that Asiatic citrus psyllid had been detected in Tamaulipas and Veracruz.

Mr. Ralph Iwamoto, Deputy Administrator of International Services, provided an overview of IS activities, and interesting comments on overseas working conditions, cultural customs and the important role IS can play in surveillance of pests overseas. **Dr. Manuel Mejia** reported for **Dr. Ian MacDonnell** on NAPPO structure and initiatives, including dispute settlement, invasive species, plants-for-planting and wood packaging treatment workshops.

View of Niagara Falls located near Grand Island, NY.

The meeting was complete with numerous presentations by industry leaders, university academic staff, PPQ Program Managers and Project Leaders. Collectively, these presentations provided status reports, identified critical issues and related new innovations pertaining to most of the major plant pests challenging American agriculture today. In summary, the meeting was a very informative, well-organized and effective gathering of people committed to safeguarding American agriculture. A meeting of the National Association of Plant Protection Quarantine Managers was held in conjunction with the NPB meeting. The NAPPQM meeting was held 19-20 August, with President **Patti Douglas** presiding.

Submitted by Gordon Gordh

Introducing the CPHST Workbench

September 2004

The CPHST Workbench is a web-accessible database currently in development, that will enable employees to better manage their work on projects, keep various types of records, and prepare periodic reports. The hope is that it will also lead to improved communication, better organization and improved transparency within CPHST.

The CPHST Workbench is being developed by a team of scientists at the Plant Epidemiology and Risk Analysis Lab in Raleigh and has the full support of the CPHST director. The database is in MS Access and is made web-accessible through Cold Fusion.

The various sections of the CPHST Workbench include:

- **Daily Log:** For employees to keep confidential daily notes
- **Project Management:** This is the main component of the Workbench. All projects (ad hoc, emergency, short and long term) are recorded here. The CPHST Project Plan can be generated and printed in the same format as the current Word Template.
- **Reports:** Custom reports can be generated on any information that is in the system. Reports that have been created include employee work assignments, projects, employee accomplishments, project progress, deliverables, and the annual report.
- **Suggestion Box:** Employees can send anonymous suggestions to CPHST management and view all suggestions submitted, as well as the manager's response to them.
- **Time Management:** Employees will be able to access their time sheets and conduct self-assessments on how they spend their time
- **Travel:** This section links to official forms, such as the travel authorization request form and travel voucher. Trip reports are also entered here.
- **Meeting and Phone Call Log:** To keep summaries of meetings and phone calls.
- **Room and Equipment Sign-up:** (Useful for some of labs.)
- **Training:** Links to official forms. Training summaries and evaluations can be kept here.

The project will be rolled out in phases and will not initially have all of the functions listed above. Functions **will be customized** for each of the labs in a later phase of its development.

Beta testing of the CPHST Workbench begins at the end of September. CPHST employees will continue to receive updates on project progress via email. Stay tuned for details!

Submitted by Heike Meissner

Workbench team from left to right: Andrea Lemay, Heike Meissner, Heather Hartzog, & Alison Neeley

Good Flies and Spatial Technology

August 2004

APHIS is allocating significant funding to the rearing and distribution of phorid flies to state collaborators for releases in numerous imported fire ant (IFA) infested states. The flies occur naturally in South America and were imported by ARS as part of a biocontrol research program. Factors related to successful fly releases and establishment include habitat type, eco-region, land use, previous treatment strategies, and IFA population densities and social form. GIS (Geographic Information Systems) is a dynamic tool that CPHST is using to organize and compile these factors into an integrated program. This approach can be of immense value in targeting areas for efficient and effective fly releases.

Map of phorid fly releases in southeastern US.

Currently, two phorid fly species have been released in the APHIS release program, *Pseudacteon tricuspus and P. curvatus*. However, another species, *Pseudacteon litoralis,* is planned for release in 2005. As more phorid species are released, this program will provide regulatory officials a tool to monitor multiple phorid species releases, establishments, and spread.

Dr. Ron Weeks is leading a project to develop a decision management system that will be delivered as a web-based application to collaborators. This GIS program will serve as a model for future CPHST survey and monitoring programs and is being structured to enable future linkage with other IFA control strategies or biological control agents, to enable estimation of their impact on IFA populations under different management scenarios. Two related components of the project are: 1) a phorid fly tracking program, and 2) a predictive decision and management support program. Each component is structured as a stand alone program with supporting data for the predictive model relying on data from the tracking component. The tracking component of the project is being initiated in the first two years of the multi-year project and uses GIS technology to display and organize information on phorid fly releases within states.

Submitted by Dan Fieselmann

USDA Senior Invasive Species Coordinator Visits CPHST

August 15-18, 2004

Hilda Diaz-Soltero, USDA Senior Invasive Species Coordinator, visited CPHST in Albany, CA to learn more about invasive weed biological control programs, particularly salt cedar and yellow starthistle. She also visited several field sites and had meetings with numerous APHIS and ARS cooperators and stakeholders.

During her visit with CPHST, Hilda was provided with an overview of our current projects, including the development of an artificial diet for root feeding biological control agents. She also learned of the multi-state, multi-agency interest associated with the project (including from Montana, Colorado Department of Agriculture, and USDA-ARS). CPHST's work in supporting the salt cedar biological control effort (via biological studies and diets for bio- agents) was presented, including the work to pursue additional new agents (including root feeders) that attack this high priority exotic and invasive weed. CPHST's work on yellow starthistle was also discussed, including experimental work on a new Italian strain of *Chaetorellia succinea*. Further explanations of this approach were provided when visiting the field site at Cache Creek Conservancy. Hilda met with landowners, farmers and the local Agricultural Commissioner. Everyone stressed the importance of cooperative programs between USDA, local government and private groups, and were particularly pleased that a current project integrates multiple weeds as targets using expertise from several USDA Agencies (ARS, APHIS, FS & NRCS).

Submitted by Nada Carruthers

Discussing new technologies with diet development & assessment.

Coming Soon to your Network: The PPQ Global Pest and Disease Database

August 2004

A significant part of CPHST's role involves the collection and analysis of information. After information is collected and analyzed it must be stored in a way that facts may be easily retrieved. Enter the database... Dozens of databases are used by PPQ staff and managers in their routine activities, many of them hosted by APHIS, the USDA, or other Federal Agencies. No other database provides a comprehensive biological information archive for exotic pests of concern to PPQ.

Remember the PPQ Safeguarding Review? (How could any of us forget...) The Review addresses the care, feeding and exercise of databases through several recommendations. In fact, three of the Review's Issue Groups collaboratively drafted an implementation plan, which charged CPHST with development and maintenance of a Global Pest and Disease Database (GPDD).

Objectives of the GPDD are numerous and diverse. First, the Review wanted CPHST to design and maintain a web-accessible, user-friendly information archive for **exotic pests of concern to PPQ.** Next, we were asked to link GPDD with other databases. Of particular concern was the need to identify emerging pests that threaten the U.S. In addition, the database was asked to identify pest information "data gaps" and enhance exclusion resource allocation. Finally, the GPDD was intended to support PPQ programs, including off-shore surveys, domestic surveys (exotic pest detection program), pest risk analysis, and agricultural quarantine and inspection activities (including DHS functions).

In September 2002 the GPDD was approved and funded, establishing a cooperative agreement for technical support with North Carolina State University's Center for Integrated Pest Management. Project Staffing began in January 2003 and currently consists of a GPDD Project Lead (**Woody Bailey**, CPHST), GPDD Technical Manager (**Karl Suiter**, NCSU) and four research associates.

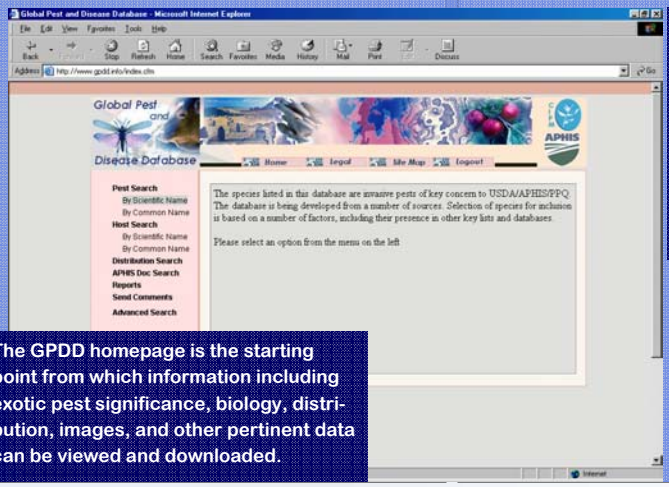
The GPDD's ultimate "pest universe" (taxa suitable for inclusion in the database) is all exotic plant pests that are of actual or potential regulatory significance to the U.S. While this implies a tremendously large number of organisms, previous prioritization activities have identified many of the "worst actors." Exotic pest lists compiled by PPQ and our collaborators have provided the initial species population for the GPDD.

The database now contains about 900 pests, with data fields including taxonomy, distribution, hosts, images, biology, significance, potential pathways (of introduction), diagnostics, and management (including survey protocols, diagnostics, and control options).

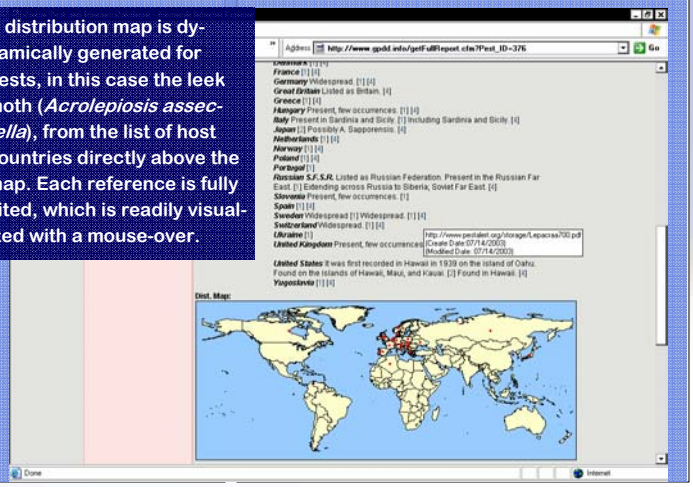
Key features of the GPDD include web citations that are hotlinked and archived as pdf's, dynamically generated distribution maps, and downloads of relevant APHIS documents. If this utility were not enough, the GPDD also generates printer-friendly reports and possesses "advanced" search capabilities. GPDD is a dynamic resource, integrating with other data sources via the World Wide Web.

As a continuing project, the GPDD will add new exotic pests while simultaneously augmenting existing pest profiles as new information or linkages become available. Specific goals for the future include: partnership with the National Invasive Species Council (www.invasivespecies.gov), integrate access to CABI Crop Protection Compendium, provide seamless query capabilities for PIN data from GPDD, integrate Regulated Plant Pest List dynamically with GPDD, integrate CPHST predictive pest modeling activities, integrate other CPHST and PPQ databases where appropriate, and integrate pest prioritization models and biosurveillance data mining approaches.

Submitted by Woody Bailey



The GPDD homepage is the starting point from which information including exotic pest significance, biology, distribution, images, and other pertinent data can be viewed and downloaded.

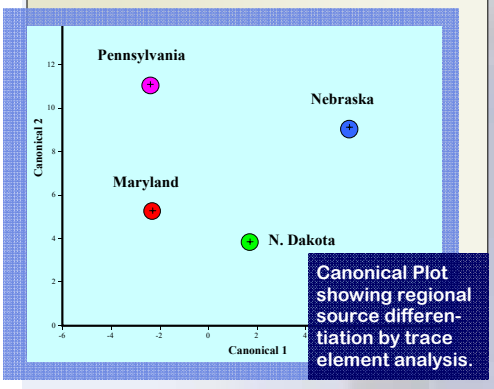


A distribution map is dynamically generated for pests, in this case the leek moth (*Acrolepiosis assectella*), from the list of host countries directly above the map. Each reference is fully cited, which is readily visualized with a mouse-over.

Commodity Origin By Trace Element Analysis

August 2004

Identification of prohibited commodities using normal classification procedures is often very difficult particularly when the prohibited commodity is a mixture. CPHST's Analytical and Natural Products Chemistry Lab (Gulfport, MS) over the past 14 months has studied and developed techniques to identify the geographical origin of commodities. Commodity Source Identification is needed to interdict smuggling and to challenge the importation of prohibited commodities that have a high potential for harboring invasive species. The identification of these commodities can be determined by Trace Element Analysis using an Inductively Coupled Plasma-Mass Spectrometer (ICP-MS). In conjunction with the instrumental procedures, we have developed protocols for sampling, sample preparation, analysis, and statistical techniques necessary to define the commodity source.



Canonical Plot showing regional source differentiation by trace element analysis.

Sampling and sample preparation were major issues. Field sampling for authentic samples to build a data library for long-term classification stability must be conducted over several growing seasons and represent the growing regions geographical variability. Library development requires multiple years to account for variation in mineral uptake caused by moisture, fertilization and cultivation practices. Authentic and unknown samples must have GPS coordinates and be transferred under chain-of-custody for legal purposes.

Experimental data indicates that the different parts of a commodity have different elemental profiles. These differences create larger variances if the whole commodity is used in the analysis. We divide the commodity into its component parts for analysis. This leads to two outcomes. One is a reduction in the data variance, which improves the distinction between growing regions and the other is multiple data sets, by part, for conformation.

To date we have acquired data on potatoes, avocados, mangos and parvals, and are conducting testing on fruit flies.

The lab has developed a procedure to provide valid results by direct comparison while we continue the development of commodity libraries. The direct comparison technique requires samples of the authentic commodity as well as the unknown for classification. Statistical modeling supports an error rate of less than 2% for either the library approach or the direct comparison approach. The advantage of the library approach is reduced cost once a data library is established and a higher statistical assurance that the classification is correct. Another critical factor is the ability to ascertain whether the unknown sample consists of more than one source as commingling is anticipated in smuggling. The lab has developed statistical techniques to identify commingling and the source of the commingled commodities.

For further information and sampling guidance, contact **Dr. David C. Campbell** at (228) 822-3129.

Submitted by John Gallagher & David Campbell

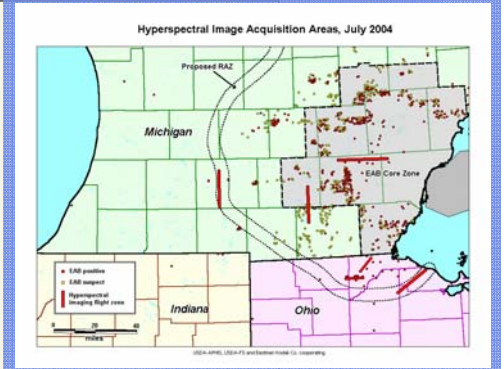
UPDATE: Emerald Ash Borer Remote Sensing Project

August 2004

The Emerald Ash Borer Remote Sensing Project (See July Newsletter) has been progressing smoothly. In July, hyperspectral images were collected over three flight lines in Michigan and three in Ohio (see map right.) The images will be analyzed along with data collected on the ground by two teams of three people each. Employees from CPHST (**Alan Sawyer, Dave Bartels** and **Jimmy Moody**), USDA-FS (**Alex Mangini**), and Eastman Kodak (**Stephen Gulick** and **Steven Robinson**) participated in the effort. USDA-FS and Kodak contributed financially by covering travel and salaries for non-CPHST personnel and providing some of the equipment and supplies.

All parties (USDA-FS Remote Sensing Application Center), Kodak and CPHST (Mission and Otis) will receive complete sets of the data and field notes and will work together to pursue various approaches to analysis. Kodak will provide their analytical services at no charge to USDA. SAIC, another company specializing in the analysis of remotely sensed data and with interest in this project, has been invited to look at the data as well.

Submitted by Alan Sawyer



Map identifying the July 2004 flight zones.

Inside the Pest Detection and Exclusion Lab, Otis, Massachusetts

September 2004

The Otis Pest Survey Detection and Exclusion Lab, formerly the Otis Plant Protection Center and the Otis Gypsy Moth Lab, was established in 1962 in response to a growing problem and program for control of the gypsy moth.

The Otis Lab is located on the Otis Air National Guard Base on Cape Cod in Massachusetts. Thomas McIntyre was hired from the U.S. Forest Service to establish and direct the lab. Some of the first employees were Lynn Kennedy, Win McLane and Rebecca Upton. In the early years, the lab was heavily involved in developing control techniques and isolating and utilizing the gypsy moth pheromone. Early work included the culture, release and evaluation of natural enemies, as well as development and testing of chemical pesticides. To support the program, hundreds of thousands of adult females were "extracted" in solvents to collect pheromone for baiting survey traps. Directors, during this period, included Carroll Collier, Flip Phillips and Lynn Stevens.

In addition to gypsy moth research, some work was focused on the browntail moth. This defoliator of fruit and forest trees, which was introduced almost 30 years after the 1869 introduction of the gypsy moth, had spread and infested a greater area than the gypsy moth by 1914. In addition to the defoliation damage, its urticating hairs caused health problems wherever its numbers were abundant. Work was largely focused on the development of biological and chemical control methodology.

In the early 1970's, damage by several forest insects was severe in the United States: the gypsy moth in the Northeast, the southern pine beetle in the South, and the Douglas-fir tussock moth in the Pacific Northwest. These three "big bug" programs were funded by a special appropriation bill in 1974 and a program was established directly out of the office of the Secretary of Agriculture. The Otis lab was identified as one of the key sites where technology to support the gypsy moth efforts would be developed. In 1974, Chuck Schwalbe was hired as the Lab Director and the number of scientists and staff was increased to support the new methods development effort. Otis had the primary responsibility for the development of pesticides and the records indicate hundreds of candidate pesticides (numbered compounds) were screened, and if promising, formulated and field tested in thousands of experiments.

The lab played a lead role in developing the mating disruption technique. Based on the investment in technology in this arena in the 1970's, this technique is used today, operationally, to treat more acreage (> 600,000 ac/year) than any other method.

Other significant outputs from the gypsy moth research of Otis' efforts were development of the **Delta** trap. This trap is used operationally (> 350,000 trap/yr) in the gypsy moth program, and it also has been adopted by the pink bollworm and a number of other programs around the world. A second high-capacity monitoring trap, "the USDA milk carton trap," was also developed at Otis and is used operationally in the Slow-the-Spread (STS) and Asian gypsy moth port monitoring programs.

In the 1980's, the lab developed an Exotic Pest Detection program for exotic insects based on trapping with pheromone baits. Information from historical databases was used to identify high-risk exotic insects, project their potential range in the United States, and develop guidelines on how to survey. Pheromone and dispensers for the target exotics were evaluated and, when necessary, improved, and in some cases, pheromones were identified.

In 1996, the lab became and continues to be heavily involved in the Asian longhorned beetle program. The standard operational systemic insecticide treatment, survey strategy, and quality control procedures are all products of the lab. Work in progress continues to focus on developing more effective control materials and application techniques and characterizing the spatial dynamics of this insect in urban/suburban landscapes. Remote sensing is also being evaluated as a tool to survey more efficiently and effectively.

More recently, the emerald ash borer has occupied the agency's and the lab's attention. Several areas of research, including control (biological and chemical), survey and regulatory aspects are being addressed. Development projects include the evaluation of systemic pesticides, foreign exploration, and evaluation of biocontrol agents, the identification of behavioral cues (semiochemical and visual), which can be exploited in developing survey procedures, and the evaluation of hyperspectral imaging for survey.

In the regulatory area, the Otis lab has increased its efforts over the last six years. It is evaluating radio frequency (RF), microwave, fumigant, heat and pressure treatments of equipment, commodities, and solid wood packing material. Scientists have evaluated the risk of a frequently intercepted pest, *Copitarsia* spp., and developed the supporting biological and trade data for this assessment. Otis personnel continue to respond to requests for technical information and evaluations of shipping materials and regulatory treatments. Scientists have also been actively involved in developing information to support APHIS' position on trade issues, including exporting logs, cherries, apples and cotton.

As CPHST continues to expand the scientific base of PPQ, the lab will be involved in developing the next generation of survey and control technology, including biosensors, nanosensors, and the use of novel control strategies.

Submitted by Vic Mastro, Lab Director

Show Me the Money!
Two Analysts Create Valuable Accounting Structure

September 2004

CPHST scientists collectively are involved in hundreds of projects each year. Budgeting and accounting for the money assigned to each project is a challenge. How can anyone keep track of specific funds when confronted with a sea of numbers? CPHST is exceedingly fortunate to have two highly competent Program Analysts in our Gulfport, MS facility who enjoy working on problems such as this. Analysts **Karen Abernathy** and **Barbara Sowell** have successfully initialized specialized accounting structures to identify expenditures by project. This is no small task when considering the number of projects and the different ways money is spent. In previous fiscal years, it was not practical to track costs by project due to limitations in the official accounting system. Nevertheless, Karen diligently pursued authority to take the path less traveled, and initiate use of alpha characters in the historically "numeric only" accounting code string.

Barbara and Karen conducted extensive testing near the end of Fiscal Year 2003, and users of all "feeder systems" were asked to participate in the tests. The result of their efforts has become a new accounting structure that was launched for all CPHST projects for FY 2004. This system has been of significant value at many levels of the organization. For instance, Project Leaders can easily identify expenditures for each individual project; Lab Directors have access to unique automated reports by project with lab summaries; National Science Program Leaders can use the spending information in review and evaluation of project progress. Finally, financial analysis is enhanced by the detailed and summary data now available. We are pleased to report that other units within APHIS have expressed interest in this tracking tool, and information regarding access and utilization of the system has been shared with other units. This ground-breaking, precedent-setting procedure is a good example of CPHST leading the way for innovation in PPQ and APHIS. Well done Karen and Barbara!

Submitted by Gordon Gordh

Program Analysts Karen Abernathy & Barbara Sowell

CPHST Wraps up Summer Wellness Challenge

September 2004

This summer, APHIS Work Life Wellness and the CPHST Safety and Health Committee sponsored a "Summer Wellness Challenge" to encourage employees to lead healthier, more balanced lives. A total of 36 employees participated in the challenge which ran from the 4th of July to Labor Day.

Employees collected weekly points throughout the summer by engaging in a variety of activities including exercising regularly, eating healthy, volunteering in their community and getting adequate rest. In addition, they earned bonus points by participating in special weekly challenges. Participants reported their scores each week to **Alison Neeley**, the CPHST Work Life Wellness representative.

At the end of the challenge, participants who accumulated 150 points or more received an award from APHIS Work Life Wellness. Recipients of the award include: **Russ Bulluck, Alan Dowdy**, **Larry Fowler**, **Doug Harris**, **Christie Hurt**, **Shannon James**, **Dawna Jones**, **Carey Laney**, **Andrea Lemay**, **Judit Monis**, **Alison Neeley**, **Orlando Nino**, **Betsy Randall-Shadel**, **Josie Salinas**, **Jim Smith**, **Michelle Walters**, and **Leeda Wood**.

Andrea Lemay, Michelle Walters, and Larry Fowler received a special award for finishing the challenge in 1st, 2nd, and 3rd place respectively.

In addition, APHIS Work Life Wellness awarded the Beltsville, MD lab a piece of exercise equipment for their building for accumulating the most points per capita.

Overall, the CPHST Wellness Challenge was very successful and other APHIS Work Life Wellness representatives have requested information from CPHST on how to sponsor similar events in their respective programs.

Submitted by Alison Neeley

CPHST Spotlight: Christina Devorshak

September 2004

Christina Devorshak joined the Plant Epidemiology and Risk Analysis Lab (PERAL) in Raleigh, NC as a risk analyst in March 2004.

Prior to working with APHIS, she earned a B.S. in Biology from Mary Washington College in 1991, an M.S. in Entomology from North Carolina State University in 1994 and a Ph.D. in Entomology from North Carolina State University in 1999. Her graduate research focused on biochemical mechanisms of insecticide resistance and detoxication mechanisms in insects. After completing her Ph.D., Christina was offered a position as Associate Professional Officer (supported directly by USDA-APHIS) working in the Secretariat of the International Plant Protection Convention (IPPC). During her tenure in the IPPC, she participated in a wide range of activities dealing with harmonization of phytosanitary measures at the international level. This included working on issues such as the IPPC, SPS Agreement, the Convention on Biological Diversity, pest risk analysis, invasive species, GMOs, and the development and implementation of International Standards for Phytosanitary Measures (ISPMs) in agricultural trade.

In her spare time, Christina is an avid equestrian, rides as often as possible, and has recently started competing locally in dressage and hunter shows.

CPHST Spotlight: Lisa Ferguson

September 2004

Lisa Ferguson joined CPHST to work with the Plant Epidemiology and Risk Analysis Lab (PERAL) in Raleigh, NC as a commodity risk analyst.

She had a long (perhaps too long!) history at NC State University. She previously worked at NC State in the Plant Pathology Department as a post-doc researcher. Her post-doc work involved research on pre-plant methyl bromide alternatives for strawberries and vegetable crops. There was plenty of diversity in the tasks: extension work with growers, field, greenhouse and Lab research, as well as coordinating activities of cooperators in the program.

She also completed both her PhD and Master's degrees in Plant Pathology at NC State. Her PhD research included population genetics studies of foliar corn pathogens, with (itchy!) summers spent in the corn field as an active member of a maize breeding program. Her earlier MS research included studies of conservation tillage practices and their influence on soilborne pathogens of peanut.

She's happy to be working with the team here at CPHST and looks forward to meeting and getting to know her team members.

CPHST Spotlight: Nicanor Liquido

September 2004

Nicanor (Nic) J. Liquido is a Senior Risk Analyst, concentrating on export risk assessment and risk management, with the Plant Epidemiology and Pest Risk Analysis Lab (PERAL). Nic's responsibilities include identification of viable export commodities, risk assessment, evaluation of phytosanitary measures, and development of quality assurance and "work plan" protocols. The nature of Nic's responsibilities necessitates co-location with the USDA-APHIS-PPQ Western Region State Plant Health Director's office in Honolulu.

Nic received a B.S. with concentration in Entomology and Applied Zoology and a M.S. in Insect Ecology and Genetics from the University of the Philippines at Los Banos. Under the sponsorship of East-West Center/Fullbright Hays Programs, Nic received a Ph. D. in Insect Population Ecology and Biometry. Immediately after his doctoral program, Nic worked as a Research Faculty at the University of Illinois at Urbana-Champaign. After three years with the academia, Nic joined the USDA Agricultural Research Service (ARS) in 1985 as a fruit fly Research Scientist. After ten years with ARS, he was appointed as Director of the facility formerly known as USDA-ARS Tropical Fruit and Vegetable Research Lab. Nic rejoined USDA in 2003.

Nic and his wife, Susan Heftel-Liquido, are happily nurturing their four teenagers: Francisco, Fernando, Carlo, and Tiara. The entire Liquido family has passion in exploring the world.

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CPHST Philosophy: An Open Forum

CPHST Philosophy: An Open Forum is the section of the Newsletter dedicated to sharing employees thoughts, questions, concerns, and ideas about CPHST's mission, structure, methods, role, and management. Employees are invited to send comments to Gordon Gordh: gordon.gordh@aphis.usda.gov.

This month, Dr. Richard Dunkle, Deputy Administrator for USDA APHIS Plant Protection and Quarantine, shares his thoughts about CPHST and our role in protecting American agriculture.

With the many changes occurring both within CPHST and throughout PPQ, we are well on our way to making PPQ a premier science-based action and regulatory program. Our decision several years ago to create the five National Science Program Leader positions has already paid dividends many times over. By filling these positions with nationally and internationally recognized scientists, CPHST has been able to quickly infuse the latest science and technology into emergency programs to fill critical needs. Recent examples include sudden oak death, Ralstonia, emerald ash borer, Asian long horned beetle, and fruit fly programs. Our CPHST scientists have also been involved in supporting a wide array of operational and regulatory programs and issues ranging from pest detection, GIS, database development, and risk assessment to grasshopper management, quarantine treatments, and biological control.

CPHST as an organization has stepped up to the plate to ensure relevancy of all its programs and functions. Dr. Gordh and all CPHST program managers have responded to the development and review of the portfolio of projects and the creation of the ad hoc project system. We also now have a tracking system for all PRAs that are under development. Hard decisions have been made to manage limited resources through program redirections, lab closures, and adoption of performance-based management measures. In addition, CPHST has made a strong commitment to quality assurance and quality control through the establishment of a QA/QC coordinator position and a plan for ISO certification of critical processes and functions. As a result, CPHST is indeed a strong, relevant, and well managed organization.

I recognize that many of these decisions and changes have been painful, but absolutely necessary. It is essential that CPHST develop and maintain a resource that not only delivers relevant technology and scientific information to our programs, but also provides leadership for future science and program investments. We need to evolve toward a PPQ organization that routinely embraces and relies on science as a matter of principle. All of our specialists and program managers throughout PPQ need to view themselves as scientists and technical experts. Likewise, CPHST needs to be viewed by our operational programs as the preferred source of science and technology to meet their needs.

Further changes in the way we safeguard agriculture and natural resources are inevitable, and CPHST will have a major role to play. For example, we are embarking on a major overhaul of our Q-37 plant propagation regulations. How we consider clean stock programs, best management practices, and certification approaches will require significant CPHST input. We will need CPHST on the ground floor as a full partner in considering how to move away from visual inspection of propagative materials, and the development of real-time surveillance systems in lieu of visually-based pest surveys. We are also being challenged to develop more efficient rulemaking approaches which likely will necessitate the development of new approaches to risk assessment. New treatments of all kinds need to be developed and adopted as we lose current chemicals and fumigants. More work is needed to develop strategies for mitigating exotic pests and diseases that are not yet within our borders, just to mention a few.

Recent outreach efforts you in CPHST have been making are beginning to pay off. Continuing these efforts will ensure that CPHST ultimately becomes fully integrated throughout PPQ. Keep up the good work!

Submitted by Richard Dunkle