



A professional society representing the nation's crop production and research consultants

## PRESIDENT'S COLUMN



By  
*Nathan Goldschmidt*  
NAICC  
2018 President

# Furrow-Irrigated Rice Gaining Acres in the South

Rice irrigation in the South has historically been achieved using levees or dikes, which are built new each year to hold a shallow flood across fields. Gates are installed in each levee to regulate the depth of the flood and allow irrigation water to cascade from one paddy to another in the field. This method is still utilized on most of the rice acres in the South. A few growers in the Mississippi Delta region began furrow irrigating rice as early as the 1990's. In the last 3-5 years, furrow-irrigated rice has been adopted by many growers throughout the rice growing area of the Mississippi Delta.

### A Common Misconception

Rice can only be grown in standing water, right? Wrong! Rice does need moisture to grow, just like the rest of our crops. The big difference is that rice will grow in a flooded environment whereas corn, soybean, wheat, and cotton will not. The main purpose of flooding rice is for the weed control it provides. If weeds are controlled prior to flood, most grass and broadleaf weeds will not be able to germinate and emerge through the flood water.

### Methodology

If you have ever driven through the Mississippi Delta in the summer, you've

seen a rice field. The number of levees and whether they are straight or curved all depends on the slope of the field. Some will have levees so close together that you can't fit a combine header between them. The time, labor, and equipment required to build and maintain levees each year makes furrow-irrigated rice an attractive option. Prior to planting, beds are constructed using the same equipment used for other furrow-irrigated crops. Rice is planted with a grain drill and pest management is conducted in much the same way as conventionally grown rice. Irrigation frequency is typically every 2-5 days depending on soil type, slope, and irrigation pump output, among other factors. Most growers will build a levee at the lower end of the field or use a road or other land structure to capture and hold the water on the bottom of the field. This results in the bottom third of the field being permanently flooded throughout the growing season.

### Risks and Benefits

The clearest benefit of furrow-irrigated rice is increased efficiency in planting, irrigation, and harvest. Rice can often be no-tilled on beds from the previous year's crop. Fields left bedded will dry out quicker in the spring, allowing for more planting days between precipitation events. Less labor is required to irrigate furrow rice in a timely manner, allowing more land to be used for rice production. Arguably the greatest benefit of this production method is harvest efficiency. Furrow-irrigated rice harvests like a wheat field, compared to having to harvest each paddy individually. Also, the fields can be re-bedded and left until spring, with corn or soybean no-tilled into the old rice beds.

Generally, there is no appreciable water savings compared to permanent flood, although this is not the case in all fields. More support equipment would likely be needed to keep up at harvest. Nitrogen

deficiency and reduced yields on the top third of fields can be an issue due to leaching where the soil is intermittently wet and dry but never flooded. Weed control can be a challenge without the permanent flood to aid suppression of weeds. Unfortunately, some crop insurance companies refuse or are hesitant to insure furrow-irrigated rice.

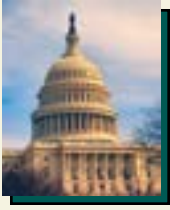
### Future of Furrow-Irrigated Rice

Furrow irrigation is not the answer for all rice fields. There will always be fields where permanent flood will be the preferred irrigation method. Research is currently being conducted across the Mississippi Delta to determine which of our current varieties and hybrids are better suited to this production method. Other research includes fine tuning fertilizer and pesticide recommendations to address challenges faced as this production technique increases in adoption across the South.



*Here's an aerial comparison of a trial that was conducted evaluating the yield potential of several varieties using furrow (right) vs. permanent flood irrigation (left).*

PHOTO: MISSOURI RICE RESEARCH AND MERCHANDISING COUNCIL



## Happenings on the Hill

Glenn Luedke, NAICC Legislative Assistant

### BROADBAND

The Senate Commerce Committee approved the Precision Agriculture Connectivity Act of 2018 (S.2343). The important event, supported by a bipartisan group of Senators, assists in delivering broadband service to the operation of today's modern farm equipment. Included in the bill is language that creates a task force to focus on connectivity issues as well as the advanced technology issues producers rely on today. The Federal Communications Commission reports that 39% of rural America lacks access to broadband service. This compares to only 4% for urban locations.

### LABOR

Growers have been telling their congressional representatives that the H-2A program has greatly assisted them in addressing the accessibility of the labor supply issue. Knowing that a "legal" labor force that can return each year is a valuable benefit. Some challenges have arisen, however, related to wage requirements and schedule limitations. Year-round employers in industries such as dairies and the mushroom industry are prevented from using H-2A workers. The Adverse Effect Wage Rate presents one of the most problematic issues for employers looking for legal and cost-effective employees. Those that participate in this program are being penalized for utilizing legal labor with an artificially high wage rate. Growers using H-2A labor also cited housing requirements as a major drawback.

The Agriculture Guest Worker Act (AG Act): This Act replaces the current H-2A guest worker program with the H-2C program which is to be administered by the USDA. This new program is said to address some of the differences between the two programs, i.e. wages and scheduling.

Unfortunately, a Bi-partisan agreement on solving the problem is considered a "long shot". A program that allows for a constant future flow of workers coming into the country is imperative according to growers and processors who fear more of the U.S. food production industry will move offshore.

### NEXT GENERATION IN AGRICULTURE ACT

A beginning farmer bill has been introduced with a goal of providing resources for assistance with farm transitions and succession planning. The goal of the bi-partisan bill is to ensure

young farmers/ranchers have the tools and hands on experience necessary to become successful through the following methods: facilitating apprenticeships with older farmers/ranchers, assisting with the acquisition of land, and provide critical entrepreneurship and business training. In addition, the bill seeks equitable access to crop insurance and increased coordination of USDA outreach and technical assistance programs that provide resources to young, beginning, and retiring farmers/ranchers. The bill also requests funding to create new positions at USDA to assist in identifying resources and opportunities.

### EPA

Pesticide manufacturers have requested that EPA make available to the public scientific data that were used to make regulatory decisions. EPA states the new proposed rule would require "that the best available science" be transparently made available to the public if the agency relies on it in making policy. The pesticide manufacturers have some opposition to the EPA request and state that this ruling, if passed, would jeopardize some trade secrets. They want an EPA guarantee that certain data remain confidential. Under current federal law, disclosure of pesticide data safety information and disclosure to the public is protected so it will not be improperly used by competitors.

A federal district court ruling in Georgia in mid-June has effectively suspended the WOTUS rule from taking effect in 11 more states that challenged its legality. The rule, passed in 2015, is now stayed in 24 states.

The Administration has completed its review of an EPA proposal to change how it calculates regulations' costs and benefits. Officials at EPA were quoted as saying the controversial rule is needed because it has added up regulation-costs differently at different times, including regulations covering the Clean Power Plan and WOTUS.

EPA officials proposed earlier this year an extension to allow more time for a complete re-write of the WOTUS rule, which unlawfully expanded EPA jurisdiction over waters previously regulated only by states and municipalities. The rule would extend the effective date of the 2015 WOTUS rule. Farm organizations have asked a federal court to dismiss a legal challenge to the EPA's "Applicability Date Rule".

Three states have sued the EPA over its pesticide safety rule delay. The suit was brought about because of EPA delaying a regulation that would require employers to provide enhanced pesticide training to protect farm workers by minimizing exposure to chemicals. The EPA Administration stated at the end of 2017 they're considering parts of the previous administration's rules.

*Continued on page 3.*

## USDA

The House Agriculture Appropriations subcommittee passed the 2019 agriculture spending bill, as amended for the US Department of Agriculture, Food and Drug Administration, Commodity Futures Trading Commission and the Farm Credit Administration. The bill was increased \$14 million over the prior year. The \$23.27 billion discretionary budget for the fiscal year is higher than the amount requested by the administration. In total, the bill allows \$145.09 billion in both discretionary and mandatory funding, a total of \$922 million below the enacted 2018 F/Y level.

Proposed rules for bio-engineered ingredient labeling were announced by the USDA. Public comment is now being sought for the National Bio-engineered Food Disclosure Standard that was mandated by the House of Representatives in 2016. The proposed rule offers definitions on what is considered a bio-engineered ingredient and suggests on how indicators of these ingredients should occur as well as the scope of exemptions that would be available under the law. The comment period is now open for 60 days. (USDA defines bio-engineered food as containing genetic material that has been modified through DNA techniques for which the modification could otherwise not be obtained through conventional breeding or found in nature).

The USDA has removed a proposal under consideration that would establish a national research and promotion program for certified organic products. The decision also terminates a proposal that would set rules for referendum procedures. A lack of consensus within the industry regarding strikingly different views on how to resolve issues in implementing the program was considered a key reason for the decision. The termination of the rulemaking process removes communication restrictions and permits the USDA to interact fully with all interested parties to discuss and consider the future needs of the industry.

The Seeds for the Future Act has been introduced in the U.S. Senate. The legislation is designed to assist growers in meeting future challenges by reinvesting public plant breeding programs with a focus on regional adaptation. (The bill is similar to one already introduced in the House). If passed, the Act would ensure that federal investments are sufficient to support growers and researchers in developing seeds that work for a diversity of farming systems and locations. In addition, the Act would prioritize the “farmer-ready” public cultivar development in federal agricultural research grant programs and increase efficiencies in coordinating USDA competitive grant research programs.

The Administration is planning to put together a government reorganization report. One part of the plan would move the Supplemental Nutrition Assistance Program (SNAP) from the USDA and move it to the Department of Health and Human Services. One other part of the plan would move the U.S. Forest

Service to the Interior Department. In addition, another proposal would move the U.S. Food Safety and Inspection Service from USDA to the Food and Drug Administration.

## FARM BILL

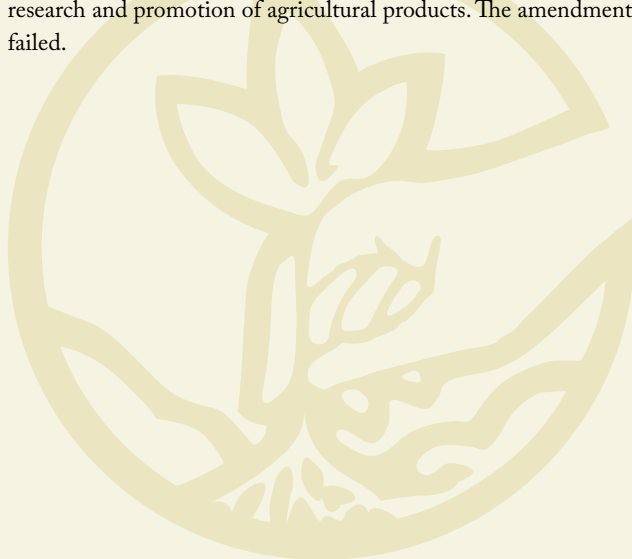
The Farm Bill passed the House on June 21 with a 213-211 vote. The five-year, \$867 billion bill would grant an extension of subsidies for ag producers and government backed crop insurers. The House version of the Bill requires work or training for some individuals currently enrolled in the Supplemental Nutrition Assistance Program (SNAP) and some of the SNAP budget would shift to workforce training. The Senate is considering a different version of the Bill. The Senate version most likely would not impose new work requirements for SNAP recipients. When the Senate approves its own version of the Farm Bill, lawmakers from both chambers will be meeting to compromise on differences and hope to have everything in place before the September 30 deadline.

The Senate passed a bi-partisan Farm Bill with an 86-11 vote on June 28. The legislation has the broad support of over 500 organizations which represent many different agricultural interests.

Senate and House committees will commence meeting after the July 4 recess to reconcile differences between the two bills. There are many areas where the two bills greatly differ, and in particular in the Nutrition Title.

The Senate passed the reauthorization of the Pesticide Registration Improvement Act (PRIA). The House passed H.R. 1029 with strong support from both sides of the aisle in March 2017. With passage, EPA will have the resources to conduct scientific reviews.

During Senate Farm Bill debate, an amendment was introduced that would reduce the “check-off” dollars used for research and promotion of agricultural products. The amendment failed.



# The Foundation Awards Three Scholarships for 2018

NAICC's Foundation for Environmental Agriculture Education (The Foundation) is pleased to showcase three scholarship winners for 2018. The Richard L. Jensen, Ph.D. Memorial Scholarship was awarded to Kenzie Kretzmeier attending Kansas State University. The other two scholarships from the FEAE Fund were given to Ted Hoffmann from the University of Wisconsin – Platteville and Samantha Simpson from North Carolina State University.

**Kenzie Kretzmeier** completed her Associates degree in Ag Business from Butler Community College in El Dorado, KS with a 4.0 grade point average. She is attending Kansas State University this fall where she will pursue a bachelor's degree in Agronomy and Ag Economics.

The summers of 2016 and 2017 were spent by Kenzie as an Agriculture Sales and Professional Development Intern for FMC Corporation. Here she assisted in developing a structured internship program for Indiana, Ohio, Nebraska, and Iowa for college students interested in agriculture chemical sales and marketing. Kenzie has an interest in governmental affairs, and as an intern, traveled all of northern Indiana to spread awareness on EPA regulation of Bifenthrin and encouraged growers and retailers to comment to the EPA. She will return in the summer of 2018 as an FMC intern in the Government Affairs and Industry Relations area.

In her application, Kenzie stated, "My ultimate goal is to work my way up in positions with time and to eventually represent an agriculture company from a policy or industry relations standpoint; my greatest passion lies within being a voice for the industry, and I aspire to do that in my career. Aside from my career, I plan to always stay involved with grass roots organizations and community activities within agriculture, church, and other local groups, as well as raise my own sheep and cattle, and hopefully farm with my family."

**Ted Hoffman** completed his junior year at the University of Wisconsin – Platteville where he is working toward a Bachelor of Science degree in Soil and Crop Science - Comprehensive Emphasis. During the summer months, Ted works with his father and mother, Steve and Michelle Hoffman at InDepth Agronomy in Manitowoc, WI. Here Ted scouts corn, soybeans, alfalfa, wheat, sorghum and performs soil testing services. He also operates the UAV program at InDepth. Ted is knowledgeable about all aspects of independent crop consulting and diagnoses diseases and identifies insects and weed problems. According to a co-worker who also wrote letters to The Foundation in support of Ted's receiving the award, "Three qualities that made my job easier and set Ted apart in

my mind are technical knowledge and application, ability to make an informed decision, and ability to present information to clients in a professional and clear manner."

After graduation, Hoffman plans to become an Agronomist and help clients "find solutions to better manage crops while assuring them that we are taking care of our resources at the same time. It becomes more and more of a challenge to feed the world every day. It is my goal to help area farmers produce high quality crops while maintaining the integrity of our natural resources." Ted has shown his desire to protect the environment by working with Collins Marsh Duck Banding where he helps wildlife biologists and Department of Natural Resources officers capture and band approximately 400 ducks to study migration patterns.

**Samantha Carly Simpson** is a junior at the North Carolina State University, majoring in Plant and Soil Science. Samantha hails from nearby Jamesville, NC where she grew up watching and helping her grandparents tend to their 3-acre vegetable garden. Carly states, "This is the most definitive event that has led me to pursue a career in agriculture".

During high school Carly was very active in the local and national FFA. She served as President of the Riverside chapter and as the NC Northeast Regional Treasurer and Sentinel. She also received her FFA State Degree and the FFA Star Greenhand Award. Simpson was rewarded for her hard work and received the Farm Bureau R Flake Shaw Scholarship and the Frank & Judi Grainger/Fair Products Scholarship.

Carly interned for NAICC member Bruce Niederhauser where she identified weeds, diseases, and insects in cotton, corn, white potatoes, string beans, sorghum, and wheat. She also was responsible for taking soil samples to be sent to the lab to determine deficiencies for fertilizer and liming applications while working with Bruce on recommends for herbicides, insecticides, fungicides, and fertilizers to farmers throughout the growing season. She is currently working with Jim Holland, USDA Corn Breeder Tech. Assistant out of Raleigh, NC, where she analyzes corn seed samples to determine the impact or tolerance of an inoculant, records the exact number of seed and their weight to maximize yield potential, and hands harvests each ear from the field so it can be inspected and know it's hybrid. Simpson is "extremely determined to reach my career goals as a farm consultant or sales representative, either would allow me to have a career that helps farmers improve yields, land application, and make the most financially sound decisions possible."

Congratulations to all three 2018 FEAE Scholarship recipients.

# New Horizons

By Torrance Lee, Chair, Newsletter Committee

I am pleased to announce that a cooperative agreement has been approved by the boards of both NAICC and the Society of Quality Assurance (SQA). Whether you are a researcher, study director, or QA, this agreement was designed to provide both memberships the opportunity to benefit from the strengths that each organization has to offer. For those who may not be familiar, the Society of Quality Assurance is a professional organization that provides networking and training opportunities for the quality assurance professional. The society's website provides helpful information regarding the latest regulatory updates, while also providing the membership an opportunity to explore various documents relating to quality assurance and the GLPs. Upon passing the SQA administered examination, you will become a Registered Quality Assurance Professional (RQAP).

For NAICC and SQA, one of the benefits of the annual meeting is to provide those who are new to the industry or changing career paths, an opportunity to learn about compliance within the industry. Unfortunately, not everyone is able to attend the annual meetings. With that in mind, this agreement provides those unable to attend a chance, to continue to gather knowledge through webinars hosted by SQA. These webinars will be offered at no cost to the NAICC membership. In order for these trading opportunities to be realized, I am asking each of you to volunteer and help facilitate this process. This is not a large time commitment. Since the strength of both organizations is dependent upon the contributions of its members, the success of the online training program will be predicated on everyone's efforts.

Furthermore, we would like to hear from you. Whether in the field or laboratory, what would you like to see in a webinar? From application to final analysis, there is no limit to what we can learn or offer. Anyone is welcome to present, including consultants and study directors. Bring what you know to the table and help others to grow. We want to equip you with the tools necessary for you to be successful in your roles, so that studies are generated with integrity and best reflect realistic outcomes.

In addition to the webinar, the cooperative agreement allows for the exchange of regulatory developments, cross promotion through the website and social media. This agreement will be evaluated on yearly basis to ensure the benefits that are provided to the membership continue to be appropriate and beneficial. It is our hope that this agreement creates opportunities for you to further in your career. If you would like to volunteer or have any questions or concerns, feel free to contact me at [Torrance.Lee@Valent.com](mailto:Torrance.Lee@Valent.com) or (925) 948-2962.

# Agronomic Advisory

By Mark Kottmeyer, Kearney, NE

**Ammonium Sulfate in Glyphosate:** Why does an applicator need to add ammonium sulfate to the mix when applying glyphosate? It has become second nature for growers to do so, but why is it necessary? An article from Michigan State University does a good job in explaining the reasons that glyphosate labels call for the addition of ammonium sulfate in the tank mix.

Hard water in glyphosate spray mix result in hard water antagonism, which ties up the glyphosate and does not allow it to be absorbed as easily into plants. The magnesium and calcium contained in hard water combines with glyphosate to form glyphosate magnesium and glyphosate-calcium compounds which result in poor uptake and poor weed control. Adding ammonium sulfate does two things. First, the sulfate ions tie up calcium and magnesium in the mix water. Second, some of the glyphosate binds with ammonium to form a compound that improves the effectiveness of the glyphosate on some species of weeds, especially velvetleaf.

**Cross Referencing Varieties:** We know that different seed companies can sell the same hybrid or variety. Sometimes growers may purchase seed from three or four different companies thinking that they are diversifying genetic packages, but, they may be planting the same genetics on a large portion of their acreage.

There is a variety code on seed tags or on boxes that can be cross referenced across corn hybrids and soybean varieties. The variety code on the seed tag is the same across all companies that sell that genetic package.



The correct answer from the April newsletter was Hawaiian Punch.

Congratulations to Robert Neese for winning the gift card!

Answer the following question for a chance to win a \$50 Visa Gift Card:

What is the name of this Incredibly cute baby?



Submit your answer here:

<https://goo.gl/forms/ccCFZ3yxtgZiL63J2>

One winner will be randomly selected from the correct answers and announced in the next newsletter.

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