Texas Rice

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

July 2001 Volume I Number 5

The 54th Annual Beaumont Field Day Rice Research Impacting the Future

From 1500 lbs/A in 1939 to 8000 lbs/A today - that is the impact of rice research in Texas. And not just yields have improved - but disease resistance, days to maturity, milling yields and cooking quality. Scientists at the Texas A&M Research Center in Beaumont have worked for eight decades to improve rice production so our farmers can compete in a global marketplace.

Field Day 2000: Covered trailers offer a shady seat while waiting for morning tours to begin. From left to right: Ruben Stringer, Vocational Ag teacher at Hamshire-Fannett; Dr. Jim Stansel and Dr. Ted Wilson.

The 54th Annual Field Day is an excellent opportunity for producers to visit the Station and see firsthand the research being conducted, and meet the scientists who make it happen. The Field Day is not just for farmers, but for anyone who is interested in the rice industry and the impact it has on our local communities.

The date is Thursday, July 12th with field tours beginning at 8am. The trailers are covered to give some relief from the sun, and water will be provided for those taking the tour. The presenters will be Dr. Anna McClung, discussing variety improvement; Dr. Arlen Klosterboer, with information on weed management systems in rice; Robert Weatherton, talking about our newest Texas release Saber; Dr. M.O. Way, describing current research on stem borers and rice water weevils; Dr. Fred Turner, explaining nitrogen use efficiency and main & ratoon crop management; and Dr. Lee Tarpley discussing rice plant physiology.

The morning program will begin after the tours with an introduction and welcome by the Beaumont Center Director, Dr. Ted Wilson. At 11am the Texas Rice Improvement Association will have its annual membership meeting and report by Robert Bauer, TRIA Chairman. After that Des Woods, Texas Rice Research Foundation chairman, will present the TRRF annual report. Next, participants will hear from Texas State Representative Robby Cook about water legislation and issues affecting rice farmers. This is especially important, as there were many developments in the last legislative session that will have a direct impact on rice production in Texas. And finally, Dr. Fred Shih from the USDA-ARS Southern Regional Research Center in New Orleans will give an update on value-added uses of rice. Dr. Shih is a Research Chemist and has worked extensively to develop new products from the by-products of milled rice, such as bran and broken kernels, including high protein rice flour and starches. He will also discuss development of specialty items such as edible films, fat substitutes and low-fat uptake products derived from rice.

At noon field day guests will be treated to a complementary lunch catered by Mikeska's Barbecue. After lunch, there will be a special tour to present information on red rice control with Newpath herbicide. Speakers will be Dr. Garry McCauley, Water Management; Dr. Mike Chandler, Weed Science; and Brian Ottis, a graduate student in Soil and Crop Sciences who has done extensive research on red rice control. There will be plenty of opportunities for growers to ask questions and learn more about this emerging technology.

We encourage farmers to take advantage of this opportunity to visit the Beaumont Center and learn more about rice research, and how it will impact their future. *

From the Editor...

Rice research in Texas is very much a grower driven enterprise. Eight cents is levied for each 100 lbs of rice grown in Texas. Three cents is used for marketing and five cents is used to support rice research. Every dollar provided by an individual grower through the check-off program contributes to improving rice research and marketing in Texas.

On the research side, this money has been used to develop improved varieties and superior management practices. The increase in grower profits that can be attributed to rice research amounts to about $41.82/ac/yr, or a total of about $286 million since 1983. Looking at the numbers slightly differently, for every dollar contributed by growers for research, the total return has been about $22.

Grower funding does more than just pay for research. It shows our University and USDA leaders that the Texas rice industry is committed to supporting research. Texas rice producers are in a partnership that allows much more to be accomplished than any one of these organizations can alone. The Texas Rice Research Foundation (TRRF) is currently funding 13 projects, ranging from varietal development to agronomic and pest management. TRRF has also been instrumental in obtaining national funding. Collectively, this has led to nearly $1 million dollars in research support this year alone.

Several research projects that are currently being supported by grower funds have tremendous potential for improving rice productivity and grower profitability. Saber, the newest variety developed by Anna McClung out of the USDA-TAES varietal development program, has extremely high milling yields. Studies conducted by Fred Turner on carbohydrate storage are helping to fine-tune ratoon crop production. Studies by Mo Way on stem borers and water weevils have tremendous potential for increasing main crop and ratoon crop yields by well-timed applications of insecticides. Herbicide resistance research lead by Garry McCauley will soon provide a valuable new tool for red rice control. Research by Shannon Pinson and Scott Osborn has the potential to greatly improve grain quality. These examples represent but a small number of projects being conducted by our researchers to improve the profitability of Texas rice producers. Grower funding makes all of this possible.

There are times when our rice producers all share poor weather, tough markets, and certainly, dwindling help from government. But, you also share the need to help each other to enhance the stability and progress of our industry. Through the rice check-off program, rice producers help each other and the future of the Texas rice industry.

Many of our current markets and the things we use today to produce a rice crop, are direct results of Texas rice research and market development programs. But, an effective program depends on grower support. Whether it is to find more disease resistant, higher quality and higher yielding rice, or to support programs that raise the level of U.S. rice consumption here at home and throughout the world, your check-off funds benefit all Texas rice growers.

Sincerely,

T. T. Wilson

Ted Wilson
Professor and Center Director

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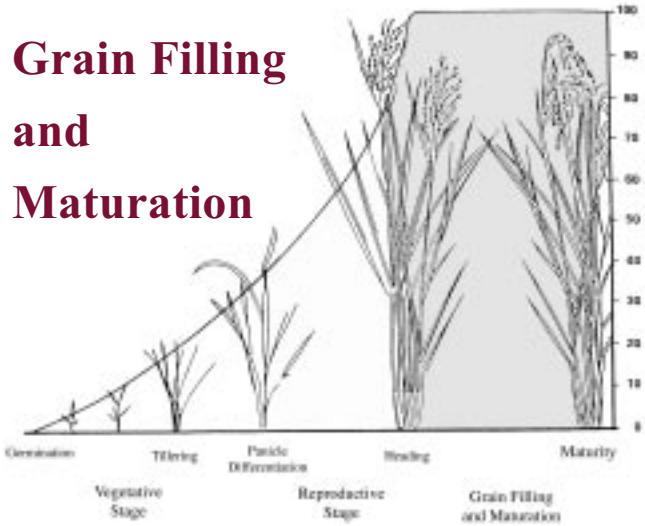
Farming Rice

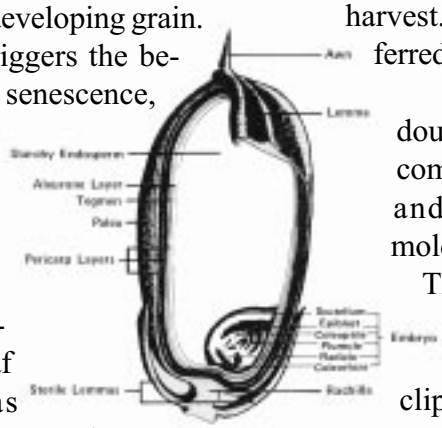
a monthly guide for Texas growers

This is the fifth in a series of articles that will be published throughout the year. Our intention is to provide useful and timely information to Texas rice growers, so that they may increase productivity and profitability on their farms.

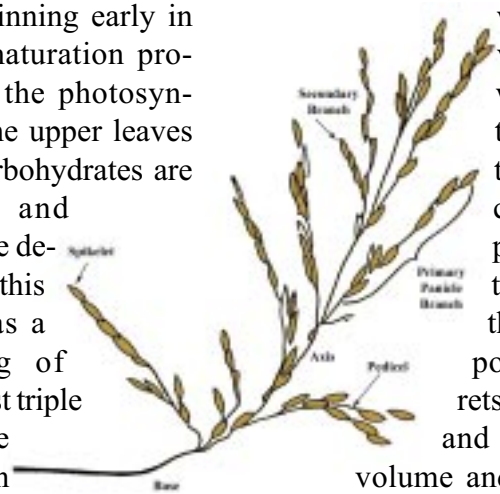
Grain Filling and Maturation



Once a floret is pollinated, fertilization is complete in about 30 minutes. At this point development of the grain begins, as the ovary swells and starch grains begin to appear in the endosperm. This is the time when the coleoptile, coleorhiza and the scutellum begin cell differentiation. Carbohydrates are transported from the leaves (beginning with the lower ones) and culms into the developing grain. This process triggers the beginning of leaf senescence, and can easily be observed as lower leaves begin to turn brown and die. Environment affects leaf senescence, as seen in cooler regions where upper leaves may stay green throughout grain maturation. Also, leaf senescence is faster in indica than in japonica rices. The relationship between leaf senescence and grain filling is complex. Faster leaf senescence can result in faster carbohydrate translocation and grain filling, or it may indicate a problem with weather or soil conditions in which case grain filling would be hindered.



Beginning early in the maturation process, the photosynthetic activity of the upper leaves is very high, as carbohydrates are being produced and translocated into the developing grain. At this point the grain has a moisture reading of roughly 58%, almost triple what the moisture reading will be when the grain is ready to harvest. This is commonly referred to as the "milk stage".



Early in the soft dough stage, the grain is compressed by the lemma and palea (hull) and molded into its final shape. This molding process is evident when the lemma and palea are clipped at the top to prepare florets for crossing. Without the constraints of the hull, the developing grain is longer and curved, often referred to as "banana shaped".

The terms soft, medium and hard dough stage describe the texture of the developing grain as it loses moisture. The process of grain growth is quantified by the increase in dry weight and the decrease in water content. In general, the rate of grain growth is faster and the grain filling period is shorter at higher temperatures. But at excessively high temperatures some varieties show a decrease in grain weight. Individual kernel weight is determined by the amount of carbohydrates produced and translocated, the number of pollinated florets being filled, and the physical volume and size of the floret. The grains at the tip of the panicle normally fill first, so are generally the largest and heaviest. If the carbohydrate level is sufficient, and translocation to the panicle is not blocked (from the rotten neck phase of the blast disease, stem borer damage, etc.), a majority of the grains will fill properly. If extremes of either cloudy, rainy, or hot weather occur at the time the florets are ready to be fertilized, many may fail to be fertilizers. Once a floret has been fertilized it is called a spikelet.

Spikelet loss has both an environmental and varietal basis. If the

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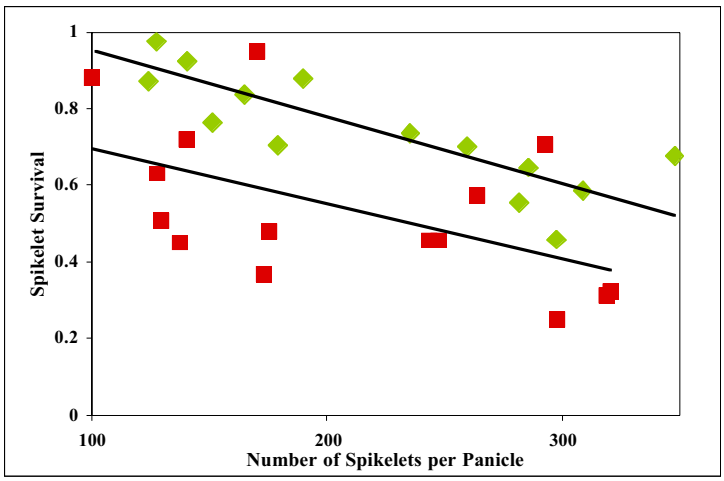
amount of nitrogen or carbohydrates in the plant are limiting, a greater number of spikelets will either abort or will not fill properly. Under stressful growing conditions, the base kernels are also smaller. Both of these conditions will lead to reduced yields. As a general rule, spikelet abortion increases the later the rice is planted. This is largely a result of late planted fields maturing their grain during a period of higher temperatures. Elevated temperatures result in the rice plants expending more energy converting sunlight into carbohydrates, leaving a lesser amount of carbohydrates to "feed" the developing grain. A two to three week delay in planting beyond an optimal planting date can result in as much as a 1600 lb/acre decrease in yield during a typical year. Even when a crop is planted during a "normal" period of time, prolonged hot weather can greatly reduce yields. When this occurs, a large amount of the yield loss that results is due to excessive spikelet abortion.



Varietal traits that most influence spikelet loss are the degree of tillering, the number of florets produced, and grain size. In general, the higher the number of tillers produced or the higher the number of florets produced per panicle, the lower the spikelet survival. Any factor that decreases the supply of carbohydrates to the developing grain will always decrease their survival. Similarly, varietal traits that increase the number of competing florets or the growth potential of the grain will decrease the number of spikelets that survive to maturity.

The data shown in the figure illustrate the impact of both environment and variety on spikelet survival. The green points in the figure represent the proportion of florets for 15 varieties that survived to maturity during a "normal" season. The red points represent the proportion of florets for the same varieties that survived to maturity during an abnormally hot season. Spikelet survival, averaged across varieties, was reduced by about 20% by the hot weather. The number of spikelets per panicle had an even greater impact on spikelet survival. As the number of florets per panicle increased, the proportion that survive to produce mature grain decreased. During the "normal" season, survival decreased from nearly 100% to about 50% as floret density increased. During the "hot" season survival decreased from about 90% to about 25%.

The rice plant dynamically changes through its development and maturation. By carefully watching and managing its growth and development, a rice producer can minimize the effects of adverse environmental conditions. By knowing how specific varieties respond to agronomic and pest conditions, a producer can grow a crop whose yield and grain quality is much closer to a variety's potential. *

Article by Ted Wilson and Jay Cockrell.

Marketing News

Highlighting buyers, processors and distributors

Texana Rice, Inc.
Louise, Texas

Texana Rice, Inc. was formed in April 1999 and purchased the old El Campo rice mill located in Louise. One month after the purchase, a fire completely destroyed the mill. Texana rebuilt the mill with the help of investors and began operations in August, 2000. Texana Rice is owned and operated by Doug Wengler of El Campo and Vic Cannon and Randy Read of Houston.

According to the USA Rice Federation the rice milling industry in the U.S. is in dire peril due to cutbacks in the PL-480 program, embargos and unfair foreign tariff structures that favor rough rice exports over milled. Texana is struggling to adapt to this market environment by developing branded sales into the U.S. domestic market and direct export sales to foreign buyers. Rice is currently being shipped into the Texas and California markets along with export sales to Mexico, Ghana and the Caribbean.

For more information contact Vic Cannon at 979-648-2696 or email rice@texanarice.com.

Farm Services in the News...

Randy Eason in Beaumont

While most 10 year olds were still playing children's games, Randy Eason began his career in the rice fields.

In the third grade Randy became best friends with John Heiner, Bill Heiner's youngest son. The boys worked together in the rice fields – patching levees, rogueing, mending fences, puddling and helping with harvest. They also helped with the Heiner's cattle operation, which fascinated Randy. He was also very interested in the massive equipment necessary to run the large rice-cattle operation. Eager to learn everything he could, Randy watched closely and took every opportunity to expand his responsibilities. He also stayed busy with FFA projects, raising poultry, rabbits and hogs for show.

From left to right: Joe Holden, Augustine Castro, Steve Landry and Farm Services Manager Randy Eason

After high school graduation, Randy and John were accepted at Lamar University and enrolled in the same degree program, Secondary Education. Randy continued to work on the Heiner farm, as a means to finance his college education. He lived with his mom and dad in Beaumont, and was the oldest of three children. His dad, Robert, worked in Industrial Sales, and his mom, Patricia, taught elementary school. After college Randy taught Science at Hamshire Fannett, but his love for agriculture soon brought him to the Beaumont Station.

In 1990, Randy went to work for Dr. John Sij in the alternative crops program at the Texas A&M Research Center. He assisted in research on soybeans, kenaf, oats, corn, mung beans, cowpeas and sugar cane. In 1997, when budget constraints forced Dr. Sij to take another position, Randy was left in charge of the alternative crops program. He continued in that role until March of this year, when he was asked to take over as Farm Services Manager.

The role of Farm Services Manager is a busy one, and critical for the station to function most effectively. Randy coordinates general farm related activities involving small plot and large field research projects. This includes spraying, disking, planting, fertilizing and

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Spotlight on Support

The Farm Services staff includes Augustine Castro, who has 9 years at the station; Steve Landry, a veteran of 10 years; and Joe Holden with 7 years experience. Their duties include large-scale groundwork such as field preparation, levee construction, laser leveling and irrigation system upkeep. They are responsible for equipment maintenance and repairs, general upkeep of station roads and mowing, shop care and restocking supplies. The crew is also responsible for the alternative crops and carry out planting, fertilizing and harvest duties. Station security is also an important part of their job, along with support of the Foundation Seed Program in times of high labor demand.

Being Farm Services Manager is definately not just a desk job.

harvest. He is also responsible for general upkeep of the Center grounds such as mowing and maintaining clear ditches for water run-off. Randy is responsible for purchasing and maintaining vehicles and equipment, as well as keeping an accurate record of all repairs and modifications made. As a supervisor, he oversees all farm ops employees and participates in the interviewing process for new personnel.

Randy also coordinates with the researchers in planning and conducting field size evaluations to verify appropriate technology for rice farmers. A smaller portion of his time is still spent conducting alternative crops research on soybeans and sorghum. Another minor component, but very critical, is the operation of our wastewater treatment plant, including monthly reports to the TNRCC.

A test plot of Group IV Soybeans under Randy's care.

With all his responsibilities at the Center, it seems impossible that Randy could have any time off. But one weekend a month, and two weeks in the summer, Randy serves in the Coast Guard Reserves. He went into basic training just after graduating from Lamar and had an opportunity to enter Officer Candidate School, but declined due to traveling requirements. Instead he went into the Direct Petty Officer Program and entered service as an E4 rather than the standard E1. This was possible due to extremely high achievement scores and equally high physical testing.

Randy with his wife Darla and his sons Isaac and Elijah.

Randy is stationed on the Point Class Coast Guard Cutter *Point Baker* out of Sabine Pass. For his monthly duties he joins the full time crew, and functions as a regular part of the team in whatever duties may arise. This could be anything from search and rescue missions to monitoring for illegal drug traffic. And of course there is always the possibility that Randy will be called for full time duty if a crisis occurs. How does his wife feel about this? Randy says she has always been very supportive of his service, and happily carries the parental load when he is away.

Randy and Darla have two sons, Isaac, 8, and Elijah who is 18 months. The couple officially met at a graduation party for Randy's sister, although their parents had been friends for many years. They started dating shortly after, and were married a year later in March of 1988. Darla is an agent for American Real Estate, and the couple has a beautiful home on three wooded acres in Lumberton. They enjoy outdoor activities with their boys such as boating, fishing and camping. Randy is an Assistant Den Leader in Isaac's Boy Scout troupe, and plans to stay active in the group until both his sons are through.

Sorghum trials are also Randy's responsibility.

Dedication to family, community service and a strong work ethic are this writer's observations of Randy Eason. The Beaumont Center is fortunate to have him as our own. *

Article and photos by Jay Cockrell.

Grower Profile...
Mike Doguet

Rice, cattle, turf, crawfish. Diversification has brought success for this Beaumont businessman and farmer.

When Mike Doguet was only 12 years old he took his first job with Milberger Turf Farm near his family's home in Bay City. While this seems quite early for a young man to begin his career, anyone who knows Mike would agree that his entrepreneurial spirit burns bright. When Mike was in high school he participated in FFA raising pigs for show, but didn't take on many other extracurricular activities, as that would have interfered with his after school job.

In 1971, Mike's father Darby was offered a position with Elizabeth Rice Dryer in Beaumont, after working many years for Independent Rice Dryers in Bay City. The family moved just before Mike's senior year, so he graduated from high school at Hardin-Jefferson. Mike went on to Lamar and acquired an Associates Degree in Business Management. All through college Mike was self-employed, selling turf and planting grass at new home sites.

In 1975 Mike married his high school sweetheart, Lisa Leger, whose father farmed rice in Jefferson county. Shortly after the couple married, Mike began working for his dad at the Chambers County Seed Company. A year later, in 1978, Mike planted his first 60 acres of turf in China. Darby purchased a rice dryer in Beaumont the next year and began installation of the mill. By 1981 they were milling rice for bulk shipments, and soon after were equipped to bag rice under the Doguet label. Company labels now include Budget, Jasmine, Golden Eagle, Red Wing and Doguet's Extra Fancy Long Grain.

Mike with his wife Lisa (center) and sister Debbie

But farming blood ran deep in the Doguet family, as Mike's great-grandfather, Arthur Ardoin, was a rice farmer in Louisiana at the turn of the century. In 1984 Mike and his dad, Darby, began a rice farming partnership. Looking for a suitable rotation that would enhance the rice production, and make money on its own, the father and son pair purchased their crawfish farm in 1990. Four years later, Mike bought his father's half of the partnership and struck out on his own. Things went well on all fronts - with the rice, crawfish and turf farm producing well. In 1997 when Darby was ready to retire from the milling business, Mike and his sister Debbie (who farms rice with her husband Kevin) bought their dad out and made Doguet's Rice Milling Company a brother and sister operation.

Located on S. Major Drive in Beaumont, Doguet's Rice Mill has been in operation for over 20 years now. They buy long and medium grain rice from growers across the Texas rice belt. Doguet's is certified to handle organically produced rice, and contracts with several farmers to meet the demand in this growing market. They

Purging tanks at Doguet's crawfish farm. Mike says it is a myth that crawfish purge better with salt added to the water. The salt make them regurgitate (which doesn't clear the 'vein') and die soon after. The best method is to keep them in fresh cool water for 24 hours. In that time they will normally excrete all waste matter.

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Mill Manager Billy Blanchard shown here grading rice.

have a storage capacity of 10,000 tons, and can mill over 150,000 pounds of rice per day. They are also equipped to process and bag high quality brown rice, for those consumers who prefer the taste, texture and health benefits of whole grain rice.

Currently, Mike has 550 acres in rice production, with 35 acres dedicated to producing registered seed of the newest Texas release, Saber. The remaining acreage is planted to Gulfmont, which Mike says has the consistent quality necessary for his packaged rice. He operates a minimum till system, where the fields are worked and precision leveled in the fall, which allows for earlier planting in the spring. For fertilizer Mike uses urea and ammonium sulfate. Both Saber and Gulfmont will get approximately 180 units per acre, spread out over 3 applications. Mike has discontinued the use of ICON as it is detrimental to the crawfish, which are an integral part of the rice rotation.

For the crawfish-rice rotation the basic design is simple. After a rice field goes into permanent flood, the baby crawfish are seeded. Floodwaters are kept constant and uniform, at about 6 inches. When the rice is ready to harvest the fields are drained and the crawfish burrow down below the surface. After first harvest, the crop is managed for ratoon even though the second crop will not be harvested. Water is brought back up in October and the crawfish feed on the stubble and ratoon rice through the winter. In the following

Operating the sod cutter is Ross Leger,
Mike's Turf Farm Manager and brother-in-law.

Between the mill, the rice fields, the turf farm and the crawfish farm, Mike's truck becomes another office.

spring the crawfish are ready to harvest. Mike says the little critters act like giant earthworms, turning the soil and adding nutrients. The rich soil is then primed and ready for another season of rice.

Cattle are also incorporated into the rice rotation, where a field will be two years in cattle then one year in rice. The herd is registered Brangus, and Mike utilizes leading edge technology for procreation. The females are artificially inseminated, and then about a week later the vet comes to do the flushing. The embryos are placed in surrogate cows, or frozen if there are no "recips" available. By this method, a prime animal can have as many as 30 calves a season. This part of Mike's operation is based in McCoy, just south of San Antonio. Some of the bulls are brought to Beau-

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mont and sold to other producers for breeding stock.

And finally, Doguet's Grass Farm in China is another component to the operation, although not part of the other rotations. The company offers St. Augustine and Centipede grass, and is exclusive growers and distributors of Baby Bermuda and JaMur Zoysiagrass. They service homeowners, public parks, athletic fields etc. The grass is installed as mats, rolls or sprigged. In searching for a competitive edge, Mike purchased special sprigging equipment that cuts the sprigs off the sod just before it drops to the ground. This prevents drying out, and gives the grass a jump-start in getting established. Currently, Mike has over 250 acres in grass

Mike showing a test area planted with a new A&M release, a Texas Bluegrass called 'Reveille"

production. A new release from Texas A&M is currently being evaluated at the farm. It is a Texas Bluegrass called "Reveille" that its developers say will stay green all winter, *and* survive the Texas summers. Mike said the grass is currently under evaluation at the China farm for suitability to this area, and will be added to the Doguet product line as soon as he is satisfied with its performance.

As expected, Mike's wife Lisa is a jack of all trades. She works at the mill, the crawfish farm and the turf farm office – basically wherever the need is greatest. The couple is very involved in community activities, especially FFA and 4-H. Each October, at the annual Southeast Texas State Fair, the Doguet's buy animals from the sale and out of the barn, helping youngsters put away money for college. In 2000, Mike purchased 15 hogs and 8 steers, with most of the meat going to employees as a Thanksgiving bonus, and the remain-

A sampling of the products offered under Doguet's label.

der donated to Boys Haven. They also donate rice to the Southeast Texas Food Bank, churches, schools and non-profit organizations.

Mike and Lisa have two children, Michelle who is 21 and a senior at Texas A&M (with a 3.9 GPA!), and Darby, 19, who is attending Lamar University in pursuit of a marketing degree. Named after his grandfather, Darby is very much involved in the family business and works for his dad at the crawfish farm, or wherever else he may be needed. Mike is very close to his sister Debbie, as their success in the partnership of the mill indicates. Including Mike and Debbie, Darby Sr. and Norma Dean, affectionately known as "Dea" in the rice business, have 6 children. They are a tight knit family, with holidays and birthdays a special time for gathering together. Mike recognizes his parents for instilling in him the drive to succeed, and be a fair-minded businessman – truly a credit to our community and the rice industry in Texas. *

Article and photos by Jay Cockrell.

Mike with his son Darby, who carries his grandfather's namesake.

Pest of the Month

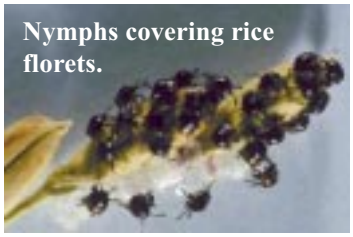
Rice Stink Bug:

Causes 'peck' damage, which can severly lower the quality of milled rice.

Rice Stink Bug Adult

The rice stink bug (RSB), *Oebalus pugnax*, is a key pest of rice in the South. This insect is native to the Gulf Coast but does not occur in California. The insect has piercing-sucking mouthparts, which are used to pierce rice grains and remove the fluids within. Saliva is produced during feeding and acts a lubricant for the mouthparts. The saliva also contains enzymes, which help liquify grain contents for easier ingestion.

Barrel-shaped egg cases of the rice stink bug.


Nymphs covering rice florets.

Adults enter rice fields from surrounding pastures, fallow fields with grassy weeds and sorghum fields. Infestations in rice can be particularly troublesome when nearby sorghum is being harvested. Weedy rice, especially fields with abundant heading barnyard grass, usually harbors high densities of RSB. Frequently, rice fields will have weedy margins so more RSB will be found near the edges of rice fields. Consequently, when sampling for RSB, avoid sampling near outside levees or field roads. Move in at least 60 feet before sampling.

After entering heading rice fields, RSB adults mate and females lay barrel-shaped eggs in two rows of about 10 to 50 eggs total. These eggs are green when first laid but turn darker before hatching. Normally, eggs are laid on foliage or grain on panicles. Eggs hatch in about 1 week and give rise to 1st instar nymphs or immatures, which are small and reddish-black in color. The insect passes through five instars with each stage larger than the preceding. The 5th instar is tan with red and black markings on the abdomen and possesses wing pads. The nymphal stages last about 2 weeks followed by the adult stage. Adults are triangular shaped, tan and have outward-projecting spines on the thorax. Research has shown that adults do much more damage than nymphs, so only adults need to be counted when sampling to determine if insecticide treatment is necessary. RSB damage rice by reducing grain quality. Feeding can introduce microorganisms which cause a discoloration of the kernel called peck. In addition, feeding can produce a fracture in the grain which can cause it to break when milled. Research has shown that RSB do not reduce yield, given populations normally encountered in a typical Southeast Texas rice field. Rice that is heading and in milk is more susceptible to damage than rice in the dough stage. Thus, economic thresholds are lower in heading/milk stage rice. See the 2001 Rice Production Guidelines for economic threshold information (pp.39-40). Several insecticides are recommended for control (2001 Rice Production Guidelines p. 41). If you choose to apply an insecticide with little residual activity, be sure to resample fields soon after application in case adults from outside the treated field cause a re-invasion. For more information contact Dr. M.O. Way at 409-752-2741 ext. 2231 or email moway@aesrg.tamu.edu. *

Article and photos by Beaumont Station Entomologist Dr. M.O. Way.

High Yielder's Tips

This month's tips come from comments made at the February 2000 High Yielders meeting.

During the early period of grain fill, rice is particularly susceptible to damage from stink bugs. Monitor fields at least twice a week and treat if necessary. *See Pest of the Month page 10*. Water management remains critical throughout grain maturation. Maintain full flood until the day you drain for harvest. Mike Burnside's rule of thumb for drain time: From first head emergence, add 45 days then subtract 14 and drain on that day. If you are planning to ratoon, closely monitor grain moisture, but try and harvest when the field has dried sufficiently to minimize rutting by machinery. Don't let the fields dry out too much, though, or it will hurt ratoon yield.

The excessive rains that rice growers on the east side have experienced over the past few weeks may have greatly reduced the amount of applied nitrogen that is available for the rice plants to take up. If your fields have been flooded, you might consider applying additional nitrogen. *

Legislative News

A Summary Of The 77th Legislature and Developments Affecting Texas Rice Producers

Excerpted from a June 19th report by W. Shayne Woodard

The 77th Legislative Session concluded on Sunday, June 17. Rumors had been circulating in Austin that Governor Perry was going to surpass the old record of 40 vetoes set by Governor Bush, but everyone was surprised that he would more than double that number by vetoing 82 bills.

Several bills focusing on rural Texas made their way through the legislative process. Legislation creating the Office of Rural Community Affairs passed; a bill creating the Rural Communities Health Care Investment Program to attract and retain rural health care professionals became law and several agricultural bills focusing on rural Texas made their way through the process.

Every 10 years, after the population census is completed, the Texas legislature redraws the boundaries of the Texas House of Representatives, the Texas Senate and the Texas delegation of the United States Congress. While the Texas House of Representatives voted a redistricting bill for House districts out of the full House on a very close vote, the Senate could not muster the 21 votes needed to push a Senate redistricting plan out of the Senate. With the failure of the legislature to pass a House and Senate redistricting plan, the responsibility will now be on the shoulders of the Legislative Redistricting Board (LRB). The LRB is composed of four Republicans and one Democrat.

The Legislature approved a $113.8 billion state budget for the 2002-2003 biennium, an 11.6 percent increase over the 2000-2001 figure. The members of the Senate laid out four priority areas. They are health and human services, state employee pay, public education and school employee health insurance, and higher education. A large portion of the Texas budget focuses on health and human services and education. Millions in new funding requests were made to the budget committees - including $2.2 million for the Ag Experiment Station for Wildlife and Environmental Research. Unfortunately, this budget request was not funded; however, the legislature did provide limited funds for the Texas Agricultural Experiment Station to use at their discretion.

Acting Lt. Governor Bill Ratliff, R-Mt. Pleasant surprised everyone by announcing that he had changed his mind about running for a full term. Within 24 hours of Ratliff making his announcement on Tuesday, June 5, candidates were coming out of the woodwork. Announced candidates include: Senator David Sibley, R-Waco, Supreme Court Justice Greg Abbott, R-Houston, Land Commissioner David Dewhurst, R-Houston, John Sharp, D-Austin/Victoria and Gil Coronado, D-San Antonio. This will be a wild and very expensive race. Some project this election to cost $25 to $30 million over the life of the primary and general election next year. The job pays $600 per month.

SCR 54 by Bernsen, D-Beaumont, urging the Congress of the United States to consider the removal of trade, financial, and travel restrictions relating to Cuba, was passed by the Texas Senate and the Texas House of Representatives. However, when sent to Governor Perry, the former agricultural commissioner neither signed nor vetoed the resolution. Normally, when a bill is not signed, it becomes law, but this is a resolution. Still, according to the Texas Constitution, the resolution will be forwarded by the Secretary of State to President Bush and members of congress for inclusion in the official congressional record.

Senate Bill 2

Senate Bill 2, referred to as the Omnibus Water Bill, creates a 13 Member Texas Water Advisory Council comprised of representations from the Texas Natural Resources Conservation Commission (TNRCC), Texas Water Development Board (TWDB), Texas Parks and Wildlife Department (TPWD), Texas Department of Agriculture (TDA), General Land Office (GLO), 3 State Representatives, 2 Senators & 3 Public Members appointed by the Governor. The bill contains several key components. It clarifies that movement of desalinated ocean or bay water could not be considered an interbasin transfer, and it provides definitions of "agriculture," "agricultural uses" and "nursery grower." A major feature of the bill is its moving agricultural uses of water up to the same category as industrial uses. Equally important it preserves the existing law relating to the junior rights status of

continued on next page

Legislative News continued...

interbasin transfers, and it provides a process for conflict resolution between a groundwater conservation district management plan and the regional water plan.

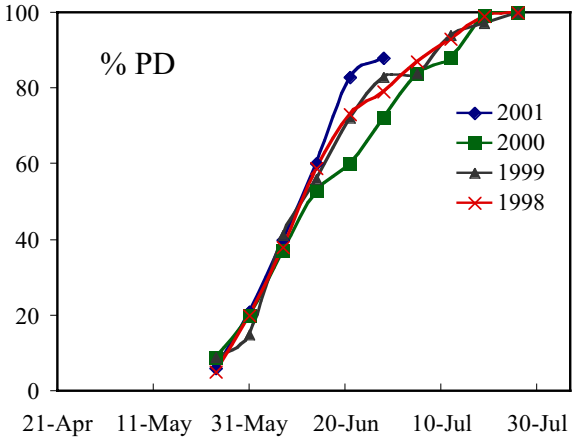
SB 2 clarifies that groundwater districts may regulate spacing and production of wells based on tract size and distance from property lines. It also provides a process for appeal of a groundwater district management plan if it is in conflict with the state water plan, and provides a process for resolution of such conflicts. The bill includes the groundwater district permit exemption language agreed upon by the Consensus Groundwater Stakeholders group, and it maintains a districts' ability to exempt wells and allows for an export fee to be assessed on any water withdrawn from exempted wells, if that water is transported for use outside the district. Exemptions exist for wells producing less than 25,000 gallons per day if for domestic or livestock or poultry uses, but with the exemptions limited to wells on tracts of land larger than 10 acres.

SB 2 clarifies that if other existing permitted users are subject to periodic reevaluation of amount of allowed production (such as a five-year permit renewal process) to accommodate changing conditions of the aquifer, then a 30-year export permit term would also be subject to such a periodic reevaluation of permitted amount, if additional factors warrant. It also authorizes groundwater districts to assess production fees, to be based on the amount of groundwater authorized to be withdrawn or on the amount actually withdrawn.

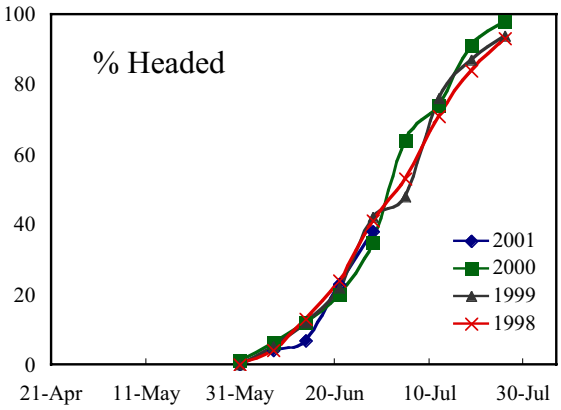
Note: All bills can be viewed at: www.capitol.state.tx.us. For additional information on any bill contact swoodard@worldnet.att.net.

Rice Crop Statistics Report

Heat Accumulation: The accumulation of heat units above 50ºF at the Beaumont Center for the 2001 season (2354ºD) is similar to what was accumulated to this date in 1998 (2349ºD) and 1999 (2350ºD), but slightly greater than in 2000 (2324ºD).



PD: As of June 28th, 88% of the rice belt was at PD. This is 5-16% ahead of the three previous years.



Headed: As of June 28th, 38% of the rice belt was headed. This is 3% ahead of 2000, and about 4% behind 1998 and 1999.

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