



Texas Rice

Texas A&M University System Agricultural
Research and Extension Center
Beaumont, Texas

September 2003 Volume III Number 7

The Texas A&M University System has one of the premier agriculture programs in the world. It is an organization of statewide agricultural agencies, divisions and colleges of agriculture, life sciences, natural resources, human sciences and veterinary medicine. The personnel of these agencies and universities work collectively to improve the quality of life in Texas and beyond its borders through teaching, research, and extension.

Anyone interested in a career that involves animals, agriculture, horticulture, forestry environment, wildlife, genetic engineering, public policy, economics, leadership development, engineering, nutrition, teaching, research and international travel should check out the variety of degrees available through the Texas A&M University Agriculture Program.

Careers in agriculture, natural resources management and biotechnology are in high demand right now, and The Texas A&M University System is a great place to pursue your education. No matter which of the six Texas A&M System universities you choose to attend, you will have access to classes at other system schools via videoconferences, get hands-on experience at our various research and

The Agriculture Program at Texas A&M University



Photo by Jim Lyle

Dr. Ed Hiler visiting with students on campus. Hiler is the Vice Chancellor and Dean of the College of Agriculture and Life Sciences. He is also Director of the Texas Agricultural Experiment Station.

extension centers and teaching labs, and study under some of the world's foremost experts as teachers and mentors.

Our students, most of who come from cities and have no agriculture background, go on to become agricultural/environment advisors to lawmakers, national park rangers, leaders and consultants in agricultural businesses, Extension agents, university researchers and educators, veterinarians, and even Peace Corps advisors.

If you are interested in earning an advanced degree, Texas A&M

has all the facilities, resources and expertise to help guide you in your quest to make a difference in the world through your research programs. We have many graduate students from other nations who contribute to solving problems, which help agriculture in Texas and the U.S., and then return to strengthen agriculture and natural resources management in their home countries.

Agencies within the Agriculture Program include Texas Cooperative Extension (*Texas Rice* April 2003), Texas Forest Service, Texas Veterinary Medical Diagnostic Laboratory, the Texas Wildlife Management Service and Texas Agricultural Experiment Station. The Experiment Stations work the 'front lines', with re-

search centers in 13 locations spread across the state. Each Center focuses on the crops that are grown in that area, enabling scientists to deliver useful and timely information in each region of the state. (See article highlighting TAES Research Centers on page 9.)

There are also 13 institutes within the Ag Program, including the newly created Institute for Countermeasures Against Agricultural Bioterrorism and the Texas Water Resources Institute. Among the interdisciplinary centers within

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From the Editor...



Welcome to the latest issue of Texas Rice. Hope you enjoy the cover story on the Texas A&M University Agriculture Program. Our university's agriculture program rivals the very best in the nation, with several top 10 departments. I feel fortunate to be a member of both the Department of Entomology and the Soil and Crop Sciences Departments. Entomology arguably has the strongest undergraduate entomology program in the nation and one of the most productive graduate programs. Soil and Crop Sciences is undoubtedly at the top of the list when it comes to research and education involving crop production and management.

Our teachers work hard to deliver cutting edge information to our undergraduate and graduate student while helping to provide the tools students need to excel in today's work place. Our researchers not only train our future agricultural leaders, they help to foster a competitive spirit so students can reach their potential. Our extension specialists and county agents serve an important role in helping to delivery information to our producers.

The 13 Agricultural Research and Extension Centers are the crown jewels of the Texas Agricultural Experiment Station. From Beaumont in the Southeast, to El Paso in the far West, to Amarillo in the Northwest, our research and extension centers help to meet the needs of our agricultural and urban clientele across the state. Historically, our Centers have had a major impact on agricultural research and extension across the state, and will continue to excel in these areas. However, the role of our off-campus centers is expanding and classroom teaching is becoming an increasing component. Many students also expand their University education by working during summers on research projects at the Centers, or by pursuing M.S. or Ph.D. research with faculty at the Centers.

Each year, over 45,000 students attend the Texas A&M campus at College Station. Several thousand students also attend Texas A&M at Kingsville, Stephenville, Commerce, and at our other sister campuses. Texas parents can be assured that their kids will

obtain a strong education at Texas A&M.

September has already proven to be a busy month. The Rice Vision 2020 meeting was held in Houston on the 10th, with strong participation from our rice producers, Texas A&M and USDA administration, and our rice researchers. Excellent presentations were made by several of our rice leaders as they plan for the future. The Texas Rice Producers Board, the Texas Rice Research Foundation, and the Texas Rice Improvement Association also met on the 10th, making for a busy day. On the 11th and 12th, the Council of Resident and Center Directors (CORD) met with Dr. Ed Hiler and Dr. Bob Whitson as part of the Texas Agricultural Experiment Station administrative planning. Bob Whitson is the new Interim Deputy Director of TAES. Bob's outgoing and open personality and previous experience as a department head and as a banking executive will serve him well in his new role. On September 15 and 16, the Beaumont Center received a visit by Dr. Robert Lascano, one of the nations leaders in precision agriculture research. That same day, I had the pleasure of visiting with Drs. Gene Reagan and Ben Legendre with the Louisiana State University. Gene and Ben are working closely with Dr. Mo Way to develop regional management programs for the Mexican rice borer, a newly invading and serious pest of both rice and sugarcane. On September 17 and 18, the Center received a visit from Dr. Norman Borlaug. Dr. Borlaug is a Professor of International Agriculture at Texas A&M University and President of the Sasakawa Africa Association, an extension type organization that educates farmers to improve agriculture in Sub-Saharan African countries. He received the Nobel Prize for Peace in 1970 for his work on developing a high-yielding dwarf wheat, which a substantial portion of the world's population is dependent on for sustenance. Dr. Borlaug's knowledge of agricul-

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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.

Controlled Ambient Aeration in Stored Rice

Insect populations are largely temperature regulated, and in general their rate of development doubles with every 10 degrees increase in temperature. Grain bins are a very favorable environment for many grain feeding insects. Food is plentiful, temperatures are near the optimum for grain insect development, and natural enemies are almost totally lacking.

Two years ago, Terry Howell, then at the University of Arkansas (UA), and Frank Arthur, Research Entomologist with the Grain Marketing & Production Research Center in Manhattan, KS, initiated a study to investigate the use of controlled ambient aeration to reduce pest populations in stored rice. Arthur had done similar studies in wheat with very good success. After Howell moved to an industry position, Terry Siebenmorgen, with the UA Food Science Department, took the lead investigator's position on the project. Also on the team is Michael Boyd, Extension Entomologist at the Missouri University Delta Center, Dennis Gardisser, Extension Agricultural Engineer at UA, John Murdoch, UA and Ted Wilson, Professor and Center Director, Texas A&M Research and Extension Center at Beaumont.

To carry out the study, rice is placed in on-farm storage bins after drying down to 13% moisture. Four bins are used, two are manually controlled by the farm manager, and two are controlled automatically by temperature and humidity sensor controllers. The controllers reference the ambient temperature and humidity as well as the temperature of the rice inside the bins. If the temperature of the rice is warmer than the outside temperature, then fans are triggered and aeration occurs until the bin reaches the ambient temperature.

The insects in the study include the lesser grain borer and the rice grain weevil. Insects are placed in fine-screened cages preventing their escape, along with approximately 150 grams of rice. Twelve cages (six with borers and six with weevils) are placed in each of the four storage bins at different locations within the

bins. After 5 weeks, two cages of each species are removed and the number of live and dead insects are counted. The cages then go in to an incubation chamber and insect numbers are counted again in six weeks to account for any surviving larvae. At ten weeks, the procedure is repeated, and at 15 weeks the final cages are removed from the bins. The study has been replicated in Arkansas, Missouri and Texas.

Researchers then compare the insect populations in the bins controlled by the set points, and in the bins manually controlled by the farm cooperators. Results to date show that the controlled aeration was successful in reducing the temperature of the stored rice over the storage season and, in most cases, reduced the insect numbers as well. According to Murdoch, the most dramatic results came from research sites in Texas. This was due to the fact that the insect count was higher in Texas and showed a large decrease during the aeration period, as grain temperatures dropped significantly over the course of the study. Once the project is completed, research data will be available for farmers who are interested in using the technology on their farms.

As part of the same study, grain coolers were evaluated to determine if they made a significant impact on insect populations and grain quality. The coolers are manufactured by PM Luft Company of Switzerland. Joe and Jean Broussard of Nome and Jacko Garrett of Danbury, participated in on-farm studies using the coolers. The producers felt that the coolers were very effective, but would be cost prohibitive for most farmers. One suggestion was that farmers could join together to buy the equipment, and then share it co-op style throughout the storage season. According to Garrett, once the rice is cooled to the desired temperature, it holds that temperature for months, meaning the equipment could be moved from farm to farm as needed.*

For more information email Ted Wilson at lt-wilson@aesrg.tamu.edu.

Grower Profile...

Fremont McDermand

Fremont McDermand is a 3rd generation rice farmer, but for his son Willis to become a 4th generation farmer, the rice outlook will have to improve.

Fremont was born and raised in Nome, Texas. His grandfather had moved from Kansas just after the turn of the century and settled in Jefferson County where he raised rice and cattle. Back then, binders and mule teams were the tools of the trade, and Grandfather McDermand's first combine wasn't acquired until 1949. Fremont's dad, Willis, farmed alongside his father, but not until after he acquired his Education degree from Stephen F. Austin University.

Growing up, Fremont was submerged in the rice farming culture. Throughout his high school years, he worked long hours on the farm, but made time for football and basketball as well. Not surprisingly, Fremont was also an active participant in FFA. When I asked what motivated him to attend college, Fremont said, "I didn't know it was optional, I didn't realize that I could choose *not* to go." So he acquired his degree in Agricultural Economics from Texas A&M in 1964. Fremont graduated on a Friday and that next Monday he was working on the farm with his dad.

They farmed together until 1975, when Willis McDermand was taken by cancer. Fremont said his dad farmed right up until the very end. In 1980 Fremont was nominated to serve as board member for the Texas Rice Improvement Association, a position he still holds today. At one time McDermand Ranch accounted for 1500 acres of rice production in Jefferson County, but declining prices forced him to concentrate more on beef production. At present, they have around 250 head of cattle, but will hold back heifer calves this year to build the herd.

The cattle market has been strong over the past several years, and is especially promising this fall. According to Dr. Ernie Davis, Texas Cooperative Extension livestock marketing economist, every sector of the beef cattle industry is enjoying record-high prices. In early September, choice slaughter steers averaged \$84.94 per hundred weight (cwt), a 33% increase over 2002. The all time record high price is \$85.38 per cwt, which was set in late March of 1993. Strong consumer demand is expected to drive current



Fremont with his son, Willis, who carries his grandfather's namesake. With an advanced degree in Diesel Mechanics, Willis is a strong contributor to the family business.

prices up past that record high. So for producers like McDermand (who has raised 32 rice crops), beef production is a smart choice, and offers farm security during times when the market for rice is unfavorable.

Besides his son Willis, Fremont has two full time employees who both live on the ranch. James Harmon came to live with Fremont's dad when he was 10 years old, and has worked for McDermand Ranch all his life. Augustine Carrillo is also a veteran employee of 20 years, and carries out a full range of duties – from field maintenance to working cattle. Willis got his degree in diesel mechanics from the Lamar Institute of Technology, and then went on to Blinn College to get the necessary math courses to get his advanced degree. Fremont is very proud of his son's accomplishments, and places great value on his contributions to the family business.

Fremont also has two girls, the oldest, Shannon McDermand Adams, received her degree in English from Texas A&M. She and her husband Mike live in College Station and Shannon teaches at Bryan High School. Their two sons, Parker and Grayson, are a source of great joy for their grandfather.

Fremont's middle daughter, Kendra, has also been quite successful in her career. She graduated as Valedictorian from Hardin Jefferson High School, and went on full scholarship to Louisiana State University at Baton Rouge for an accounting degree, where she graduated Summa Cum Laude. After that, Kendra en-

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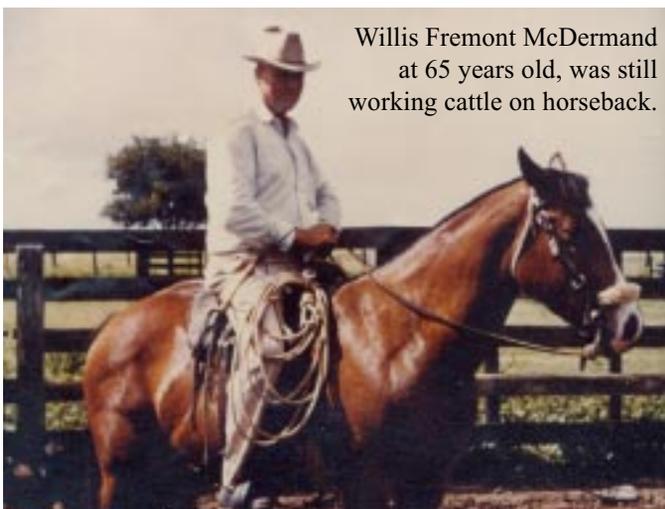
Grower Profile continued...

rolled at the University of Texas School of Law, where she also graduated with honors. She is currently working for a Manhattan accounting firm, and is engaged to be married this spring.

Fremont's wife of 10 years, Nancy Romero McDermand, works as an independent real estate agent with Caldwell Banker. She has one son, Chad, who is the same age as Willis, and the two step brothers have always gotten along well.

Besides the fact that Fremont and his daughter Shannon both went to Texas A&M, there is another Aggie connection in the family. Five years after Fremont's dad passed away, his mother Pauline married Dr. Richard Potts, who was the Dean of the College of Agriculture at Texas A&M. He was a friend of the family since the days when Fremont attended A&M. After Dr. Potts' death in 1989, Pauline moved back to Nome and built a home next to Fremont and Nancy. They live in the original McDermand homestead that Fremont's dad built back in 1951, a beautiful white stone house surrounded by giant live oaks.

Fremont showed me another set of beautiful live oaks located on the ranch property that his dad planted when he was born. Although quite stately now, Fremont remembers when the trees were barely big enough to throw shade. He also remembers when the family farm had no electricity, and water was pumped from the well by a windmill. There have been many changes in the rice industry since that time, some good and some not so good. Fremont is hopeful that the situation will improve, and his son Willis will become the fourth generation of McDermand's to farm rice in Jefferson County. *



Willis Fremont McDermand at 65 years old, was still working cattle on horseback.

Ag Program continued...

the Program is the Agricultural Food and Policy Center (*Texas Rice*, September 2002) and the Center for Animal Biotechnology and Genomics, a major player in Texas A&M's success over the past 10 years in animal cloning.

In January 2001, the Texas A&M Board of Regents dissolved the Crop Biotechnology Center and established in its place the Institute for Plant Genomics and Biotechnology (IPGB). Transition to an Institute recognized the fact that the Crop Biotechnology Center had grown in complexity and scope since its inception in 1993. The IPGB is a multi-unit, multi-disciplinary organization with participating faculty, students, and scientists from fourteen units affiliated with Texas A&M University, the Texas Agricultural Experiment Station, and the USDA-ARS. The Borlaug Center for Southern Crop Improvement, named after Nobel Laureate Dr. Norman Borlaug in recognition of his scientific and humanitarian contributions relating to the Green Revolution, provides the IPGB with a base of operations including specialized teaching and research laboratories, infrastructure, and equipment for the plant science community at Texas A&M University.

The mission of the IPGB is to develop plant biotechnology, genomics, and related life science technologies and to foster technology utilization and crop improvement through multi-disciplinary research activities on field, forest, and horticultural crops.

Within the IPGB is the Rice Laboratory, led by Dr. Bill Park. Over the past 8 years, the group has developed DNA markers for such traits as disease resistance and quality. These markers were delivered to the USDA rice breeder at the Beaumont Center and have already been used to develop new varieties that are blast resistant and have specific quality traits desired by the rice industry. The Lab is currently working on the development of herbicide resistant and high yielding rice genes through DNA transformation. This technology will also be delivered to breeders for incorporation into new varieties. The work is funded by private industry, Texas State Advanced Technology Program, the TX Grain Initiative and rice farmer check-off funds.

Throughout the state, there are seven campuses under the Texas A&M Agriculture Program umbrella including the College of Agriculture and Human Sci-

Ag Program continued...

One of the reasons plant breeders have been so successful in releasing varieties with resistance to major diseases is the work done within the department to develop genetic markers that help scientists quickly determine if a potential parent variety has the ability to pass on disease resistance to its offspring.

Biological and Agricultural Engineering – Agricultural engineers apply their knowledge of physical and biological sciences and engineering principles to the production and processing of food and fiber and to the preservation of environmental quality. The versatility of agricultural engineers results from their broad fundamental training in biological and physical sciences, mathematics, and engineering science and design. Through the selection of electives from within as well as outside the department, students are allowed to develop a specialty in one of the emphasis areas, including environmental and natural resources engineering, food engineering, and machine design. Graduates of the agricultural engineering program are sought by a wide variety of employers including feed processing industries, equipment manufacturers, cotton products industries, electric utility companies, chemical and petroleum companies, environmental consulting firms, and governmental agencies. The program features hands-on learning experiences, open-ended design, and a capstone design project presented by private and public organizations.

Entomology – The Department of Entomology offers outstanding academic programs for undergraduate and graduate student preparation for careers in research, extension, business, or industry. The Department is one of the top entomology departments in the United States based on its outstanding students, staff and faculty, excellent facilities, and exceptionally diverse programs. Scientists within the Entomology Department work closely with Beaumont Center personnel to help identify control strategies for some of the worst rice pests. Also, collaborations have led to a biological control program for aquatic weeds that plague rice fields across Texas.

Forest Science – The Department of Forest Science, established in 1969, is dedicated to educating students, preparing them for leadership positions in forestry and forestry related professions throughout the world, and generating and disseminating knowledge and technology essential to the practice of sus-

tainable forestry and resource management. Degree programs are offered in Forest Management, Urban Management, and in Renewable Natural Resources at the undergraduate level.

Consistent with the land-grant mission, faculty within the Department also play a major role in the development and application of scientific knowledge through research, and the transfer of this technology to clientele groups via outreach and service programs. The Forestry Extension program is integral in making the knowledge generated by scientists within the Department and elsewhere available to citizens of Texas, with Extension Specialists located in College Station, in southeast Texas, and in northeast Texas.

Horticultural Sciences – The Department of Horticultural Sciences offers degrees in Horticulture and Floriculture with emphasis on production and management, biotechnology & science, and environmental & urban horticulture. The production and management program provides students with the knowledge and skills needed to specialize in one or more areas including: fruit, nut, vegetable, floral, and nursery crops; landscape design, installation, and management; floral design; and food processing. Graduates in this option are prepared for specific careers in production, design, management, sales, and processing of horticultural products.

The biotechnology & science program provides a strong foundation in basic sciences and is intended for those who plan to pursue a graduate degree. Graduate studies provide career opportunities in teaching and research at universities, private industry research, cooperative extension service and consulting firms.

The environmental and urban horticulture program is designed for students interested in learning how plants improve the environment and the quality of our lives. Two areas focused on are the biological and physical concepts and horticultural principles of management of plants and plant ecosystems in landscape settings, and the sociological aspects of people plant interactions in the urban environment. In addition to the technical areas of horticulture, the student in urban horticulture will be committed to improving the way people live as it is affected by the urban setting.

Plant Pathology and Microbiology – The Department of Plant Pathology and Microbiology offers both undergraduate and graduate programs leading to re-

Ag Program continued...

warding careers in plant pathology and environmental microbiology. Graduate students may specialize in such areas as plant microbiology, genomics, disease management, microbial ecology, and molecular plant-microbe interactions.

The undergraduate program offers a degree in Bioenvironmental Sciences (BESC) that trains students for careers in the environmental, consulting, and governmental areas of microbiology.

Scientists within the department work closely with Beaumont Center personnel to insure that our rice producers have the latest information and strategies for managing disease, such as blast and sheath blight, that plague Texas rice fields.

Poultry Science – The Texas A&M University Poultry Science Department has academic, research, and service components spanning the full range from modern poultry management to the most cutting-edge biotechnology. With an undergraduate enrollment of about 140 students, they are the largest Poultry Science Department in the United States and probably the world. Upon graduation, students usually enter leadership positions in the poultry industry including management, sales, quality assurance and research development.

Rangeland Ecology and Management – The mission of the Rangeland Ecology and Management Program is to develop effective teaching, research and extension programs that provide for the generation and dissemination of information to promote sustainable use of rangeland resources. These programs are designed to address all facets of rangeland resource issues including ecological processes, resource conservation, production efficiency, risk management, conflict resolution and ecosystem management technologies for land management and monitoring, and socio-economic and policy development.

Recreation, Park and Tourism Sciences – The goals of the Department of Recreation, Park and Tourism Sciences are to generate and disseminate new and

existing knowledge concerning the development, management, and sustainable use of natural resources for recreation and tourism. The Department offers undergraduate and graduate degrees with emphasis in park and recreation administration, natural resource management and policy analysis, and tourism resources development. The first emphasis area deals primarily with the public sector, while the third is concerned

chiefly with the private sector. Natural resource management and policy analysis involves both sectors.

Soil and Crop Science

Many students who are interested in agricultural production choose the Soil and Crop Sciences Department to earn their degrees. The department's mission is to prepare students for careers in soil and crop related disciplines; to develop technology necessary to sustain

environmentally sound and profitable production systems; to ensure that technology development and transfer to society is effective and timely; and to ensure wise use, management, and stewardship of soil, plant, and water resources.

Wildlife and Fisheries Science – The Department of Wildlife and Fisheries Science is the largest of its kind in the United States. The department offers Master of Agriculture degrees in Wildlife Science and Fisheries Science, and Master of Science and Doctor of Philosophy in Wildlife and Fisheries Sciences. Scholarly research is the hallmark of studies leading to the M.S. (thesis option) and Ph.D. degrees. Each candidate must propose and conduct an original scientific investigation, which becomes the basis for the M.S. thesis or Ph.D. dissertation. The research and writing experience, together with appropriate coursework, prepares graduates for careers in research, college teaching and other scholarly endeavors. *

College of Agriculture & Life Sciences Enrollment for Fall 2002

Department	Undergraduate	Masters	PhD	Total
Ag Economics	695	82	44	821
Ag Education	1113	66	49	1228
Animal Science	1007	108	52	1167
Bio & Ag Engineering	338	35	15	388
Biochemistry & Biophysics	378	55	76	509
Entomology	37	28	31	96
Forest Science	52	12	10	74
Horticultural Sciences	146	25	25	196
Plant Path & Microbiology	172	10	23	205
Poultry Science	151	16	22	189
Rangeland Ecology & Mgt	130	32	31	193
Recreation, Park and Tourism	325	25	29	379
Soil & Crop Sciences	132	71	57	260
Wildlife & Fisheries	412	107	63	582
Totals	5345	672	527	6544

For more information about opportunities within the Texas A&M University Agriculture Program visit <http://agprogram.tamu.edu/> or call 979-845-4747.

Research Making a Difference

The Texas Agricultural Experiment Station (TAES), the agricultural and life sciences research agency of Texas, conducts research to assure the highest quality food and fiber products and a sustainable environment. A key component of the agency's mission is to foster economic viability throughout Texas and the national agricultural industry.

Improving the competitiveness of Texas agriculture is a priority. For instance, scientists are working to develop early-season corn hybrids that are drought, heat and insect resistant. The Center for Agricultural Air Quality and Science has made substantial strides in developing technologies to sustain confined animal production without environmental degradation. TAES researchers continue their quest to enhance human health and market efficiency while maintaining the affordability of agricultural products. BetaSweet carrots, with high levels of beta-carotene, help prevent cancer. And a new sampling method in poultry helps to rapidly detect salmonella contamination.

Despite the fact that research is expensive, the agency more than compensates for its operation. For example, products of TAES research result in a 30 to 50 percent annual return on investment. The agency generates 41 percent of the A&M System's royalty income from commercialization of technology, and TAES received more than \$56 million in contract and grant awards for fiscal year 2002. The following is a brief overview of the Research and Extension Centers located throughout the state.

Amarillo - Located in the Texas panhandle, the Amarillo Center has 2 satellite stations; the North Plains Research Field Station focuses on irrigation management and water conservation and the Bushland Station, which is a jointly operated federal and state complex. At the main headquarters in Amarillo, there are educational and research facilities for scientists and Extension faculty focusing on programs in Agricultural Economics/Risk Management, including the statewide Master Marketer and Risk Management Programs; Agricultural Engineering, with its state and federal research emphases in Environmental Systems Quality; Manure Management; and Beef Cattle Health and Nutrition programs, including feed, forage and pasture improvement. Crop Production and Improvement Programs focus on small grains - primarily wheat, oats and barley. Insect and plant disease management pro-

grams feature biological control research and IPM. Amarillo's plant pathology program and the Center are part of the Plant Disease Diagnostic Laboratory network within the Department of Homeland Security.

Beaumont - The Beaumont Center consists of the Texas A&M University Agricultural Research and Extension Center, the USDA-ARS Rice Research Unit, and the Texas Rice Improvement Association. History of the Center dates back to 1909, when the state legislature established an experiment station in Amelia, just west of Beaumont. The Center facilities are comprised of 990 acres in Beaumont, 120 acres in Eagle Lake, and a smaller test site in Ganado. The various sites allow scientists to conduct research within the major soil, climate and cultural conditions found across the Texas rice belt, so that experiments give meaningful results for rice farmers no matter where they are located in the state. Since 1942, rice breeding efforts at the Beaumont Center have resulted in the release of 35 improved rice varieties. Numerous rice production practices have also been developed by researchers at the Beaumont Center, including fertilizer management, insect and weed control. The Center supports rice research projects in Soil Science, Plant Physiology, Entomology, Molecular Biology, Genetics, Varietal Improvement and Crop Modeling.

Vernon - Research at the Vernon Center supports the two major agricultural enterprises of the region - dryland farming and cattle ranching. Cotton insects receive major research emphasis, with other research efforts directed to aphids on wheat, rangeland insects and livestock pests. Agronomic research has concentrated on cropping and tillage systems for cotton, wheat, guar and grain sorghum, with emphasis on reduced tillage and cover crops for improved water use efficiency. Management practices for dual-purpose livestock and grain production from wheat and other winter cereals are being aggressively developed, along with introduced forage programs that complement winter wheat pasture for livestock production. Research has been initiated to improve management decisions for whole ranch enterprises through computer modeling. The tested model will allow landowners to choose profitable and ecologically sustainable alternatives in their ranching enterprises. And finally, the addition of a wildlife research program provides the means for integrating traditional rangeland livestock production and conservation of the wildlife resources of the upper Rolling Plains.

Corpus Christi - The Corpus Christi Center was dedicated in May of 1974 and currently has 179 cropland research acres. They have 40 research and extension faculty and support staff and the Center is headquarters for TCE District 11, comprising 18 counties in the Coastal Bend Region. Research at the Corpus Christi Center focuses on crop production systems and cattle. Research areas include animal nutrition, economics, entomology, plant pathology, plant and animal physiology, soil science and weed science. Collectively, researchers address the problems facing south Texas agriculture and related renewable natural resources industries (recreation and wildlife management.) The Center is administratively responsible for the research of three satellite sub-stations located at Beeville (beef cow and mare reproduction, forages, and weed science), and Flour Bluff and Port Aransas (shrimp mariculture).

Dallas - The Dallas Center is home to over 50 Texas Agricultural Experiment Station scientists and Texas Cooperative Extension Specialists. Their programs include 4H & Youth, Beef Cattle Science, Cotton, Dairy Science, Economics, Entomology, Forage, Horticulture, Plant Pathology, Small Grains, Soils, Soybean and Turfgrass. The Center maintains a satellite research farm in Prosper, Texas, which covers 160 acres of land with storage and laboratory facilities. Several statewide seed trials have been grown at the Prosper farm. The Texas A&M University Agricultural Program uses these trials to certify crop performance currently in 10 different locations throughout the state. Small grain research is also conducted at this location.

El Paso - The focus of El Paso Agricultural Research and Extension Center programs is water resources management. Located in the Chihuahuan Desert of Far West Texas and Rio Grande watershed, El Paso Center scientists are working with the urban and agricultural communities (local population of over 2 million), irrigation districts, government agencies and other organizations in the region, across the state and internationally to provide reliable and safe water supplies, improve use efficiency and enhance water quality and overall watershed management. Scientists are housed at two locations, the main Center constructed in 1976 on 43 acres of land next to I-10 in El Paso and at our Socorro, TX research facilities estab-

lished in 1942 on 190 acres of land. The Center is developing solutions for the challenges and water resources needs of the region. Specific programs target source identification and control of waterborne pathogens, water and soil salinity management, use of reclaimed water, reducing canal delivery losses, increasing irrigation efficiency, urban-ag bioremediation, conjunctive surface and ground water management, developing drought and salt tolerant landscapes, and economic analyses of water use and policy alternatives.

Lubbock - Located in the Southern High Plains of Texas, Lubbock Center scientists conduct research on cotton, sorghum, corn, peanuts, vegetables, sunflower, wine grapes, wheat, peas, alfalfa and forage crops. Disciplines include Ag Economics, Entomology, Family & Consumer Sciences, 4H and Youth, Irrigation/Water Conservation, Plant Disease, Soil Fertility, Soil Physics and Weed Science. The Center's scientists work closely with their counterparts at Texas Tech University and the USDA Agricultural Research Service. Educating the next generation of agricultural leaders is a high priority for all TAES scientists. To meet this end, the Lubbock Center employs an average of 20 undergraduate and 18 graduate students each year, and Center faculty serve as academic advisors to further strengthen the student's education.

Overton - The Overton Center is located in the Piney Woods of Northeast Texas, on 1500 acres of sandy loam soil. Programs include Agricultural Economics, Management, Entomology, Forage Utilization, Forage Management, Forest Science, 4-H, Extension District # 5, Vegetables, Legume Breeding, Ornamentals, Plant Pathology, Reproductive Physiology of Beef Cattle and Exotic Deer, Small Grains and Rye Breeding Program, Soil Science, Wildlife and Fisheries Science. Overton Center researchers are also a part of The East Texas Nursery and Greenhouse IPM Program, which is a collaborative effort between Texas Cooperative Extension, Texas Agricultural Research Station, Texas Nursery and Landscape Association, and the Northeast Texas Nursery Growers Association.

San Angelo - Located in Central West Texas, the San Angelo Center has programs in Agricultural Economics, Agronomy (wheat, oats, cotton, sorghum, forages and sesame), Animal Genetics, Animal Nutrition/Toxicology, Entomology, Family & Consumer Sci-

TAES continued...

ences, 4H & Youth, Pathobiology, Rangeland Ecology, Sheep and Goat, Wildlife Management and Wool and Mohair. The Center is responsible for three satellite stations at Barnhart (3161 acres), Ozona (5000 acres) and Sonora (3462). Much of the work conducted at the satellite stations focuses on Angora and meat goat production.

Stephenville - The Stephenville Center is located on 675 acres of sandy soil in North Central Texas. The Center houses TAES staff conducting research on peanuts, peaches, pecans, forage, water utilization, and dairy; and TCE staff that direct extension activities in 21 counties of Extension District 8. The Center is responsible for the release of several peanut varieties that have contributed a significant amount to agricultural production in Texas. Additionally, producers are avoiding the worst of the effects of the tomato spotted wilt virus in peanuts with the use of the 'planting window' developed by scientists at the Stephenville Center. Center staff cooperate closely with Tarleton State University faculty and students and play a significant role in Tarleton's educational activities.

Temple - The Blackland Research Center at Temple is co-located with the Grassland, Soil and Water Research Laboratory (GSWRL) of the USDA/Agricultural Research Service (ARS). Scientists from Blackland and the GSWRL have worked cooperatively at Temple for 70 years. Scientists from the Natural Resources Conservation Service (NRCS) also are located at the facility. The Center has 440 acres at the headquarters in Temple, and an additional 840 acres in Riesel. They have research programs in Agricultural Economics, Agricultural Meteorology, Agronomy, Crop Physiology, Cropping Systems Simulation, Hydrologic Modeling and Water Quality.

Uvalde - The Uvalde Center was established in 1971. The Center was designed to provide support for agricultural enterprises of the South Texas Plains region. Research activities conducted by TAES scientists include Crop Stress Physiology, Range Ecology, Optimizing Forage Utilization by Cattle, Wildlife Research, Systems Research in Beef Cattle Production and Vegetable Research. Extension programs are conducted by county agents and specialists of TCE who take this research based information to the citizens. The Center is headquarters for Extension District 10, which contains 21 counties encompassing the Texas

Hill Country and the southern end of the Blackland Prairie. The 50-acre site for the Center was deeded by the City of Uvalde to Texas A&M University in 1971, and an additional 142 acres are leased.

Weslaco - The Weslaco Center is located in deep South Texas, only 5 miles from the Mexico border. Research areas include citrus, row crops, vegetable production and sugarcane varietal improvement. Extension personnel at the Center deliver research information to the farmers and general public through various programs including the Master Gardeners and other gardening societies. Scientists at the Center also study water conservation and wastewater management. The South Texas Produce Initiative Task Force was formed in 1998 through cooperation by the Weslaco Center, the Department of Agricultural Economics and TCE. The goals of the Task Force are to improve industry communication; develop markets; promote research in support of the vegetable industry; and improve harvesting production systems.

So wherever you live in the state, TAES scientists are close by conducting research and making a difference for Texas and the world. *

Payment Limitation Update

The Commission on the Application of Payment Limitations for Agriculture released its long-awaited report earlier this month. Consistent with recommendations made by the US Rice Producers Association earlier this year, the Commission did not recommend that any reductions or substantial changes be made in farm program payment limitations. In fact, the commission made a number of recommendations that will be helpful in combating proposals to further limit farm program payments. Among the recommendations are 1) Any substantial changes should take place with re-authorization of the next Farm Bill; 2) If substantial changes are made, there should be an adequate phase-in period; 3) Alternative ways of addressing payment limits, payment eligibility, and payment limit implementation need more analysis; and 4) Attributing payments directly to individuals could improve program transparency, administration, and farm efficiency.

If you would like a copy of the entire report (162 pages) contact the USRPA at 1-877-974-7423 or go to www.usriceproducers.com under Legislative News.

Article by Dwight Roberts.

From the Editor continued...

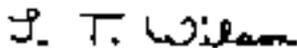
ture is truly exceptional.

One of the main functions of the Beaumont/Eagle Lake Center is to develop and deliver research information to our grower clientele. In March of this year, the Center “published” its website, providing an additional way to deliver information to our agriculture audience. Visits to our website are exceeding all expectations. During the first six months, visitors have viewed web pages on our site over 300,000 times, or an average of nearly 2000 pages per day. Since adding *Texas Rice* to the Beaumont website in May, we have received an average of over 900 newsletter downloads per month, with close to 1,800 downloads of last month’s issue. The amount of information and number of features that are provided through the Center’s website continues to increase at a very fast rate. In a later issue of *Texas Rice*, we will provide a detailed description of the type of information that our users are obtaining from our web site.

Before I forget, mark January 28 on your calendar for the Rice Council meeting in Houston. For more information, please contact Betty Kornegay at 713-974-7423 or email her at betty@usriceproducers.com. More on the Rice Council meeting in a later issue of *Texas Rice*.

Please continue to send me your comments and suggestions.

Sincerely,



L.T. Wilson

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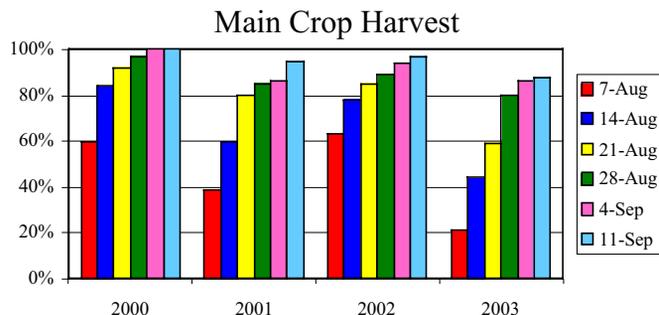
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Texas Rice is published 9 times a year by The Texas A&M University System Research and Extension Center at Beaumont. Interviews, writing and layout by Jay Cockrell. Editing by Ted Wilson, Jay Cockrell and Brandy Morace. Additional support by Jim Medley and Robin Clements. Information is taken from sources believed to be reliable, but we cannot guarantee accuracy or completeness. Suggestions, story ideas and comments are encouraged.

Rice Crop Update

As of September 11, main crop harvest is progressing well in spite of heavy rains in some areas of the state. With 88% of the crop in, we are only 9 percentage points behind the 2002 harvest season.



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Link to TAES Centers
<http://agresearch.tamu.edu/depts.htm#centers>

Texas Cooperative Extension (TCE)
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