

# Texas Rice

Texas A&M University System Agricultural  
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In many Asian languages the term for 'rice' is synonymous with 'food' or 'life', which indicates the importance of this ancient grain. Worldwide, 23% of all calories consumed come from rice. In some countries such as Cambodia, that number may be as high as 80%. In the U.S. only 8% of our total calories come from rice, but that number is increasing every year as Americans become more health conscious and strive to incorporate more grains and vegetables into their diet.

If you are interested in adding more rice to your diet, but have grown weary of the same old things (rice and gravy - beans and rice - chicken and rice), look beyond our borders to the rest of the rice growing countries for ideas. There are as many ways to cook rice as there are people who eat it, and the vast array of spices used to flavor rice dishes will delight your senses.

Considering the earliest origins of rice cultivation, a culinary tour of the rice growing countries should properly begin in the east.

## Asia

Asia produces 485 million tons of rice annually, with the major countries being China, India, Indo-

## Rice Around the World: A Culinary Tour



nesia, Thailand and Japan. In these areas rice is the mainstay of the diet and is often eaten for breakfast, lunch and dinner. Favorite seasonings include lemongrass, ginger root, peanut oil, chili peppers, cinnamon, saffron, nutmeg, mace, cloves, cardamom and curry to name just a few.

From China, this is a spicy twist on a classic recipe.

### Curry Fried Rice

- 4 c cooked rice
- 2 c diced pork & chicken
- 1 tbsp soy sauce
- 1/2 tbsp cooking wine
- 1/2 tsp cornstarch
- 2 large eggs
- 1/4 c cooked green peas
- 2 spring onions, chopped

- 1 fresh chili pepper
  - 2 cloves garlic
  - 1/2 stalk lemongrass
  - 1 tsp curry powder
  - 1/2 c sesame oil
  - Salt to taste
  - cilantro for garnish
- Marinate pork and chicken in soy sauce, wine, and cornstarch at least 10 minutes. Heat 3 tbsp oil; add marinated meat and cook on high heat; keep stirring until well done. Add green peas and cook for a minute. Set aside. Heat 1 tbsp oil; add green onions, garlic, chili pepper, lemon grass and curry powder. Sauté lightly, then push vegetables aside and pour in beaten egg. Let the egg set slightly, then add cooked rice, stir together with vegetables and mix well. Mix in meat and peas. Garnish with cilantro and serve immediately.
- Courtesy of Dr. Xinghua Lai.*

From India, using a sweet or hot curry blend depending on preference.

### Rice with Cauliflower

- 2 c rice (preferably Basmati)
- 1/4 c butter
- 2 onions, sliced
- 4 cloves garlic
- 1 lb cauliflower, cut into pieces
- 1/2 tsp black cumin seeds
- 1 stick cinnamon
- 1/2 tsp curry powder
- Salt to taste

continued on page 10

## From the Editor...



A custom in many parts of the world is to celebrate the plentiful harvests made possible by the toils of men and women involved in agriculture. Harvest feasts have undoubtedly been in existence since the dawn of human civilization. When societies were more communal in their structure, each family would contribute by preparing their favorite dishes, including food made from grains, greens, roots, fruit, nuts, honey, milk and cheese, meat from domesticated animals, and meat from various game animals, fish, and shellfish. Historically, such feasts occurred in the late summer or fall, not surprisingly following harvest. In this issue of *Texas Rice*, we shift things a bit and in our cover article present gourmet delights from around the world that use rice as a major ingredient. If you would like us to print your rice recipes in future issues of *Texas Rice*, please mail or email them to me. We would be glad to share them with our readers.

On a more serious note, in those parts of the world where food is inexpensive and plentiful, most people give little thought to how food is produced. I was recently approached by a parent in Beaumont who was surprised to find that rice is an important crop in southeast US. Similar experiences that I have had through the years suggest that an increasing percent of our population is disconnected from our agricultural roots. When food is discussed, it is often when family or friends gather around dinner tables or restaurants, or during discussions about the latest bargains in the food section of the local supermarket. An increasing percent of our society takes US food production for granted. To many people, it does not matter to them where food comes from, only that it is inexpensive and abundant. What many in our country do not see is how blessed we are to have such plentiful food at such a remarkably low price. While Americans spend an average of about 12% of take-home pay on food, in most parts of the world, the amount of money spent on food is double or even triple this amount.

When we think about places in the world where food is less abundant, our thoughts often go to countries of the world where starvation is periodic at best

and near ever present at worse. In such countries, the issue is often as much one of having sufficient money to buy food as it is one of having food available to buy. As we move up the economic-rung to the affluent countries of Western Europe, parts of South America and increasingly parts of Asia, we see a major increase in the availability of different types of foods. Markets often approach the US in terms of availability of fruit, vegetables, grains, and spices. But unlike the US, we do not see as great of a decrease in the cost of food as one might expect. An average family in a Western European country, for example, spends anywhere from 20%-30% percent of their income on food, considerably more than what is spent for food in the US. Why is this the case? Many Western European countries have standards of living that are not too different than what is found in the US. A few even surpass the US in this regard. Then why is food so much more expensive in the US?

One can look at the structure of agriculture in the US, Canada, Australia and increasingly in parts of South America, to explain why the type of agriculture practiced in the US is so successful. Basically, it is an issue of economy of scale combined with the presence of a free market infrastructure. Given existing market prices, the economy of scale offered by large-scale farming is what has kept many US farmers financially solvent (more on this when we discuss economics of agricultural in a later issue of *Texas Rice*). It is also what allows US agriculture to have one of the most cost-effective production systems.

continued on back page...

### Inside This Issue

Cover Story:

*Rice Around the World: A Culinary Tour*

Industry Profile: Dick Ottis .....	3
Rice Belt Warehouse, Inc .....	5
Researcher in the News: Lee Tarpley .....	7
TRIA Regional Visits .....	9
Licensing of Rice Varieties .....	13
Highlighting Research and Funding .....	14
State, National and International News .....	15
2002 Rice Crop Update .....	16

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## Industry Profile... Dick Ottis at Rice Belt Warehouse

*Have you ever heard that the best things in life are free? Well, that's what Ella Ottis thought on the birth of her fourth son.*

After 3 boys in a row, Ella and Tom Ottis were ready for a girl. The old country doctor that delivered all the Ottis children told Ella he was sure she was carrying a girl, but Ella thought different. The doctor was so confident it was a girl, he made a wager with the expectant mom that if it was a boy the delivery would be free, but if it was a girl he would charge her double. Ella took that bet, and then gave birth to her fourth son, Richard James Ottis. (Ella eventually did get her girl, though, but the old doctor wasn't willing to make any more bets.)

Dick Ottis grew up on a rice farm. His grandfather, John, had moved from Oklahoma in 1910 and settled in the small town of Wadsworth, just south of Bay City. John Ottis had seven boys (Dick's dad Tom was the youngest) and three girls, and all of his boys as well as a son-in-law farmed rice in Matagorda County. In 1943 the Ottis Bros. Grain Elevator was completed, and the second rice dryer and elevator in Texas was opened. The Ottis brothers also broke new ground with the use of mechanized combining. At that time, mills were skeptical about this 'new' way to handle rice and many would not accept grain processed in this manner. By 1948, though, 90% of the rice crop in Texas was combine harvested and commercially dried.

According to an article that ran in the Houston



Dick and his beautiful wife Caroline, college sweethearts and married for 34 years.

Post *Parade* magazine in October of 1948, "the Ottis brothers all have their own equipment, but the combined mechanical fleet of the corporation - \$116,000 worth of combines, trucks and tractors – works in unison to harvest the crop until the last grain has gone through the dryer." An example of true teamwork, much like what you find today in many rice farming families across Texas.

Dick remembers the early days, before the advent of chemical herbicides, when he spent countless hours wading through rice fields rouging out weeds. All the Ottis children helped out on the farm, in between school and extracurricular activities. After high school, Dick went to Wharton Junior College for two semesters before transferring to St. Edwards University in Austin, where his dad had attended back in 1928. His mother Ella also attended college, on a music scholarship, and was quite skilled on the piano and organ. Dick recalls many joy-

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This photo appeared in the October 1948 issue of *Parade* magazine in the Houston Post.

At day's end the rice combines are lined up in the fields with military precision and the Ottis brothers inspect them.

## Dick Ottis continued...

ful hours spent listening to his mother play the piano and sing with her husband. “Dad was a baritone, and mother could harmonize beautifully with him,” Dick remembers. “I’ve always liked to sing, and I guess that’s the reason why.”

While attending St. Edwards, Dick was *re*-introduced to Caroline Janik, a local girl from Lane City near Wharton. After being introduced by mutual friends at a party, Caroline mentioned that they had met before at a dance in high school. Dick said he didn’t remember her. (Can you believe he said that?!) Luckily for Dick, Caroline got past the infamous start and they were married in July of 1968, just after Dick finished his BBA in Marketing.

After college Dick went to work for Bossley Growers (now BU Growers) for two years and then went to work at Mauritz Storage Company in Ganado. In 1972, Rice Belt Warehouse (RBW) bought Mauritz and got Dick Ottis thrown in for free. Well, not exactly for free, but it turned out to be quite a bargain!

While living in Ganado, Dick was very active in local government. He served on the first Appraisal District Board back in the mid 70’s and was the mayor of Ganado from 1976-78. He was the president of the Jackson County Chamber of Commerce from 1981-82, and in 1983 they honored him with the Citizen of the Year Award. “That was quite a shock,” recalls Dick, “they were talking about this person who had been chosen, where he grew up and went to school, and I thought, that sounds like me!” Rounding out his public service career, Dick served on the Ganado School Board from 1985-88.

In 1987, after 15 years with RBW, Dick was named Vice President of Operations. The next year he moved his office to the headquarters in El Campo, but continued to live in Ganado. Seven years later, in 1994, Dick was promoted to Executive Vice President and CEO of the corporation. That year he and Caroline moved to El Campo, so that Dick would not have the daily commute from Ganado. Caroline and Dick have two girls, Carrie and Jamie, along with son-in-laws Craig and Troy. Carrie and Craig have twin babies, Hunter and Hannah, now 18 months old. Needless to say, the little ones are a great source of pride for their grandparents.

Since becoming CEO at Rice Belt Warehouse, Dick and his group of managers have made innovative de-

isions that have brought more income to the corporation at a time when many businesses in the rice industry are struggling for survival. One example is the leasing agreement with Formosa Plastics, whereby space at RBW storage facilities is used to store plastic products that the company has produced but not yet sold. Another is the arrangement with Helena Chemicals to treat and bag soybeans at the El Campo location. Now there is an inoculant that can be put on thirty days in advance, instead of 24 hours, so the treated seed can be bagged and sold ready to plant. With very little additional investment RBW is capitalizing on existing space and equipment to boost stockholder income. Still another innovation is the storage of milo and corn at the Bay City, Edna, Ganado and RoSharon divisions. Again, this takes advantage of existing facilities to increase revenue.

Dick is very passionate about his work, and dedicated to the producers they serve. Says Dick, “My job is easy compared to the farmers, those guys do the really hard work.” As expected, Dick is quite active in governmental affairs regarding the rice industry and he often meets with congressional officials to generate support. One of his pet peeves is the trade sanctions that our government imposes to try and punish other countries for various misdeeds. Dick believes this doesn’t hurt them as much as it hurts our own farmers. “Any time you take away an export market, it’s going to negatively affect our growers,” he explained, “and the countries targeted still get the food from somewhere else, so obviously the sanctions are not an effective tool in dealing with problem governments.”

Another area Dick is quite outspoken about is the issue of government subsidies to farmers. He is angry about the criticism farmers receive, emphasizing that “it is really the consumer who is being subsidized, as the government supports result in much cheaper food at the supermarket. People just don’t realize the capital investment it takes to farm, and how vulnerable growers are to market fluctuations.”

Dick is very proud of the RBW staff of employees. He admires their commitment, and the skill they devote to the industry. He also recognizes and appreciates the dedicated individuals in the rice industry who came before him, and that continue to make Rice Belt Warehouse, Inc. a growing success. ✱

# Rice Belt Warehouse:

## *Serving Texas Rice Producers for 40 Years*



**R**ice Belt Warehouse (RBW) was incorporated in the fall of 1962, with a group of El Campo rice farmers comprising the core group of stockholders. They saw a need for farmers to have more control over where and when they sold their rice. Without adequate drying and storage facilities, farmers were often forced to sell ‘distressed’ rice at a much lower price to the mills simply because there wasn’t any place to store the crop. Melvin Parker Jr. was hired as the first CEO of the new corporation.

The original location is in El Campo, although there are currently six RBW divisions. The El Campo location was built in 1962, with the second dryer added in 1965. The Bay City plant came next, with construction completed in 1968. In 1971 they purchased a mill and storage facility in Alvin, and although the mill there was recently closed due to financial considerations, the storage and drying part is still operational.

Next came the facility in Ganado in 1972 (when they got Dick) and then the one in Blessing was ac-

quired in 1974. The facility in Edna was purchased in 1976, and as with all the other RBW divisions, extensive renovations were undertaken to fully modernize the facility. In 1993 RBW purchased the seed rice facility across the street from the El Campo headquarters, and remodeled it into a state-of-the-art seed rice processing plant.

In addition to drying and storage, RBW recently added marketing assistance to the services offered for growers. A number of years ago many sales offices sprang up in the Texas rice belt, often in connection with drying and storage facilities. Dick Ottis thought this was an innovative idea, and possibly a way to attract more clients for the corporation.

A marketing program was set up on the RBW website, where mills could go online and bid on lots of rice. This worked well for a time, but Dick found he could not devote a sufficient amount of attention to the marketing end. That’s when he got together with Jay Davis at East Bernard Rice Marketing, and the men decided to team up.

According to Dick, it has been very beneficial for everyone involved. “Jay Davis and Andy Hewes work hard to sell producer’s rice on a daily basis,” said Dick, “they do some very innovative things for our growers in an effort to get them the best possible price for their crop.” The marketing team will customize programs for farmers, and help them devise the best plan to take advantage of market opportunities and government assistance. Jay comes to the El Campo location every Tuesday to meet with growers in person and discuss options for marketing their rice.

These days much of RBW rice goes to domestic sales, although approximately 200 rail cars a year of rough rice leave the Blessing facility for sale in Mexico. Currently RBW is working with the Port Authority in



Rice samples being stored in the RBW lab. Every lot that comes in is sampled, dried and milled for grading.

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## Rice Belt Warehouse continued...

Point Comfort to devise plans for constructing a transfer facility for rice and other commodities.

Over the years, RBW has returned much to our rice growing communities and the industry in general. Dick Ottis, through RBW, participates in a buyers group that supports young people involved in 4-H and FFA. They participate in the sales auctions at fairs in Wharton and surrounding counties. Much of the meat is donated to charities, with the remaining going back to the 4-H and FFA groups for fund raising barbecues.

In addition to this, Rice Belt Warehouse has donated thousands of dollars over the years for research and development in the rice industry. Most recently, they donated \$50,000 to the B. Jack Wendt '44 Texas Rice Research Foundation Endowed Chair. Proceeds are used to support rice research at the Beaumont/Eagle Lake Centers, as well as wetland and water conservation studies. As Dick put it, "We can best help our farmers by making sure this valuable research continues to be well funded. It's a way for Rice Belt Warehouse to give something back to the industry."

With all the innovative ideas and hard work, it seems certain that Rice Belt Warehouse will weather the storm and continue to provide excellent services for our Texas rice farmers. \*



Bagging machine used to package innoculated soybeans for Helena Chemical Company, a profitable sideline with very little additional investment.



Dick explaining the new state-of-the-art computer system at the El Campo facility. The computer continually monitors grain moisture, and then makes heat and air flow adjustments as necessary to insure proper drying.

### Rice Belt Warehouse Divisions

<http://www.ricebelt.com/>

P.O. Box 1545 Manager: Jim Pavlik  
Hwy 59 W. El Campo, TX 77437  
979-543-6221 or 800-759-2387

P.O. Box 82 Manager: John Dippel  
Hwy 35 S Bay City, TX 77414  
979-245-7396 or 800-585-3097

P.O. Box 458 Manager: Andy Jasek  
Railroad Ave. Blessing, TX 77419  
361-588-6521 or 800-585-3045

P.O. Box 284 Manager: Rodney Tegeler  
211 E. York Ganado, TX 77962  
361-771-3371 or 800-363-0828

P.O. Box 729 Manager: Ralph Novosad  
1101 W. Main Edna, TX 77957  
361-782-5285 or 800-367-1913

P.O. Box 1446 Manager: Johnny Dunham  
Alvin, TX 77512 281-331-6176

## Researcher in the News...

*Many children that grow up in military families have difficult memories of moving around a lot. Lee saw things differently, and chose to focus on the many opportunities that were ahead.*

Lee's dad was an Education Specialist with the United States Air Force, and his mom worked in civil service as a librarian. Lee was born in Alexandria, Virginia, but the family moved to San Antonio when Lee was seven. Although he changed schools several times, Lee was an excellent student. He played little league baseball and soccer in high school and college, and had typical childhood ambitions of playing professional sports.

After graduating, Lee enrolled at St. John's, a Liberal Arts college in Santa Fe. With a strong humanities background from both parents, this seemed like the most likely path. By the end of his freshman year, though, Lee began to re-think his decision to pursue a liberal arts degree. Lee recalls, "I wanted to do something more applied, something that would have a greater impact. Not many things are more important than the production of food, so I decided on plant science." Lee spent his sophomore year at the University of Texas at San Antonio regrouping, and exploring possibilities as a Biology major. His parents were very supportive, and encouraged Lee to follow his own path.

Lee went on to the University of Wyoming and obtained a BA in Botany. He then enrolled at Fresno State and began pursuing his Masters in Plant Science, with a Viticulture option. After completing his MS, Lee went on to Texas A&M and obtained his PhD in

## Plant Physiologist Lee Tarpley



Plant Physiology, finishing in 1993. It was during his time at Fresno State that Lee met Ming Chen, a fellow student working on her Masters in Ag Chemistry. They were married in 1988, while both were pursuing their PhD at Texas A&M.

While waiting for Ming to complete her PhD in Entomology, Lee took a series of post doctorate positions at A&M. The first was with Don Vietor, where they investigated the cellular and metabolic pathways of sucrose movement. Specifically, they were looking at the movement from transport vessels to storage cells in sorghum stems.

The next post doc position was with Tom Cothren, and was jointly sponsored by several agrichemical companies. The objective was to determine the physiological basis for consistent efficacy of several cotton desiccants and defoliants. Both are chemicals used by cotton growers to clear away leaf matter so the bolls can be machine harvested. Desiccants dry the leaf up, while defoliants cause a hormonal change that initiates leaf abscission. The problem was that farmers were not getting consistent results using the products, and excessive amounts of the chemicals were being applied. The researchers were able to make recommendations on timing and tank mixes that improved performance of the products.

After this Lee went to Starkville, MS and did a post doc with the USDA in cotton to investigate how sucrose moves from the leaves into the developing boll.



Marcus McCabe and Ronnie Porter, checking on seedling development in the Physiology Project research plots.

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## Lee Tarpley continued...

The objective was to understand the restraints to good boll filling, and overcome the obstacles. Soon after, Lee became co-investigator on a precision ag grant and began working for Mississippi State University in a 100% research position. The project involved remote sensing of crops using satellite or aerial photos. The team set out to identify patterns of absorbance of dif-



Lee with graduate student Tesfamichael Kebrom.

ferent wavelengths of radiation (both visible light and near infrared) by the crop canopy. The objective was to relate the pattern of absorbance to the composition of nitrogen, carbohydrates and water present within the plants. This would give farmers another management tool in large-scale crop production.

In January of 2001 Lee came to work at the Texas A&M Research and Extension Center in Beaumont as the rice Physiologist. Broadly speaking, his project goals are to use plant physiology research in support of production management and variety improvement.

Some specific projects include:

- Using knowledge of rice plant physiology to enhance management, such as the use of plant growth regulators (PGR's) to manipulate the timing and extent of ratoon tillering.
- Studying in detail the nature and mechanisms

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## Spotlight on Support

Ronnie Porter – Research Assistant

Ronnie grew up in Nederland, TX the oldest of 6 children. He participated in Boy Scouts throughout his youth and eventually became an Eagle Scout. After high school he attended Lamar University in general science studies. In 1965 Ronnie joined the National Guard and eventually served 10 years. During that time he attended Officer Candidate School and became a 2<sup>nd</sup> Lieutenant, and eventually earned the rank of Captain before finishing in 1975. He also graduated from 'Jump School' to learn skydiving and now has over 2800 jumps. Ronnie and his wife Sandra have two girls, Gretchen and Amy who are both married. As Research Assistant for the Plant Physiology Project, Ronnie supervises part time workers, prepares fields and maintains research plots. He also works in the lab analyzing samples and processing data.

Tesfamichael Kebrom – Graduate Student

Tesfamichael was born in Asmara, Eritrea in East Africa. He got his bachelors degree in Plant Science at the University of Asmara, and his Masters at the University of Reading, UK, in Crop Physiology. He is a lecturer in Plant Physiology at the University of Asmara. Tesfamichael is currently working on his PhD at Texas A&M University, and Lee Tarpley is his major professor. Tesfamichael is engaged to Yordanos Bisrat, also a native of Asmara, although they first met while attending school in the UK. After finishing his PhD the couple will move back to Asmara, where they will both be faculty at the University. He conducts research with the Plant Physiology Project to improve the consistency in rice ratoon tillering.

Marcus McCabe – Student Worker

Marcus has been with the Physiology Project for 9 months. He is a native of Spurger, TX and grew up on a farm that has been in his family for over 100 years. He is currently attending Lamar University and is engaged to be married in July. His fiancée, Brianne Halling, is on full scholarship for volleyball at the University of Alaska. After she graduates in December the couple plans on moving back to southeast Texas for Marcus to finish his degree at Lamar. Marcus' duties include field preparation, planting, maintaining research plots, data collection and seed preparation. Although he will be leaving soon for Alaska, Marcus plans on returning to work at the Beaumont Center next spring.

Alicia Delgado – Student Worker

Alicia is a student at Texas A&M University working towards a business degree. She was born in Houston but grew up in Silsbee, where her parents still live, providing 'home base' for Alicia when she comes back to work during the summers. During the school year she works on campus in the Food Science Lab for Dr. Lloyd Rooney. This will be her third summer to work at the Beaumont Center; the first was in Varietal Improvement and then last year for Dr. Tarpley in Plant Physiology. Alicia enjoys outdoor sports, especially tennis, and weight training. Her summer duties in the Plant Physiology Project will include maintaining research plots, data collection, sampling and seed processing. \*



of accumulation and remobilization of carbohydrate and nitrogen reserves in various parts of the rice plant.

- Providing support for variety improvement by enhancing the ability to do large-scale biochemical screening assays. This involves first identifying the biochemical trait of interest, such as the set of enzymes that control carbohydrate movement.
- Investigating the role of environmental parameters in plant physiological processes. Some examples include the effect of water quality on plant development, determining how certain wavelengths of light change plant development, and measuring photosynthesis and respiration on a per leaf basis and canopy level basis.
- Identifying and predicting the incidence of catastrophic physiological events, such as poor seed set due to hot weather or the failure to get good ratoon tillering. The objective is to understand these phenomena in order to make management adjustments that may avoid the problems. One example is the use of certain compounds that would give the plant increased tolerance to hot weather during flowering and grain fill.
- Working with Mark Holtzapple, a Chemical Engineer at Texas A&M, to research the possibility of using rice straw to produce industrial feedstock chemicals. The objective here is to reduce dependency on oil, while at the same time providing another income source for rice farmers.

In all of Lee's research projects, he puts great emphasis on working with other scientists to capitalize on areas of expertise that will enhance favorable research outcomes. In addition to research, Lee is teaching the graduate course, "Molecular and Physiological Bases of Crop Improvement" at Texas A&M in College Station. The students come from agronomy, plant breeding, and biotechnology research programs at TAMU.

Lee and Ming live in Beaumont with their two

children, Will (9) and Lara (4). Will plays league soccer, like his dad did, and is a very bright student. When I asked about the challenges in raising children when both parents have research careers, Lee said it does take a lot of coordination. "We both share parental responsibilities, and when one of us is swamped with work, the other steps up," says Lee, "Ming and I have always been very supportive of each other's work."

The Beaumont Center is fortunate to have such a dedicated plant physiologist on board, and everyone has high expectations for the contributions Lee will make in the area of rice research. \*

### TRIA Plans Regional Visits

Jim Stansel, Vice President of the Texas Rice Improvement Association (TRIA); Ted Wilson, Beaumont Center Director; and Robert Weatherston, TRIA Foundation Seed Manager will be touring the rice belt to meet with TRIA Directors and rice producers to discuss TRIA programs and future plans for the Association. The meetings are scheduled as follows:

May 14, 1pm, Beaumont Center

May 15, 2pm, Rice Marketing Office, East Bernard

May 16, 9am, Rice Belt Warehouse, El Campo

May 16, 1pm, BU Growers, Bay City

Producers and processors are encouraged to attend. \*

### Rice Industry Loses Leader

John W. Hancock Sr., a leader in the country's rice industry and a long-time member of the Lower Colorado River Authority, died of heart failure on April 23<sup>rd</sup> in a Houston hospital. A resident of El Campo, Hancock was also involved in banking and was a member of the El Campo City Council. He was an accomplished pilot, who first learned to fly in high school and then went on to serve as a flight instructor in the Navy. When WWII started, he was transferred and began flying transport aircraft. After the war, Hancock returned home and managed the El Campo Rice Milling Company. He was very active in the industry, and did much to stimulate international sales of U.S. grown rice. The scientists and staff of the Beaumont/Eagle Lake Centers wish to offer their condolences to the surviving family and friends of John Hancock. \*

## Rice Around the World continued...

1/2 tsp ginger, chopped  
 2 green chilies (optional)  
 1/4 c sour cream  
 4 c water  
 1/4 c roasted almonds  
 2 crushed cardamoms  
 Fresh cilantro leaves  
 1 tomato, sliced

Clean rice and soak for 30 minutes. Heat butter; sauté one onion and then set aside for garnish. In the same pan, sauté cauliflower until half-cooked. Remove from pan; set aside. Sauté another onion and garlic, then add all dry spices. Drain rice; add to onion mixture and sauté for a minute. Add cauliflower, ginger, green chilies, and salt. Continue sautéing for 5 minutes. Add water and sour cream. Cover and cook on low heat until done. Garnish with sautéed onion, roasted almonds, fresh coriander leaves, and sliced tomato. Serve with yogurt, curry, sweet and sour chutney, or pickles. *Reprinted from Home Chefs of the World.*

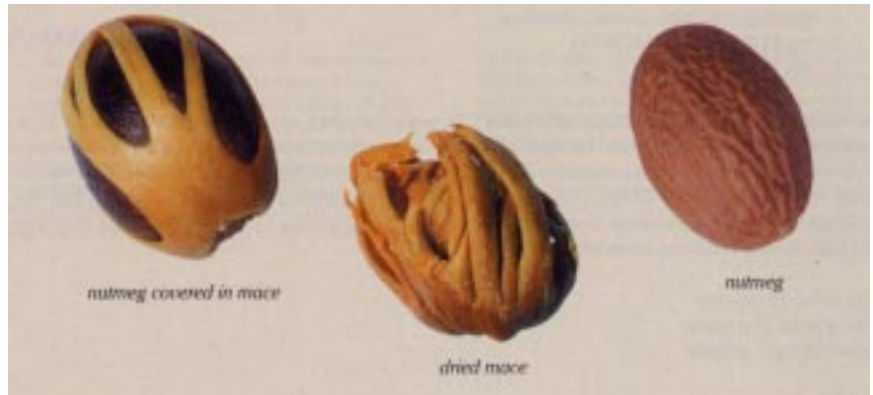
### Africa

Africa produces 15 million tons of rice annually, mostly from Egypt and Nigeria where the crop is irri-



Saffron is the most expensive spice in the world, as harvesting must be done by hand. The strands of saffron are the dried anthers of the fall blooming crocus.

Saffron is used extensively in Asian cuisine, and imparts both a distinct flavor and bright yellow color to the food.



Nutmeg, like pepper, is one of the oldest spices with cultivation dating back over 1000 years. The tree is native to Moluccas, in the 'Spice Islands'. The tree produces two spices: nutmeg, which is the inner seed kernel of the peach-like fruit, and the softer flavored mace, which grows as a lace-like covering over the nutmegs outer shell.

gated. Upland NERICA lines are grown in many of the small West African countries. The rice species that originated in Africa is *Oryza glaberrima*, predominantly a dark bran rice. Asian rice, *Oryza sativa*, reached the African continent about 500 years ago, and accounts for much of what is grown in the Eastern region. However, the West African Rice Development Association (WARDA) has developed the NERICA ('New Rice for Africa') lines by crossing the disease and insect resistant *O. glaberrima* with the high yielding, high quality *O. sativa*. The NERICA lines are rapidly gaining popularity in the Western areas.

From Egypt, *Mahshy* is made with the short grain rice preferred in that country.

### *Mahshy* (Rice Stuffed Eggplant )

1 large eggplant  
 1/4 tsp salt  
 2 tbsp butter or oil  
 1 onion, chopped  
 2 lb tomatoes, chopped  
 Parsley  
 1/2 c short-grain rice

Salt and pepper to taste  
 1 c chicken broth or beef broth

Wash and core eggplant. Prick with fork, and sprinkle with salt; set aside. Heat butter or oil, sauté onion, add tomatoes and parsley, and sauté for a while. Add rice; stir and mix well. Remove from fire; set aside for 10 minutes. Fill eggplants with rice mixture and place in a deep baking tray or casserole. Pour meat broth over, cover with foil, and bake at 250° F until rice is done. *Reprinted from Home Chefs of the World.*

From Nigeria, a spicy – sweet combination to delight the senses.

### Coconut Rice with Chicken

1 lb chicken  
 1/4 tsp salt  
 dash of black pepper  
 1/2 c sesame oil  
 2 c water  
 2 coconuts, grated  
 2 c rice  
 2 onions, chopped  
 1/2 c tomato paste  
 1/4 tsp hot pepper

*continued on next page*

## Rice Around the World continued...

Clean, wash, and cut chicken into small pieces; marinate in salt and pepper for 15 minutes. Heat oil; fry chicken until brown then simmer in water until tender. Remove meat from broth. Combine broth and coconut; boil for 5 minutes. Wash rice and add to liquid mixture. Continue cooking. Heat 1 tbsp oil. Add chopped onion, sauté for a minute. Add tomato paste, simmer for 5 minutes, and then add chicken. Stir and leave on low fire. When rice is almost done, add chicken mixture. Simmer for 10 minutes. Serve hot. *Reprinted from Home Chefs of the World.*



Cardamom is a pod consisting of an outer shell with little flavor, and tiny inner seeds with intense flavor. Native to India, but a favored spice in African cuisine as well.

### Europe

Europe produces around 2 million tons of rice annually, with most being grown in Spain and Italy. Preferred seasonings include garlic, chili peppers, onion, basil, saffron, oregano, parsley, cilantro, coriander and olive oil.

From Spain, Paella (pie-a-ya) is a classic dish with many regional variations. It was traditionally made in a *paellera*, a heavy wrought iron skillet with two handles, over an

open flame. This is the only method that produces the *socarrando*, a golden brown crust on the bottom of the pan.

### Paella with Shrimp And Sausage

- 1 clove garlic, minced
- 1 tablespoon olive oil
- 1/2 pound hot or sweet Italian sausage links
- 1/2 pound boneless, skinless chicken breast, cubed
- 1 cup uncooked rice
- 1 cup chopped onion
- 1-1/2 cups chicken broth
- 1 (8-ounce) can stewed tomatoes, undrained and chopped
- 1/2 teaspoon paprika
- 1/8 to 1/4 teaspoon red pepper
- 1/8 teaspoon ground saffron
- 1/2 pound medium shrimp, peeled and deveined
- 1/2 cup red pepper strips
- 1/2 cup green pepper strips
- 1/2 cup frozen green peas

Heat garlic and oil in large skillet or *paellera* over medium-high heat. Remove sausage meat from casings. Add chicken and sausage to oil and stir until browned. Spoon off all but 1 tablespoon drippings from skillet. Add rice and onion. Cook, stirring, until onion is transparent and rice is lightly browned. Add broth, tomatoes, tomato juice, paprika, red pepper, and saffron. Bring to a boil; reduce heat, cover, and simmer 10 minutes. Add shrimp, pepper strips and peas. Cover and simmer 10 minutes, or until rice is tender and liquid is absorbed. *Courtesy of the USA Rice Federation.*

From Italy, the classic Risotto is best prepared with Arborio or other medium grain rice. Variations



There are many types of pepper on the market, the color and taste of each depending on the maturity of the berry at harvest, and the curing process.

## Rice Around the World continued...

abound, but the basic technique calls for sautéing the uncooked grains in butter, adding the broth liquid in small increments, and constant stirring. This results in a creamy texture, further enhanced by the addition of parmesan cheese and heavy cream.

### Risotto with Sausage and Shrimp

1/2 pound sweet Italian sausage, crumbled  
1/2 pound medium shrimp, peeled and deveined  
3 tablespoons butter or margarine, divided  
1/2 cup chopped onion  
1 cup uncooked U.S. Arborio or medium grain rice  
1/3 cup dry white wine  
2 cups chicken broth  
1/4 cup grated Parmesan cheese  
Ground white pepper to taste  
1/2 cup heavy cream

Cook sausage in large skillet over medium heat. Remove from skillet; drain on paper towels. Set aside. Cook shrimp in 2 tablespoons butter until it turns pink. Remove from skillet; set aside. Cook onion until soft in remaining 1 tablespoon butter. Add rice and stir 2 to 3 minutes. Add wine; stir until absorbed. Increase heat to medium high; stir in 1 cup broth. Cook, uncovered, stirring frequently, until broth is absorbed. Continue stirring and adding remaining 1 cup broth and 3 cups water, allowing each cup to be absorbed before adding another, until rice is tender and mixture has a creamy consistency. It will take approximately 25 to 30 minutes. Stir in cheese, pepper, cream, and reserved sausage and shrimp. Stir

until mixture is creamy, about 2 to 3 minutes. Serve immediately. *Courtesy of USA Rice Federation.*

### Australia

Australia produces just over 1 million tons of rice annually, but has the highest per acre yields of any country in the world. Rice production is concentrated on the southern tip, and even there it is restricted due to limited water supplies.

### Gold Coast Luncheon Salad

1/2 c diced pineapple  
1 tbsp mint  
2 c cooked rice  
1/2 lb luncheon sausage, diced  
1/2 c mayonnaise  
Salt and pepper to taste

Combine pineapple and mint and toss very well until pineapple is coated with mint. Add rice and sausage with salt and pepper. Add mayonnaise and toss gently. Serve as luncheon dish or as an accompaniment to meat. *Reprinted from Home Chefs of the World.*

### South America

South America produces 20 million tons annually, with Brazil contributing 65% of that total. In Brazil, most of the rice is grown in upland conditions, but some irrigated rice is grown in the southern states. Other rice producing countries in South America include Argentina, Columbia and Peru.



Pepper growing on the vine in Borneo. Farmers hand pick the berries at different maturity stages, while still green for green peppercorns, after they turn red for black peppercorns, and at full maturity for white peppercorns.

### Arroz con Leche (Sweet Rice)

1 c rice  
2 c coconut milk  
3 egg yolks  
2 tsp butter  
1/4 c sugar

Boil rice with coconut milk. When done, add egg yolks and butter. Cook for 5 minutes. Meanwhile, prepare caramel sugar and set aside. Remove boiled rice from fire and spread on a platter. Sprinkle with roasted almonds if desired. Pour caramel sugar over it. *Reprinted from Home Chefs of the World.*

### United States

“Jambalaya, crawfish pie, filé gumbo...” Celebrated in song, rice is without question a mainstay in Cajun cuisine. This is appropriate as the majority of the 8.9 million tons of rice produced annually in the U.S. comes from the Southern states where Cajun food is very popular. The following recipe was passed down from my Cajun grandmother, Ellen Thibodeaux, who was born in Abbeville, Louisiana in 1898. As a child, I spent countless hours in her kitchen learning the art of creole cookery.

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## Licensing of Rice Varieties

As reported in the last issue of *Texas Rice*, a meeting was held between TAES, USDA, TRIA and TRRF representatives to discuss the issue of varietal licensing. The following summarizes the major agreements reached at that meeting.

- TAES will include Texas rice producers in discussions on licensing and marketing rice varieties that are developed in Texas.
- TAES will establish a revenue-sharing arrangement with TRIA and TRRF from intellectual property created with their financial support. These arrangements will be similar to those TAES is developing or has developed with other Texas commodity boards and associations.
- The Texas rice breeding program will use the Plant Variety Protection Act to establish clear Texas ownership of Texas-produced varieties.
- As TAES licenses Texas varieties, the agency will begin such discussions by seeking agreement from prospective licensees that the Texas Rice Improvement Association produces all foundation seed, and at least 50% of all production of the licensed variety is produced by Texas rice producers.
- Once a rice breeder creates and releases a new variety, the breeder should serve as a resource person for the licensing process.
- Texas rice producers will help TAES identify private sector interest in new varieties, and will help move this interest to licensing. This is particularly true of varieties characterized as “niche” varieties.
- The partnership between TAES and the USDA-Agricultural Research Service has returned substantial benefits to the Texas rice industry, and this partnership will be preserved and where possible enlarged.
- TAES should continue discussions and processes to license the rice variety “Bolivar” to one or more private sector interests. The pri-

mary purpose of this effort is to assure that production of Bolivar benefits Texas rice producers with increased acreage, and where possible a premium for harvested grain.

- TAES administration will meet with the TRRF Board and TRIA Board of Directors at least once per year to discuss licensing activities and intellectual property created with support from the Texas rice industry.
- TAES will explore DNA fingerprinting as a routine aspect of describing Texas rice varieties and a basis for establishing ownership of Texas rice varieties.\*

## Rice Around the World continued...

### Mommie’s Shrimp Jambalaya

- 1 lb fresh shrimp
- 4 tbls olive oil
- 4 strips bacon, cut into 1” pieces
- 1 large onion
- 2 chili peppers
- 3 cloves garlic
- 14 oz can stewed tomatoes
- 1 cup long grain rice, uncooked
- 2 1/4 cups shrimp stock
- 6 green onions
- salt & pepper to taste
- fresh parsley

Bring 3 cups of water to boil, add fresh shrimp and cover. Cook for 5 minutes. Remove shrimp to a colander for cooling, reserving liquid. Strain stock and return to pan, cook down to 2 1/4 cups, set aside. To another pan add olive oil and bacon, fry until crisp. Add chopped onion, peppers and crushed garlic. Saute 3 minutes, then add uncooked rice. Stirring constantly, cook until rice becomes translucent. Add chopped tomatoes and stir. Add shrimp stock and simmer, uncovered, over low heat about 15 minutes. Peel shrimp and add to rice mixture. Add chopped green onions and parsley, cook for 5 minutes. Serve immediately.

With all the sumptuous possibilities that abound in rice cuisine, it should be easier to make this nutritious grain a regular part of your family’s diet.\*

*Photos courtesy of Penzeys Spices.*

See back page for suggested reading and resources.

## Highlighting Research and Funding

*Continuation of our 2002 profile of externally funded research projects. These two by the Texas Rice Research Foundation.*



### Integrated Rice Management System for Ratoon Production

Garry McCauley

Texas was once the leading rice producer in the southern United States. Acreage has been sporadically but consistently declining. Rice production developed in Southeast Texas because of the abundance of natural resources and favorable climatic conditions. A primary advantage for the Texas rice growing area is the ratoon crop (RC). Because of the minimal inputs of water and fertilizer, the RC made the economic difference for many Texas rice producers. However, unpredictable yields and increasing production costs, especially water and red rice control, have contributed to major decreases in RC rice acreage. Furthermore, RC yields are highly variable and attempts to predict ratoon crop performance have had only limited success. Evaluation of the impact of factors affecting RC development is needed to maximize and stabilize RC yields.

Current economic conditions have prompted some producers to reduce main crop (MC) production cost by seeking a minimal MC input level. This may be prompting declining RC yields. As MC stubble carbohydrate levels increase so does the RC yield. But this relationship only explains 50 % of RC variability. RC yields increase with lower cutting heights. These results have been repeated for three years across a broad range of conditions and inputs.

More questions have arose such as: 1) Where is the carbohydrate stored? 2) When is it translocated? 3) When and why does RC tiller initiation start? 4) When should the stored carbohydrate be measured? and 5) Is the affect of cutting height on ratoon yield related to light penetration or disease pressure? A TRRF funded project focuses on clarifying these relationships.

Field tests over the last three years have shown that plant density affects each variety differently, with the yield of some being very sensitive to extremely low or high densities, while the yield of others are affected very little by density. Field tests have also shown

that narrow row rice is best with a strong fungicide program and RC production is more dependent on seeding rate than MC.

The above mentioned research has been conducted at one location, on a heavy soil, and using a fall-stale seedbed tillage system. These results must be evaluated on other soil types and with conventional tillage. A limited evaluation of a precision vacuum seeder this year indicated that they were no better than a good, precisely calibrated no-till drill. These results and questions may be extremely important if herbicide resistant and hybrid rice take the seed cost above \$100 cwt.

This research investigates the impact of stale seedbed management on seeding rate, stand establishment, and growth and development of the RC. Conventional tillage research evaluates the impact of MC and RC management and MC nutritional level (carbohydrate accumulation) on RC production. Field verification studies test practical application of seeding rate, row spacing, stand density, and cutting height found effective in small plot research. \*



### Reducing Production Cost Through Innovations in Fertilizer and Water Management

Fred T. Turner, Mike F. Jund and Garry N. McCauley

Reducing rice production costs in Texas would allow Texas rice farmers to be more competitive with other markets. Significant reduction in Texas' rice production cost will likely require major changes in current rice management practices.

This research couples innovations in fertilizer management (improved N fertilizer efficiency and fertilizer coatings on rice seed) with innovations in water management (early flood and all the benefits associated with early flood) to potentially reduce rice production costs.

Most Texas rice farmers are using some of these innovations but not the complete package of cost saving production practices. The proposed package of practices to be evaluated has the potential to significantly reduce application costs, require less flushing, less herbicide, and less irrigation water creating an earlier and more uniform main crop followed by a higher yielding ratoon crop. This research will evaluate the cost saving potential of the entire package. \*

For more information on these projects contact Garry McCauley at 979-234-3578 and Fred Turner at 409-752-2741

## State, National and International News...

Washington, D.C. - U.S. House of Representatives 280 to 141 approval of the 2002 farm bill negotiated by House Agriculture Committee Chairman Larry Combest (R-Texas) and Ranking Member Charlie Stenholm (D-Texas) met prompt praise from President Bush, who urged the Senate to act promptly so he may sign the new farm bill into law.

“The Farm Security and Rural Investment Act of 2002” is the end result of more than two years and dozens of hearings in rural communities throughout the country, and more than 60 days of House and Senate conference to produce one bill balancing conservation, crops, nutrition, trade and rural development into the nation’s comprehensive agricultural policy. The bill is supported by dozens of groups, ranging from the Cotton Council to the National Farmers Union, and from the Food Research Action Center to Ducks Unlimited.

“In addition to desperately needed help for farmers, it contains the largest single increase in conservation funding in history, significant gains for food stamp and nutrition funding, more resources for agricultural research, increased incentives for renewable fuels production, and a strengthened commitment to our rural communities. And it is all accomplished within limits of the budget,” said Chairman Combest.

“First and foremost, this Farm Bill provides a strong safety net for our agricultural producers. The counter-cyclical payments it provides to program crop producers will mean that Congress will not need to provide additional ad hoc income support when prices are in decline,” said Charlie Stenholm, the Committee’s Ranking Member. “Most importantly, it will continue to provide the American people with the most abundant food supply, the highest quality food and the safest food at the lowest cost to the consumer of any country in the world.”

Farmers are facing the fifth year of record low prices and the lowest real net cash income since the Great Depression. As a result, Congress has spent nearly \$30 billion over the last four years in emergency assistance. While desperately needed, these ad hoc programs always left producers and their lenders in a state of uncertainty. There was no ability to use the money efficiently under the previous “Freedom to Farm” law.

One of the primary reasons for acting quickly on the farm bill was to end dependence on ad hoc legislation. Chairman Combest noted that today’s passage of the “Farm Security and Rural Investment Act” provides better, more flexible help for farmers, and, while the emergency bills have averaged \$7 billion per year, this farm bill averages less than \$5 billion per year in additional spending to help farmers. The total cost of the bill’s farming, nutrition, trade, and rural development aspects for the six-year term of the bill (FY 2002 - FY 2007) is projected at \$45.114 billion by the Congressional Budget Office (CBO).

The President’s statement in part read, “I am pleased that the compromise agreement on the farm bill resulted in better balanced commodity loan rates; spending that is no longer front-loaded; and the strongest conservation provisions of any farm bill ever passed by Congress.

The final provisions of the farm bill are also consistent with America’s international trade obligations, which will strengthen our ability to open foreign markets for American farm products. I thank the conferees for their hard work and urge Congress to send the farm bill to my desk promptly for signature to help ensure the immediate and long-term vitality of our farm economy.”

From [AgPress@mail.house.gov](mailto:AgPress@mail.house.gov)

### Next Issue...

**The Agricultural Food and Policy Center (AFPC), which is part of the Department of Agricultural Economics at Texas A&M, will be profiled in the June issue of *Texas Rice*.**

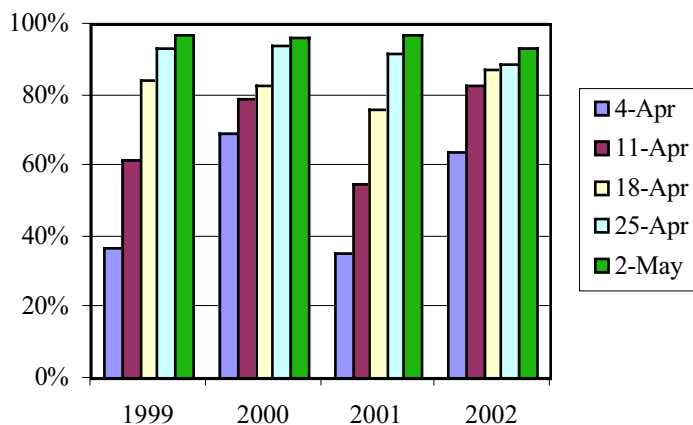
**In conjunction with this story, the AFPC economists will prepare an impact paper outlining how the new farm legislation will effect Texas rice producers.**

**Be on the look-out for this important information.**

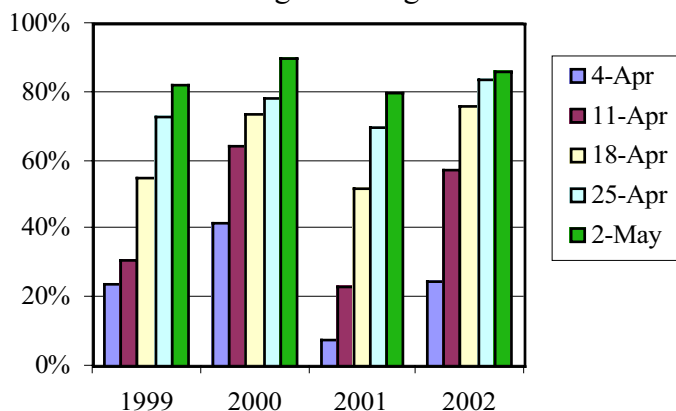
## 2002 Rice Crop Update

Up until April 4th, planted acreage in Texas was well behind previous years. As of May 2nd, planted acreage is very close to the 99-00 crop years. Emerged acreage has followed the same trend, with 86% of the rice crop emerged by May 2nd. Flooded acreage now stands at 18%, well ahead of 2001, but slightly behind 1999 and 2000.

Planted Acreage



Emerged Acreage



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## Rice Around the World continued...

### Suggested reading and sources:

Home Chefs of the World, by Inderjeet Virmani, published by IRRI and Suhay, 1995

This is an excellent source for authentic recipes from rice growing countries throughout the world. To order go to <http://www.irri.org/pubcat2000/pub2000-G.htm#che>

The Rice Bible, by Christian Teubner, published by Penguin Putnam, Inc., New York

Appropriately named, this is the definitive book on rice. Topics include history of origin, cultivation, varietal differences, basic cooking instructions and hundreds of recipes. Nearly 600 beautiful illustrations. Available at bookstores nationwide.

Penzeys Spices. A Wisconsin based company with 11 retail outlets nationwide, they are a great source for high quality herbs and spices - many that are difficult to find in local markets. Their catalogue is packed with useful information and recipes. Log on to [www.penzeys.com](http://www.penzeys.com) or call 800-741-7787.

## Editors Page continued...

As long as agriculture is realized as being important to the welfare of our society, food will remain affordable to our masses. But given the minuscule amount of money our farmers receive for every dollar spent on food at the market level, our system cannot exist indefinitely without a cost of further reductions to our farming sector. I am hopeful that agricultural policies in our country will change so that we can continue to maintain a secure, affordable, and plentiful food supply, but one that also provides our growers an acceptable standard of living.

Sincerely,

*J. T. Wilson*

Ted Wilson

Professor and Center Director