



Texas Rice

Texas A&M University System Agricultural
Research and Extension Center
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Iraqi Grain Board Representatives to Visit Beaumont

As a result of recent meetings in Amman, Jordan the Iraqi Grain Board will be visiting the U.S. rice industry this May in an effort to re-establish trade relations interrupted by fourteen years of war and embargoes.

If their schedule allows, the Texas A&M Research and Extension Center in Beaumont will host a tour for the delegation, highlighting current rice research efforts.

Jim Willis, President of International Programs for the US Rice Producers Association attended the meetings in Jordan last month where discussions focused on the Iraqi interest in high quality long grain rice from the United States. Their visit will be sponsored by the Foreign Agricultural Service of the U.S. Department of Agriculture with cooperation from the US Rice Producers Association, the USA Rice Federation and the U.S. Wheat Associates, who also participated in the Amman meetings. The Iraqi Trade Team plans to visit Washington D.C., Houston, Beaumont, and Arkansas to discuss and observe all aspects of the rice industry. The team will then head on to Kansas for a wheat industry seminar.



Jim Willis (center) meets in Amman, Jordan with Director General of the Iraqi Grain Board Mr. Nazar Khidhir Mohammed (left), and Director General, Foreign Economic Relations, Ministry of Trade Mr. Ahmed F.J. Al-Mukhtar (right).

Chris Williams, Chairman of the Board for the US Rice Producers Association and a rice farmer from Poplar Bluff, Missouri is hopeful that the U.S. rice industry can recuperate what was once a very lucrative export market.

“Prior to 1990, Iraq was one of the most important markets for U.S. long grain rice, averaging 370,000 metric tons per year during the 1980’s, and peaking at 513,000 metric tons in 1987,” stated Williams.

“The re-establishment of the Iraqi market has been a high priority for the US Rice Producers Association for a number of years and they look forward to working with the Iraqi Grain Board, the Foreign Agricultural Service and the Rice Millers’ Association, in a cooperative effort that will develop into

long term sales for years to come,” concluded Williams.

Mr. Willis, who has managed international marketing programs for over 20 years and spent considerable time in Iraq before 1990, is hopeful the U.S. can develop programs that will best serve the market. “Prior to the embargo, we supplied the bulk of Iraq’s rice import needs, 100 percent in some years, by giving them a superior product, on time, by securing GSM-102 financing and

by providing a multitude of promotional programs. To recapture this market, these programs must be reactivated. The visit by the Iraqi Grain Board to the U.S. rice industry, after all of these years, is an important step forward in the process,” according to Willis.

Regarding the GSM Credit Program, USA Rice Federation staff and members met with Secretary of Agriculture Ann Veneman and other high-ranking USDA officials to push for reauthorization of the GSM credit program for Iraq.

Members of the USA Rice trade mission to Amman summarized these high-level meetings with the Iraqi Grain Board and Ministry of Trade officials. “The Iraqis commented that there were sufficient

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From the Editor...



Welcome to the April 2004 issue of *Texas Rice*. Our cover story focuses on a visit by Iraqi Grain Board representatives to the U.S. The purpose of the visit is to reestablish trade relations between our two countries. Prior to the first Gulf War, Iraq was a major importer of long grain rice from the U.S., reaching a peak of 513,000 metric tons in 1987. This much rice is certainly nothing to laugh about, equaling about 160,000 acres worth of Texas rice production.

Imports of U.S. rice were shut off by the war at a major cost to U.S. rice producers. Let's hope Iraq becomes a strong and vibrant democratic country that will view the U.S. as a valuable trade partner.

This issue of *Texas Rice* includes an article on six insects that have recently been found in Texas rice fields. Summers that have limited rainfall during prolonged periods often experience incidences of unusual insect activity. The low rainfall results in normal weed hosts drying up and the insects packing up and taking off in search of better food.

Four of the new insects were aphid species that normally do not feed on rice. Aphids are interesting insects. Many have a unique physiology that allows their populations to literally explode. As a result, a field scout may only see a few aphids early in a week, and may see what seems like hundreds if not thousands of aphids by the end of the same week.

One feature that allows aphids to rapidly increase is their near-lack of male offspring. Yep! Aphids often do not need males to reproduce. This eliminates time spent finding a "partner" and convincing the partner to mate. This also means that a female's entire reproductive energy goes into producing females, which effectively doubles the rate at which a female population can increase each generation compared to a population that produces half females and half males. With a dozen or more generations each year, this gives female aphid populations a huge numerical advantage.

Instead of producing egg, which takes time to hatch and begin growth, miniature aphids called nymphs are usually produced. This speeds up the generation time, with the nymphs maturing very rapidly and in a mat-

ter of a few days beginning to produce their own young.

For many aphid species, they are pregnant at birth. At the time a "baby" female aphid is born, she is already far along in developing her own baby aphids. If you look at a female aphid under a powerful microscope, you can often see a baby aphid inside of her, with the baby having a nearly fully formed baby inside of her. Can you imagine being a grandmother within a day after you have birthed your first young?

Males are not totally left out of the aphid world, although some species are not known to produce males. When male aphids are produced, this usually occurs late in the season, often under crowded conditions, when the quality of the host plants rapidly decrease, or when temperatures are beginning to drop and fall is rapidly approaching.

The late season aphids often have wings. This allows the males to disperse to other plants to search for females to mate with. Many scientists argue that males are important to aphid species because they allow for genes to be exchanged and genetic diversity to be maintained. Once a female is mated, her wings allow her to find relatively safe places to either overwinter or lay eggs, depending on the species. If eggs are produced, they usually do not hatch until the following spring, just after the time when plants begin to grow. Thank goodness aphids are rarely a problem in rice!

Keep on helping to make *Texas Rice* a success by sending suggestions to lt-wilson@aesrg.tamu.edu.

Sincerely,

A handwritten signature in black ink that reads "L. T. Wilson".

L.T. Wilson

Professor and Center Director
Jack. B. Wendt Endowed Chair
in Rice Research

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Farming Rice

a monthly guide for Texas growers

Providing useful and timely information to Texas rice growers, so that they may increase productivity and profitability on their farms.

Insect Newcomers Invade Texas Rice Fields

As if our farmers don't have enough to worry about with the standard package of rice insect pests, Beaumont Center Entomologist Dr. Mo Way found some relative newcomers in 2003 that had not previously been identified in Texas rice fields. While the reports were mostly localized, farmers are encouraged to keep a vigilant watch throughout the rice belt. The newcomers include three species of aphids, rice whorl maggot, sorghum webworm and thrips.

In general, aphids are a threat to seedling rice, when even low levels of feeding can stunt growth and get the plants off to a bad start. Aphids feed with sucking mouthparts and may cause a golden yellow streaking or an overall yellow appearance of the leaf. Occasionally, heavy populations cause the leaf to curl. Badly damaged leaves generally senesce, robbing the plants of carbohydrates produced through photosynthesis. Some aphid species cause additional damage to plants due to a toxin that is secreted in their saliva or by transmitting viruses, although in Texas, viruses in rice are generally not a problem.

Field populations of aphids are all females that give birth to live young that mature in a few days and can reproduce shortly after maturing. In this way, populations of many aphids can double in only a few days, so farmers need to scout their fields early and identify infestations before they get out of hand.

Bad infestations often occur when beneficial insects are wiped out by chemical applications targeting other pests. For example, a farmer may apply Karate for fall armyworms, and then see an aphid outbreak right behind it. That's because aphid populations

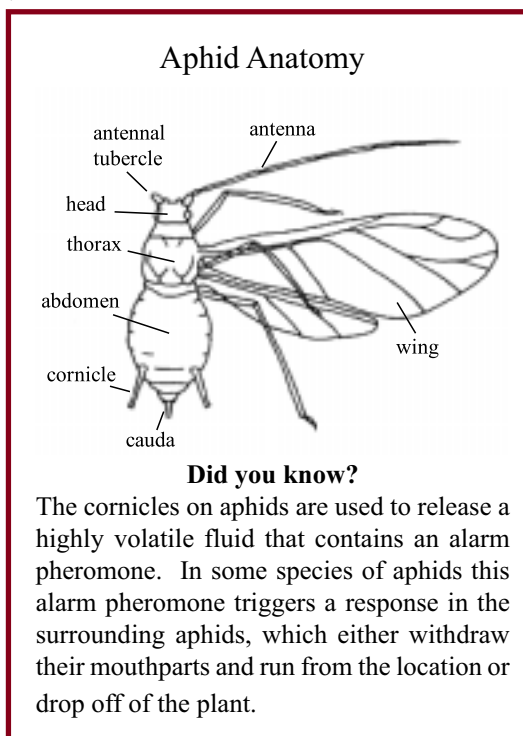
can build quickly in the absence of natural enemies and those that move into the field later cannot keep them in check. Also, cool temperatures

sometimes limit the effectiveness of beneficials that can suppress early-season populations of aphids.

There are several insect species that feed on, or parasitize, aphids. The larva and adult stages of the green lacewing and the ladybeetle both eat aphids, as does the minute pirate bug and larvae of syrphids (hover flies). The presence of aphid "mummies", swollen, copper or tan colored aphids, reveals the activity of parasitic wasps. In addition, a fungal disease can often keep aphid populations in check. It is important for farmers to recognize the predators and the appearance of parasitized aphids, so they can make informed decisions about the need for chemical applications.

Photo courtesy of David Voegtlin, Illinois Natural History Survey.

A yellow sugarcane aphid giving birth to live young.



of parasitized aphids, so they can make informed decisions about the need for chemical applications.

In some of the literature on aphids, it has been suggested that clearing field margins of weeds that serve as an overwintering home for aphids will help reduce field populations. Aphid expert Dr. David Voegtlin with the Illinois Natural History Survey is skeptical about this advice. In his experience, aphids that end up in a field come from some greater distance than the edge of the field. "When winged aphids develop on a plant they usually fly for an ex-

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Insects continued...

tended period of time, let's say at least an hour or more," explains Voegtlin, "the aphids that arrive in a specific field, sit on plants and begin reproducing have been flying for a similar period of time."

Bird cherry-oat aphid, (*Rhopalosiphum padi*) is the most common aphid found on cereals, and is now well established throughout the

Texas rice belt. Its color ranges from orange green to olive green to dark olive green, and sometimes greenish black. It has long antennae and long tube-shaped cornicles ("tail pipes" that protrude from the rear of the abdomen.) Wingless forms frequently have a reddish orange patch around the base of the cornicles.

These aphids may be found any time after seedling emergence and are most common in March and April. The bird cherry-oat aphid is most easily confused with the corn leaf aphid, but the former has a rounded, bulblike pear shaped body, while the corn leaf aphid has the shape of an elongated oval.

Bird cherry-oat aphid attacks all small grains including wheat, barley, oats, rye, rice and triticale. It may also be found on sorghum and corn. Heavy populations may cause a golden yellow streaking on the leaves, and it is one of the major vectors of barley yellow dwarf virus (BYDV).

Populations of this insect are usually kept under control by a combination of predators and parasites. Before considering chemical controls, evaluate the activity and control potential of these natural enemies. A timely flush or flood can also reduce or eliminate aphid



Photo by Jack Kelly Clark, University of California Statewide IPM Project.

Adult bird cherry-oat aphids with a single nymph. The distinctive reddish orange patch is clearly visible near the base of the cornicles.

populations. Economic thresholds for bird cherry-oat aphid are not well established.

Rice Root Aphid, (*Rhopalosiphum rufiabdominalis*) is similar in appearance to the bird cherry-oat aphid, and was identified in Brazoria County in 2003. Adults and nymphs suck the plant to remove fluids, but unlike other species, do not generally feed on the leaves. Most of their activity is at the plant crown and just below the soil surface, which makes them more difficult to find.

They are mostly a problem in upland rice, but can also cause damage in irrigated fields before permanent flood is established. Severe infestations cause the plant to yellow and become stunted. As with all aphid species, the presence of ants is a tell-tale marker of heavy infestations, as the ants feed off the aphid excrement (called honeydew) and may even transport the insect from plant to plant, and protect the growing aphids from predators and parasites.

The globular nymphs are tan or brown to greenish yellow and adults are generally burnt orange to brown with hairy antennae. Besides the parasites mentioned above, root aphids are also preyed upon by mermithid nematodes.



Photo courtesy of RiceScience.

Rice root aphid adult and nymph.

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(Left) Aphid 'mummies' that have been parasitized by a beneficial wasp. (Center) Parasitic wasp laying an egg on an aphid nymph. (Right) Adult aphid infected with a fungus. Photos courtesy of University of California Statewide IPM Project.

Insects continued...

Yellow Sugarcane Aphid, (*Sipha flava*), feeds exclusively on grasses - including sorghum, sugarcane, wheat, barley, rice johnsongrass, and dallisgrass. According to Dr. Way, infestations were found on newly emerged rice in Wharton County in 2003.

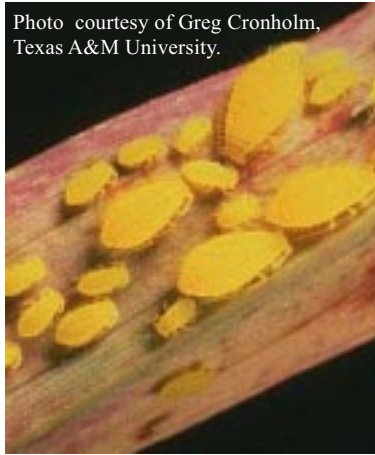
The adult is usually lemon yellow but under some conditions may be pale green. It's covered with short, black spines, and has two double rows of dark spots on its back, with very short cornicles.

Winged and wingless forms live in the colony. Without mating, females give birth to living young for up to 28 days. Each female produces an average of two nymphs per day. Nymphs mature in 3 to 18 days, depending on the time of year. Development is temperature dependent, so in the cooler months maturation time would take much longer than in the warmer months.

These aphids, like greenbugs, secrete a toxin into the plant with their saliva, so plants suffer double damage from their feeding. They generally feed on the underside of lower leaves, causing purple-colored leaves on seedling plants and yellow leaves on more mature plants. Plants not killed are severely stunted, and maturity of even slightly damaged plants is delayed. By the time discoloration symptoms are visible, plants will have a significant amount of injury.

Rice Whorl Maggot, (*Hydrellia philippina*), was identified last year in Jefferson and Calhoun Counties. It is semi-aquatic and feeds on the central whorl

Photo courtesy of Greg Cronholm, Texas A&M University.



Yellow sugarcane aphids also feed on rice and sorghum.

leaf of the vegetative stage of the rice plant. It also prefers ponds, streams and lakes, or places with abundant calm water and lush

vegetation. Development is favored by standing water in paddies during the off-season, coupled with the presence of host plants such as signalgrass, bermudagrass, barnyardgrass, cutgrass, sprangletop and panicum.

The adult is active during the day and rests on rice leaves near the water. It can float on the water or perch on floating vegetation. At midday, it is sedentary or it clings to upright vegetation.

Maggots feed on the unopened central leaves, where larval development is completed in 10-12 days. The full-grown maggots pupate outside the feeding stalk. The adult fly is grey with transparent wings, and has yellow coloring on the lower part of the legs. The males are usually smaller than the females, which are .06 to 0.1 inch long. The egg is whitish, elongate, and banana-shaped with a hard shell covering, and the larvae are legless. Early

Photo courtesy of Texas A&M University Department of Entomology.



Sorghum webworm, with the hollowed out kernel that is typical of their feeding habits.

larval stages are transparent to light cream, whereas the mature larva is yellowish and cylindrical with a pair of pointed spiracles at the posterior end. The pupa is dark brown, subcylindrical, and the posterior end is tapering with two terminal respiratory spines.

To positively identify rice whorl maggot infestations, rice plants can be

visually examined for distorted leaves, small clear or yellow spots, transparent streaks and pinholes. Affected plants have fewer tillers and are often stunted.

Sorghum Webworm, (*Celama sorghiella*), was found on rice in Calhoun County in 2003. The adult webworm is a small (0.5 inch) white moth, which lays eggs at night on hosts such as sorghum, sudan grass, johnsongrass, broom corn, rice and rye. The egg is round to oval and slightly flattened. It is white with a pale green-yellow tinge when laid, but changes to straw yellow over a 2-day period. As it matures, the color darkens to deep yellow or brown, and it hatches in about

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Photo courtesy of K.E. Mueller, International Rice Research Institute.



Rice whorl maggots are difficult to spot because they feed on unopened leaves.

Insects continued...

5 days. The newly hatched larva is a pale green caterpillar about .03 inch in length. Later instars, still green to tan in color, are thickly covered with spines and hairs, bear four red-to-brown longitudinal stripes on their back and have four pairs of fleshy prolegs. The caterpillar is sluggish and has a maximum length of .04 to 0.6 inch.

The sorghum webworm is a major pest of grain sorghum in Central and North America. In North America, the range of the sorghum webworm extends north to Illinois and south to Panama and Puerto Rico. It is most damaging in areas where the annual precipitation averages 30 inches or more.

On sorghum and rice, the caterpillars feed only on the ripening grain, consuming the contents of individual kernels and leaving the outside hull intact. Webworms spin cocoons and overwinter in the larval stage behind the leaves of the plant stalk sheath. The overwintering caterpillars begin to pupate when mean daily temperatures reach 57° to 59° F. The pupal period may last 5 to 9 days. The adults are nocturnal and live 10 to 20 days, during which time the females deposit an average of 88 eggs, singly, on protected areas of the flowering parts or seeds of the host plant. The population grows slowly up to the middle of the season, after which these insects increase rapidly. Development from the egg stage to the emergence of adult moths takes 24 days.



(Top) Minute pirate bugs feed by inserting their proboscis in the insect and sucking out the juices. Not so glamorous but highly effective. (Bottom) Thrips feed by piercing the individual cells and eating the contents. The minute pirate bug is a voracious predator that feeds on thrips. *Photos courtesy of UC Statewide IPM Project.*



Cultural control practices include the destruction of crop residues to destroy overwintering larvae, and early planting to escape the late-season buildup in webworm populations. Warm, dry weather also effectively deters damaging infestations.

Thrips were identified in Jefferson County last year on young rice plants not quite at the tillering stage. Adults have four featherlike wings, with fine hairs on the front and hind edges. There are three color forms that vary in abundance depending on the time of year. There is a pale form that is white and yellow, except for slight brown spots or blemishes on the top of the abdomen; an intermediate color form with a dark orange thorax and brown abdomen; and a dark form that is dark brown. The intermediate form is present throughout

the year, but in spring the dark form predominates while the pale form is most abundant at other times throughout the year. The dark form is an overwintering biotype. The pre-pupa and pupal stages take place in the soil beneath infested plants. Females will lay male eggs if unmated and female eggs if mated. Development times to complete one generation varies from 11 days (77° to 87°F), to 44 days (50° to 60°F).

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The green lacewing is an excellent predator of aphids, whiteflies and other soft bodied pests. (Left) Single egg on a delicate thread, usually found on the underside of leaves. (Center) Larva, commonly called the 'aphid lion', feeding on an aphid nymph. (Right) Lacewing adult, which also feed on aphids but also pollen grains. *Photos courtesy of UC Statewide IPM Project.*

Insects continued...

Photo courtesy of
University of California
Statewide IPM Project.



Pupa stage of the Ladybeetle, feeding on aphid nymphs.

Thrips are tiny insects, (.04 inches) that feed by piercing and removing the contents of individual plant cells. They usually feed in enclosed tissues such as flowers, flower buds, or growing tips but sometimes on new vegetative growth. Adults also feed on pollen and spider mites. Direct feeding damage includes streaking, spotting, and tissue distortion. On leaves, feeding often occurs along veins and appears as an outlining of the veins. The stippling damage caused by thrips feeding on individual cells is often confused with mite stippling. However, thrips feeding is often accompanied by black, varnish like flecks of dried excrement whereas mite stippling is often accompanied by webbing or shed skins. Some species of thrips can vector Tomato Spotted Wilt virus as well as many other viruses.

Predators that help control thrips are the minute pirate bug, *Orius tristicolor*, and two predatory mites, *Neoseiulus cucumeris* and *Hypoaspis miles*. Minute pirate bugs are polyphagous, and will also feed on aphids, mites, and small caterpillars.

Blue sticky cards are most attractive to thrips. However, yellow and white cards are good predictors of thrips populations, and the lighter color makes for easier counts. Place yellow sticky cards vertically in the crop canopy, with the lower one-third of the trap in the leaves and the upper two-thirds above the leaves. As the crop grows, the traps will need to be raised.

The bottom line for farmers is to be diligent in scouting fields early and often. Look for signs of beneficial activity before deciding to spray, and follow up applications to insure that insect populations are under control. If any of these 'newcomers', or others not mentioned here, show up in your field, please contact Dr. Mo Way at 409-752-2741 ext. 2231.*

Thanks to Drs Mo Way and David Voegtlin for their assistance in reviewing this article.

TRRF Funded Projects for 2004

<u>Varietal Improvement and Evaluation</u>		
\$46,906	McClung, Tabien	Development of Improved Rice Cultivars
\$37,580	McClung, Tabien	Winter Nursery Facilities for Development of Improved Cultivars
\$84,547	Tabien	Development of High Yielding Rice Varieties for Texas
\$34,500	Park, Wilson, Chandler	Direct Manipulation of Yield Determinants and Herbicide Tolerance in Rice
\$46,000	Turner	Evaluating University & Private Industry Varieties for Production in Texas
<u>Disease Management</u>		
\$10,210	Krausz	Management of Bacterial Panicle Blight
<u>Plant Physiology</u>		
\$35,000	Tarpley	Ratoon Crop Management
<u>Water and Weed Management</u>		
\$75,000	McCauley, Chandler	Water Management and Weed Research in Rice
<u>Entomological Management</u>		
\$54,551	Way	Entomology Research & Extension Program
<u>Communication and Educational Outreach</u>		
\$11,535	Cockrell	Communications, Press and Public Outreach
\$6,075	Fritz	Educational Publications for Texas Rice Producers
\$16,000	Stansel	2004 Texas Rice Crop Survey
<u>Personnel</u>		
\$60,000	Eagle Lake	Technician Positions
<u>Equipment and Improvements</u>		
\$107,482	Eagle Lake and Beaumont	

Total amount of research funding provided through farmer check-off contributions is \$625,386.

Rice Leadership Development Class Visits Beaumont



The 2004 Rice Leadership Development Class enjoyed fresh, farm-raised crawfish at Doguet's Crawfish Farm as part of their first session, which began in Houston, and finished up with farm tours in Southern Louisiana.

The 2004 Rice Leadership Development Class visited Beaumont in late March to tour Doguet's Rice Mill and Crawfish Farm as part of their week-long intense itinerary during Session I. Afterwards they were treated to a first class crawfish boil hosted by Mike and Lisa Doguet, with a chance to network with area farmers, extension personnel and researchers.

The Rice Leadership Development Program is a project of the Rice Foundation, and is sponsored by Syngenta Crop Protection and John Deere Company. The two-year program is designed to educate, enlighten and inspire its participants, which include 5 rice farmers and 2 industry representatives.

The Rice Foundation receives 25 – 30 applications each year, which are reviewed by a Selection Committee whose members represent all aspects of the rice industry. The Committee ranks the applications, and the top 12 are invited to the USA Rice Outlook Conference for personal interviews. After this process is completed, 7 applicants are chosen to participate in the leadership program.

The 2004 class consists of rice farmers Marvin Cochran (MS), Frank Henderson (AR), Heath Long (AR), Michael Skalicky (TX), and Ryan Tabb (MS). Industry representatives are Christopher Cota (CA) and Brian Ottis (AR).

According to Chuck Wilson, Director of Grower Relations for the USA Rice Federation, the program has been very successful in training industry leaders.

Iraqi Visit continued...

funds available to make food purchases through December but they appreciated the effort, because the program could be needed as soon as January 2005.”

“GSM export credit guarantees were critical to our high level of rice exports to Iraq in the late 1980's and will be an important part of future efforts to regain this former number one market,” said Betsy Ward, USA Rice Vice President, International and Domestic Promotion. In the USDA meetings, USA Rice officials received assurance that the program would be available when needed.

USDA Under Secretary for Farm and Foreign Agriculture Services, J.B. Penn, reiterated this point in Congressional hearings last week. Ben Noble, USA Rice Vice President, Government Affairs, said, “The key to re-establishing the GSM program, is for the U.S. government to forgive the current Iraqi debt on the books. USA Rice has offered to lead a coalition of agriculture groups to generate sufficient Congressional support to make this happen.” *

For more information contact Jim Willis, USRPA, at 713-974-7423 or Stuart Proctor, USA Rice Federation, at 703-236-2300.

Alternative Crop Report on the Web

Beaumont Center Entomologist Dr. Mo Way has released his *2003 Alternative Crop Report*. For soybeans, the report details research concerning the management of stinkbugs using maturity group selection and planting date, as well as the evaluation of selected insecticides to control leaf-chewing insects. Also included is an evaluation of sugarcane varieties with regard to sugar content. Download the pdf at <http://beaumont.tamu.edu/eLibrary>

“People come out of this program with a much broader understanding of all aspects of the rice industry,” said Wilson. “They learn more about the research involved in developing new varieties, farming practices as they vary between states, marketing strategies, the role of rice brokers in international trade, and perhaps most important, policy decisions crafted in Washington that effect every grower in every state.”

Among the elite group of alumni from this program are Texas rice producers Mike Doguet, Linda Raun, Andy Anderson, Laurance Armour III, Danny Gertson, Jason Hlavinka and Terry Hlavinka. Also included are Texas House Representatives Robby Cook and Glenn Hegar, who both produce rice on their family farms. *

Extension in the News...

New Agents in the Rice Belt

County agents serve on the 'front lines' of Texas Cooperative Extension, working directly with farmers and ranchers to help them get the most out of their resources. They are the main conduits that move information from Experiment Station and university researchers to clients in the field. In 2003, 4 new agents came on board to serve the Texas rice belt.

Cody Dennison, Waller CEA-Ag/NR: Cody came to Waller County in November of 2003 after serving as the 4-H agent in Fayette County for 3-1/2 years. It was a homecoming for Cody, as he graduated from Waller High School in 1994. He attended Clarendon Junior College near Amarillo for 2 years, before transferring to Texas A&M where he acquired a BS in Food Science. During college he participated in many livestock and meat judging contests, a skill he shared with the children in his 4-H groups. He still has some responsibilities working with the youth on livestock judging and animal projects. Cody said the most rewarding feeling is to see that light bulb go on above their head when they grasp an idea or concept. Replacing David McGregor, who had been the CEA in Waller County for 28 years, is a tremendous challenge. But Cody's grandfather and father both farmed rice, so he knows a few farmers and is looking forward to meeting more. He realizes that there is a lot to learn, and he is counting on the farmers to help make the transition smooth.

Dale Rankin, Colorado CEA-Ag/NR: Dale moved to Colorado County in January, after serving 2-1/2 years as the 4H agent in Hidalgo County. He grew up in Poteet, TX just south of San Antonio where his family operated a farm and ranching operation. While in school, Dale participated in 4-H and FFA raising steers and market heifers. He also competed in shooting sports, and traveled to state competitions on several occasions. From an early age, Dale knew he wanted to pursue a career in agriculture. After high school, he attended Texas A&M – Kingsville, where he acquired his BS and MS in Agricultural Education. In the short time he has been in Colorado County, Dale has already met with many of the area farmers, including his Rice Committee members, who help plan the annual Field Day at the Eagle Lake Research Station. According to Dale, a favorite thing about his new position is meeting and interacting with the producers. He is also looking forward to conducting research

on area farms in an effort to improve production practices for Colorado County farmers.

Chris Schneider, Jackson CEA-Ag/NR: Although Chris came to Jackson County in June of 2003, his involvement with Extension dates back to the late '90s, when he served as an intern in the Brazos County Extension office while working toward his BS in Animal Science from Texas A&M. He went on to acquire his MS in Agricultural Education from Texas Tech in 2001 and served as the Ag/4-H agent in Matagorda County for two years. Chris grew up in Cypress, TX, northwest of Houston. His family had a weekend ranching operation in Giddings, and Chris worked for a local veterinarian while still in high school. When Chris came to the Jackson County office, he was the only agent for several months, as two positions were open at the time. Shortly after the positions were filled, and Chris began settling in to his new responsibilities, the offices caught on fire and were damaged by smoke and water. Still, Chris has made excellent progress in his position so far. His first County Rice Clinic was a great success, with just under 50 farmers in attendance.

Charles Wakefield, Chambers CEA-Ag/NR: Unlike most county agents, Charles came in to his position on a first name basis with many of his producers. A native of Liberty County, Charles graduated from Hardin High School, before going on to San Angelo State for his BS in Animal Science. He then completed his MS in Ag Education/Animal Science in a joint degree program with San Angelo State and Tarelton. After college, Charles was the Ag teacher at Vidor High School for 2 years, but he really wanted to work for Extension. In December of 2003, he got his wish, and came to Chambers County as the new CEA. Charles said rice farming and bird hunting are the major activities in Chambers County, although there is a growing interest in sugarcane as well. Charles is settling in well at his new job, and particularly enjoys helping the producers and the people in the community solve their farming and gardening problems. He also enjoys helping the youth in the county and is awaiting the Youth Project Show in May. *

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Preliminary Census Results Give First Look at Changing Face of Agriculture

The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) has announced the availability of preliminary state and national demographic data from the 2002 Census of Agriculture, the nation's largest agricultural information-gathering project.

"The 2002 Census of Agriculture serves as the most comprehensive source of data describing U.S. agriculture. The results show the great diversity of people involved in this important segment of our economy," said Agriculture Secretary Ann M. Veneman. "For the first time, the census will provide us with measures of the total number of people operating farms and ranches, as well as the number of households sharing in farm income."

Veneman said the new 2002 Census results show African American, American Indian, Hispanic and women operators are all significant contributors to agriculture, and their numbers have all increased since 1997. The data includes the first ever comprehensive measure of the number of women involved in day-to-day farming and ranching decisions. Measures for each of these groups are also available for each state.

"This Census incorporates collection of new data and improved methodologies to enable us to present the most complete and accurate picture of U.S. agriculture available," said NASS Administrator Ron Bosecker.

Several new measures were included in the 2002 Census of Agriculture, including information about more than one operator per farm. Complete data for Puerto Rico are also available.

Demographic data contained in the report include gender of operator, residence on or off the farm, days

worked off farm, years present on farm, age group categories, race and number of persons living in each

household. Preliminary results show:

- The average age of American agricultural producers in 2002 was 55.3 years-old.
- 27.2 percent of agricultural producers were women in 2002; the number of women who were principal operators increased 12.6 percent from 1997.
- Principal operators of Spanish, Hispanic, or Latino origin increased by 50.8 percent from 1997 to 2002.
- Black principal operators increased by 8.8 percent and American Indian principal operators increased by 19.4 percent from 1997 to 2002.
- Ninety percent of America's agricultural operations are still run by individuals or families, and most are still small farms. In fact, the majority of operations (59%) had less than \$10,000 in sales of agricultural products in 2002.

Final 2002 Census of Agriculture data at the national, state and county levels

will be released on June 3, 2004. That report will provide first time facts about organic crop acreage and sales, production contracts, farm computer and internet use, plus the broader, full range of traditional census data including land use and ownership; acres irrigated; crop acreage and quantities harvested; livestock and poultry inventories; value of products sold; value of production contracts; participation in Federal farm programs; and, market value of land and buildings.

The census of agriculture is currently conducted every five years; the first was conducted in conjunction with the 1840 population census.

All reports from the 2002 Census of Agriculture will be available free through the NASS website. To subscribe to NASS *e-announcements* about the census and other NASS products and programs, go to www.usda.gov/nass/, click on 'News and Coming Events' then click on 'Subscribe to News Releases and Announcements'. For additional information regarding the Census, call the NASS Hotline at 1-800-727-9540. *



According to the 2002 Census of Agriculture, women operators make a significant contribution to agricultural production, and their numbers have increased since the 1997 Census. Pictured here is Nancy Garrett, who farms rice with her husband, Jacko, in Danbury, TX.

State, National and International News...

EARLY AERIAL APPLICATION OF CLINCHER NEW OPTION

MEMPHIS, Tenn. - Rice growers who rely on an early season aerial application for control of annual grasses have a new option for the 2004 season. Clincher SF herbicide can be tank mixed with residual grass herbicides such as Facet or Prowl for control of one to three-leaf annual grasses that compete with young rice.

Clincher SF, a postemergence grass herbicide containing the active ingredient cyhalofop-butyl, controls a wide spectrum of annual and seedling perennial grasses, such as barnyardgrass (including propanil- and quinclorac-resistant biotypes), sprangletop, broadleaf signalgrass, knotgrass and fall panicum.

“Best results from a tank mix of Clincher and residual herbicides will come from aerial application within the first seven to 21 days after planting, depending on soil moisture and environmental conditions,” said Larry Walton, customer agronomist for Dow AgroSciences. “The key is to make sure the annual grass weeds are no larger than the three-leaf stage. “It’s also important to remember that although Clincher is effective against the target grasses, it has no pre-emergence activity,” said Walton. “Any residual weed control will be provided by the tank mix partner.”

For optimum results, use Clincher SF herbicide at a rate of 10 to 13.5 ounces per acre in the tank mix, along with the recommended rate of the residual herbicide. Add 1 quart per acre of crop oil concentrate with the tank mix.

Spray volume should be no less than 10 gallons of water per acre.

“Thorough coverage, good soil moisture and actively growing grass weeds are the keys to success with this application,” Walton said. “The higher spray volume is necessary to obtain proper coverage of the young grass weeds. And the fields should be muddy, either partially or fully drained at application following at least a half-inch of rain or an irrigation flush. “Ground equipment should not be used for this application. The rule of thumb is that the field should be too wet for a ground rig or to walk through.”

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USDA ANNOUNCES BORLAUG FELLOWS PROGRAM

WASHINGTON - Agriculture Secretary Ann M. Veneman today launched the Norman E. Borlaug International Science and Technology Fellows Program to support technological progress in the developing world.

“This program will honor Dr. Borlaug by promoting the transfer and adoption of new technologies to improve global food availability,” Veneman said during the program’s inaugural event at USDA’s Administration Building.

The Borlaug program will be targeted to developing countries, offering short-term scientific training in the United States and supporting the exchange of researchers, policymakers and university faculty. Participants will be placed at land grant and 1890s colleges and universities, USDA and other government agencies, inter-

national research centers and other nonprofit institutions and private companies.

In his speech at the Ministerial Conference on Agricultural Science and Technology, hosted by Veneman in Sacramento, Calif., last summer, Borlaug challenged government leaders to commit to efforts to accelerate the transfer of agricultural and food technologies to the developing world.

“The Department of Agriculture is responding to Dr. Borlaug’s challenge and shares his commitment,” Veneman said. “This new program is the latest of several initiatives to build on the momentum from that conference.”

Veneman recognized Borlaug, who recently turned 90, for his groundbreaking achievements and life-long commitment to raising agricultural productivity.

Often hailed as the father of the Green Revolution, Borlaug won the Nobel Peace Prize in 1970 for his success in developing high-yielding dwarf wheat varieties and reversing severe food shortages that haunted India and Pakistan in the 1960s.

The Borlaug program will be open to participants worldwide but will focus on African, South American and Asian nations. Current plans are to place about 100 fellows from developing countries in the program. The program will be administered by USDA’s Foreign Agricultural Service in cooperation with the U.S. Agency for International Development, the U.S. Department of State and Texas A&M University, where Borlaug is professor emeritus.

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Rice Essay Contest

The US Rice Producers Association (USRPA) is sponsoring an essay contest for students in 4th through 7th grades in the rice growing states of Arkansas, California, Louisiana, Mississippi, Missouri and Texas. This contest is designed to focus attention on, and drive students and teachers to, the USRPA educational web site <http://www.RiceRomp.com>.

Each entrant will write a 500 to 800 word essay about the subject: "Rice Farming - Earth's Friend: How rice farming benefits our air, our land, our water and our wildlife."

One student winner from each grade will receive \$150. The essay must be neatly printed or typed. The student's name, grade, teacher's name, school, school address and school phone number must be included.

This is the second year for the contest. Last year's contest saw a 2,000 to 4,000 jump in daily new visitors to the site leading up to the contest deadline. Currently, the site has an average of 2,800 visitors per day. In addition to increasing users of the site, comments of the teachers indicated that the essay contest is a useful classroom tool for teaching various subjects, from English composition, to environmental science, to computer skills.

The contest has been announced to schools and teachers through advertisements in state teacher publications. You can help by contacting your local schools to ensure they are aware of the contest.

The essays should be sent via email to riceessay@aol.com or mail to US Rice Producers Essay Contest, 2900 Wilcrest, Suite 180, Houston, TX 77042. Essays must be received by April 14, 2004. *

<http://insects.tamu.edu/>

<http://insects.tamu.edu/extension/insctans/index.html>

<http://insects.tamu.edu/imagegallery/>

<http://iitc.tamu.edu/>

<http://insects.tamu.edu/fieldguide/>

<http://ipm.osu.edu/lady/lady.htm>

<http://axp.ipm.ucdavis.edu/>

http://www.knowledgebank.irri.org/riceDoctor_MX/

<http://www.ag.ohio-state.edu/%7Eipm/>

<http://www.ipmimages.org/>

<http://www.lsuagcenter.com/Inst/Research/Departments/arthropodmuseum/image.htm>

<http://www.insects.org/>

<http://www.ent.iastate.edu/imagegallery/>

Web Resources

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