Ag in Action

February

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From the Director's Desk

As you may have already heard, members of the legislature are looking to consolidate the duties of the Structural Pest Control Commission (SPCC) into the Arizona Department of Agriculture. This consolidation is part of the Governor's plan to consolidate as many Boards, Councils, and Commissions into state agencies as possible.

Thirty-nine other state departments of agriculture already regulate structural pesticides, and almost all other states have all pesticide regulations consolidated into one department. Change is never easy, but this is one area where consolidation could benefit the regulated communities in both agriculture and structural pesticides to create a one stop shop for all pesticide regulations in the state.

With the added responsibilities would come added resources and staff to our Department to deal with the increased work load and responsibly. A new section would be created within the Environmental Services Division (ESD) to handle structural pesticide compliance and additional staff would be added to MIS, Accounting, and Licensing to handle the increase in workload.

We will continue to work with the legislature to make this transition as smooth and efficient as possible and if the State Legislature and Governor ultimately decide to consolidate the duties of the SPCC into our Department we welcome this change and will use it as an opportunity to improve our service to the public and all regulated industries.

ESD Protecting Your Milk and Feed

Preventing aflatoxin contamination key to safe milk and feed

According to the U.S. Food and Drug Administration (FDA): "Aflatoxicosis is poisoning that results from ingestion to aflatoxins in contaminated food or feed. The aflatoxins are a group of structurally related toxic compounds produced by certain strains of the fungi *Aspergillus flavus* and *A. parasiticus.* Under favorable conditions of temperature and humidity, these fungi grow on certain foods and feeds, resulting in the production of aflatoxins. The most pronounced contamination has been encountered in tree nuts, peanuts, and other oilseeds, including corn and cottonseed. Aflatoxins produce acute necrosis, cirrhosis, and carcinoma of the liver in a number of animal species; no animal species is resistant to the acute toxic effects of aflatoxins; hence it is logical to assume that humans may be similarly affected."

Quoting from Wikipedia, the online encyclopedia: "The toxin (aflatoxin) can also be found in the milk of animals which are fed contaminated feed."

The name aflatoxin comes from A (Aspergillus) + FLA (flavus) + toxin.

In 1986 the Aflatoxin Certification Program was established to protect the Arizona cottonseed industry, dairies and ultimately consumers of milk. Several major events led to the establishment of this Program:

- Modern research into aflatoxin in 1961 looked into what caused the deaths of 100,000 young turkey poults in England. The research traced the poison to contaminated Brazilian peanut meal that had been used as feed.
- As a result of cottonseed testing for aflatoxin by the FDA in Arizona, 130,000 gallons of raw milk for pasteurization, and 10,000 gallons of finished product were dumped between August, 1978 and January 1979.
- In 1980 cottonseed from Texas contaminated large quantities of milk in Arizona which had to be dumped.
- In 1982 the Arizona State Chemist Office surveyed aflatoxin levels in Arizona cottonseed statewide showing high levels of aflatoxin. As a result the ammoniation process was approved to reduce aflatoxin levels below 20ppb.

Since Arizona agriculture is a major producer of cottonseed for animal feed, the Arizona Department of Agriculture, Environmental Services Division, has an ongoing program for the sampling and testing of cottonseed for aflatoxin. There are three approved methods of sampling: Corkscrew Trier, Probe-A-Vac, and Stream Sample.

The **Corkscrew Trier** is a mechanical screw device, approximately 50 inches long. Each probe by the trier can hold at least a three pound sample. Normally, a minimum of ten probes or not less than thirty pounds of cottonseed is obtained per sample taken from each pile.

The **Probe-A-Vac** uses a vacuum suction device to pull the cottonseed sample into a hollow tube, that is then emptied into a sealable container.

The container used for **Stream Sampling** is approximately 8˝x 5˝x 5.5˝ and is attached to a pole that passes through the falling stream of cottonseed.

Detailed, documented sampling procedures are followed by inspection staff, to assure that representative samples are delivered to State Agricultural Laboratory for testing. The Administrative Code Web site shown below contains the applicable Rule:

http://www.azsos.gov/public_services/Title_03/3-03.htm
Scroll to Rule R3-3-913.

The FDA has established the following aflatoxin action limits which are applied to cottonseed meal in Arizona.

- 20 ppb for humans, immature animals (including poultry) and all dairy animals.
- 100 ppb for breeding beef cattle, swine and mature poultry.
- 200 ppb for finishing swine (100 pounds and up).
- 300 ppb for feeder cattle.

ppb = parts per billion

Initially, the samples are delivered to the Chandler Analytical Laboratory where the cottonseed is run through a decordicator and ground to separate the hulls and meats. During the decordicating process a sub-sample is taken which is then sent to the State Agriculture Laboratory for analysis.

Upon receiving the cottonseed samples, the State Agricultural Laboratory completes the appropriate paperwork, ensuring that the Chain of Custody and seals are proper before logging the samples into the LIMS (Laboratory Information Management System). The samples are passed through a 20 micron sieve. Any cottonseed material not passing through the sieve is further ground to meet this size requirement. The ground material is then mixed to obtain uniformity before a 50g subsample

The samples are then extracted for 30 minutes with a mixture of acetone and water. The sample extracts then undergo a series of clean-up steps to further eliminate other chemicals inherent in the cottonseed that might interfere with the analysis of the aflatoxin content. Once purified, the sample extracts are evaporated in order to increase the concentration of the aflatoxins and improve the sensitivity and accuracy of the analysis.

Determination of the amount of aflatoxins present in the extract is done by a process called Thin Layer Chromatography (TLC). A very small volume of the sample extract is precisely spotted onto a glass plate covered with silica gel (aka TLC plate). On the same plate, known amounts of pure aflatoxins (called reference standards) are similarly spotted next to the sample extracts. The plate is then developed in a tank partially filled with solvent. The aflatoxins separate from other chemicals present in the sample as well as separating from each other on the TLC plate. There are four aflatoxins which are commonly detected in grain materials. They are Aflatoxin B1, B2, G1 and G2; however, for cottonseed grown in Arizona, typically only B1 and B2 are present.

Once the plate is developed and dried, the plate is examined in a cabinet using Ultraviolet (UV) light. One of the natural properties of the aflatoxins is their fluorescence when exposed to UV light. In essence, they glow in the dark when exposed to UV light. By visually comparing the amount of fluorescence of the aflatoxins in the sample extract and in the known reference standard, the level of aflatoxin in sample extract is calculated and mathematically converted to represent the amount of aflatoxin present in the original sample.

Any cottonseed that exceeds the FDA guidelines could be considered adulterated for feed purposes. The Department has the authority to penalize a feed manufacturer or dealer found distributing feed contaminated with aflatoxin. The penalties could be in an amount equal to twice the selling price of the feed, plus the consumer is entitled to a refund of the purchase price.

SECC Drawing winners

(middle) Tiffany Ground wins $5,000 check at SECC drawing, congratulations Tiffany!

Within the last month many prizes were given away to those who generously donated to the SECC (State Employees Charitable Campaign) fundraiser. Every person who donated was entered into a drawing, and the results from that drawing are in! There were 3 grand prizes: one 2 night stay at any Windmill suites, one 2 night stay in a cabin in a state park, and a gourmet food basket! The winners of these prizes were: James Service, Rudy Acevedo, and Janet Robins! Congratulations to them for winning these great prizes! SECC also awarded a number of different prizes including Polo shirts, a power drill, admission to the Phoenix Zoo, Botanical Gardens, Science Center and gift certificates to Outback Steakhouse, Albertsons, Home Depot, Hooters, Native New Yorker and many more! The total prizes donated were 81, valued at over $2,250!

Besides the grand prizes for this drawing, on January 8th, the SECC gave out two Visa prizes. One, valued at $5,000, was awarded to Tiffany Ground of ACT (see picture).

Again, thank you to all that donated, and congratulations to the winners of the fabulous prizes!

Did you know?

- In 2007 SECC raised over $2,3250,000 statewide; this is over half a million dollars more than was raised last year!

- SECC donates to over 600 charities; ranging from AIDS research and help, Alzheimers aid, abuse prevention, Arizona National Guard, organ transplant organizations, environmental preservation, food banks, handicapped services, children's education, and many more.

- SECC works in conjunction with "Help Working Poor" which was established by the State Legislature to provide low income working families with child care, medical care, food and clothing. This program also allows state employees to take up to $200 off of their taxes!

Southwest Ag Summit 2008

This year's Agriculture Summit is fast approaching; taking place from March 12-13th. The University of Arizona and Yuma Fresh Vegetable Association are hosting this event at the Yuma Convention Center to promote relationships between producers and their support industries. Speakers, exhibits and educational forums provide essential information about key factors that effect the agriculture industry- specifically, vegetable production in the Southwest .

One of the keynote speakers this year is going to be Hugh Grant (pictured), the Chairman, President, and CEO of Monsanto Agricultural Division. He will be sharing his perspective of the agriculture industry, and its future, in the United States. Continuing education credits will also be offered to those who pre-registered to attend breakout sessions. These are monitored by industry professionals, educators and researchers; and will be discussing current and emerging issues within production. Food Safety, Crop Production, Technology and Globalization going to be the main focus of these educational sessions.

There is also going to be a Pre-Summit Golf Tournament on March 12th. Lunch will be served at 11:30am at the Desert Hills Golf Course, the golf starting at 1:00pm. The fee to play is $90, but includes cart, green and lunch fees. Prize winners will be announced an awarded at the 13ths Reception Dinner.

If you are interested in registering to attend, hosting an exhibit (pictured right), or sponsoring the Southwest Ag Summit, please contact Jolynn Pangerl of the Yuma Fresh Vegetable Association at 928.783.9355, or visit www.swagsummit.org.

Livestock Theft Panel

(Second from Right) Raymon Christensen, ADA Animal Health and Welfare Officer, participates in the Utah Livestock Theft Panel

Raymon Christensen, Animal Health and Welfare Officer in the Animal Services Division, was recently asked by Utah State University to participate in a Livestock Theft Panel to discuss issues of livestock theft in the 21st century. The panel, put together by Utah State University in conjunction with the Utah Farm Bureau focused on providing training for the Utah Sheriffs Departments, Police Departments and Highway Patrol officers on how to handle livestock theft. This training prepared officers with knowledge of what questions to ask haulers of livestock once they are pulled over. Currently, the main focus of police and Sheriffs officers in Utah, as well as in Arizona, are tail and head light malfunctions– not suspecting an act of theft is in progress. Officers are not equipped to ask for documentation or identify brands; skills that are pivotal to identifying livestock theft.

The Livestock Theft Panel was established because farmers and ranchers in Utah have been having problems with their livestock "disappearing." During the panel, one rancher talked about how hundreds of his sheep had been stolen. The rancher noticed that hundreds of sheep out of his thousand head heard were missing, but all of his "marker" (abnormally colored to be easily identified) sheep were still in the herd. "If predators were claiming his sheep, some of his 'markers' would have also been missing" Raymon explained, "but since they were all present– the rancher knew his animals were being stolen."

Christensen was impressed with the level of cooperation between the Utah Department of Agriculture and Utah County Sherriff Offices, and hopes to bring that spirit of cooperation back to Arizona. Western states' Police and Sheriff Departments, like in Utah and Arizona, are not as concerned or knowledgeable with livestock issues as they once were. Cooperation between Departments of Agriculture and local law enforcement is essential to keep a strong, secure livestock industry in our state.

28th Annual Arizona Agriculture Day!

Bring the Family for a Fun Day Down on the Farm

Date: Saturday, March 8, 2008

Theme: *"Celebrating the Five C's of Arizona"*

Location: Schnepf Farm
24810 S. Rittenhouse Road
Queen Creek, AZ
(www.schnepffarms.com for directions)

Time: 9:00 am – 4:00 pm

Lunch 11:00 am – 1:30 pm *while supplies last*
$1.00 – Represents the farmer and ranchers share.
(BBQ beef or pork sandwich, hardboiled egg, coleslaw, beans, vegetables, fruit, milk, honey stick and cookies)

Admission: $2 per adult or 2 cans of food to benefit United Food Bank in Mesa. Children 12 and under are free.

Activities:
Livestock Displays
Produce Display
Hay Rides
Farm Equipment Displays
Agriculture Vendors
Agricultural Demonstrations
Entertainment and Contests

Arizona Ag Day Mission:

- To provide a forum to educate the public about the importance of Arizona's diverse agricultural industry in their daily lives
- To create an awareness of the importance of advancing technology in agriculture
- To create awareness of the economic impact of the agriculture industry
- To provide educational activities to increase agricultural literacy

To provide a venue for positive media exposure to the agriculture industry

Website: www.azagday.com

Welcome Aboard: New Hires

New Hire -
Danny Arce is a newly hired, but returning retiree, food inspector in the ASD division.

New Hire - Helen Garcia, Procurement Specialist, OOD

Hi my name is Helen Garcia, I was born and raised in Arizona. I have worked for the state of Arizona for eleven years and I am finally realizing that its not to bad of a place to work. I have worked for Procurement for the past five years and I really enjoy my job.

In my spare time, I like to spend time with my five year old son. We like going to movies, plays, and the water park (during the summer). I am very involved in my sons life, so we are always on the go. I am a very approachable person and like working with people, especially if I can help them solve a problem. I have had such a positive experience here in the department of agriculture and hope to be with this department many years. Thank you for all your support.

New Hire -
Fred Black is a returning retiree and is now an Agriculture Inspector in the PSD division.

New Hire-
Russell "Rusty" Van Leuven

The Agricultural Consultation and Training Program (ACT) would like to welcome Russell Van Leuven to their team. Russell has been appointed to a position as an Environmental Program Coordinator. The program is the implementation of agricultural best management practices for particulate matter (pm 10) generated from agricultural activities.

Russell comes to us from Plant Services Division where he was an agricultural inspector for 13 years. He began his career at Ehrenberg Port of Entry inspecting trucks entering the state. He has spent the last 12 years in the Phoenix district including his most recent position as a field supervisor. As an inspector he has been a member of the Horticultural Inspection Society – Western Chapter (WHIS) and has held both posts of president and vice president of the chapter.

Prior to working for the Department of Agriculture, he graduated from the University of Arizona with a Bachelor of Science Degree in Agricultural Economics.

Russell is married with 2 children, a 15 year old boy and 11 year old girl. He enjoys spending time with his family along with sports, fishing and hunting.

H.A.T.S. off to you!

HATS Winner and employee of the month for February is Ryan Gross, ESD. (pictured) Ryan was chosen because of his hard work in the MIS department on developing the AIRS Program and Livestock Lost and Found Website. He will receive a pair of Harkins Theatre movie tickets for his hard work. Congratulations, Ryan!

Other HATS winners for this month are: Ginger Hooker, PSD, Mark Van Kleeck, PSD and Jamie Legg, PSD.

If you would like to nominate one of your co-workers for the Hard Work, Attitude, and Teamwork with a Smile, please fill out the nomination form below.

H.A.T.S. Off To You!

Hard work, Attitude and Teamwork with a Smile

Person being nominated
Name:
Title:
Location:

Person submitting the nomination
Name:
Title:
Location:
Reason for Submission

Date
** Once you have filled this form out, please send it to the person you are nominating, that persons supervisor, and the Employee Recognition Committee.**

January Birthdays

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	**2** Dianne Chidlaw	**3** Humberto Cerezo Jr. Jaime Meza	**4** Paul Nicodem Terry Schultz	**5**
6	**7** Carlos Ramirez	**8** K.C. Downing Francisco Sanchez	**9**	**10** Casey Jones	**11** Brian McGrew	**12** Betty Sanchez Dwaine Townsend
13 Ernesto Corella	**14** Iliana Ley	**15** James Ludvigson	**16**	**17** Yolanda Pereda Gary Rochester Matthew Tillery	**18** Cathy Shelton	**19** David Pineda
20 Dominique Ramirez	**21** Beth Mania Monica Tanori	**22**	**23** Delia Rodriguez	**24** Ginger Hooker	**25** Roberta Bartmus Sandra Hanks	**26** Jose Pujol
27 Teressa Lopez	**28**	**29** Anna Jennes-Wells	**30** Cheri Ware	**31**		

February Birthdays

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	**2**
3 Philip Blair	**4** William Gill Jeffrey Orr	**5** Edward Velasco Brady Weaver	**6** John Caravetta	**7** Darlene Jaramillo	**8**	**9** Jose Lopez
10 Sharon Barringer Linda Gonzalez Miguel Pacheco	**11**	**12** Sandy McCally	**13**	**14** 	**15**	**16** Susie Ryan
17	**18** Lonnie Quinonez	**19** Dart Easterday Hilary O'Bert	**20** Raymon Christenson	**21**	**22** Louise Houseworth	**23** Perry Durham
24 Karol Brill Rodolfo Cubillas Jim Meggs	**25** Donna Deleree	**26**	**27** Diane Parker	**28**	**29**	