



ACPA Newsletter

2022

Volume 46 Number 1

2022 Arkansas Crop Management Conference

After days of discussion between the groups involved with the planning and execution of the Arkansas Crop Management Conference (ACMC) we decided to move ACMC to a virtual only format. This last minute change was due to rising COVID cases and speakers that needed to quarantine.

The Arkansas Crop Management Conference is presented by: Arkansas Crop Protection Association (ACPA) Arkansas Plant Food Association

(APFA) Arkansas Agricultural Consultants Association (AACA) Arkansas Certified Crop Advisors (Arkansas CCA) University of Arkansas Division of Agriculture (UADA) The 2022 virtual conference offered 38 different presentations. Licensed consultants and Certified Crop Advisors could get up to 37 hours of continuing education.

We had almost 400 register for

the 2022 ACMC, with many taking full advantage of the CEU's offered. The last day to receive CEU's is March 20. We plan to leave the presentations on the website for several months for anyone who registered for the conference. If anyone has questions or concerns with their CEU's from the ACMC, please contact;

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Next years ACMC is scheduled for January 17-19, 2023

Mark Your Calendar

*The Soybean College
Wednesday, August
10 in Tillar, AR
Presented by the
University of Arkansas
System Division
of Agriculture*

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Arkansas Crop Protection Association Annual Meeting

The Arkansas Crop Protection Association (ACPA) held its Annual Meeting on Zoom on Wednesday, March 2, 2022.

The membership voted to change the Constitution and Bylaws to add 2 more board members who are paid, independent, licensed consultants.

The membership also voted to amend the Constitution and Bylaws to say; *The State Plant Board Representative holds office for a two-year term (with the ability to be renominated). Nominations for the State Plant Board Representative will follow current law.* The current law is

that ACPA submits two names to the governor and he chooses one of the nominees to represent the pesticide industry for a two year term. Elections were held and the 2022 Board of directors are;
President Derek Clarkson
President Elect Dr. Nick Bateman
Vice President Dr. Ben Thrash
Secretary Dr. Jeremy Ross
Treasurer Dr. Jason Kelley
State Plant Board Rep Lester Scott
Past President Craig Shelton
Agri-Business Stephen Bariola

Agri-Business Mallory Scott
Industry Jarrod Fannon
Industry Anthony Crocker
Academia Tommy Butts
Academia Terry Spurlock
Consultant Eddie Cates
Consultant Keith Shelton
Ex-Officio
Executive Director Otis Howe
Dept. of Ag Susie Nichols
U of A Extension Pesticide Specialist Ples Spradley
Farm Bureau Jason Smedley

2022 ACPA Honorary Members

Dr. Don Johnson, Dr. Gus Lorenz, and John Snyder have been named Honorary Members of ACPA.

Dr. Don Johnson retired at the end of 2021 as ACPA Executive Director. During his career with



the University of Arkansas as Extension Entomologist, Don served on the board of ACPA.

Dr. Gus Lorenz retired from the University of Arkansas as Extension Entomologist at the end of 2021. Gus served ACPA in many posi-



tions, including president. Gus was long time chairman of the ACPA Resolutions, Recognition, and Necrology Committee.

John Snyder retired in 2021 from a long career with BASF. John served ACPA for



many years including treasurer and president.

ACPA thanks all three of these members for their service to ACPA and Arkansas agriculture.

Research Tackles Ever-Evolving Problem of Weedy Rice

By Fred Miller
U of A System Division of Agriculture
@AgNews479

FAYETTEVILLE, Ark. — Red rice in the field was a problem for rice growers, but at least it was easy to spot. But years of out-crossing with cultivated rice varieties has resulted in “weedy rice,” which appears in a spectrum of hues, some of which can blend in nicely with the crop.

But that camouflage is deceiving, and the result can be loss of both yield and rice quality, said Nilda Burgos, professor of weed physiology and molecular biology for the Arkansas Agricultural Experiment Station, the research arm of the University of Arkansas System Division of Agriculture.

Burgos has been working on the problem of red rice for many years. But now, she said, she has to think of it in terms of varying shades of weedy rice. “It’s not just red rice, anymore.”

Fraternization

The issue is that red rice is the same genus and species as cultivated rice, Burgos said. That leads to “gene flow,” when cultivated rice cross-pollinates with the weeds that survive from one year to the next. A problem may not manifest after a single rice season, but after repeated years of “fraternization” between weedy and domestic rice, the weeds present problems.

Burgos said she didn’t expect to find a big problem with red rice at first because rice is self-pollinating. That slows the rate of cross-pollination, especially since the reproductive window of individual varieties is relatively narrow.

“But we found that things begin to happen after multiple seasons,” Burgos said, “especially in fields where hybrids have been growing for many years.”

Rice grains that fall out and are left in the field will grow up volunteers in following years. Out-crossing with weedy rice results

in numerous offspring that manifest many hues of off-color rice, and varying maturity dates. This leads to a wider window for cross-pollination, which leads to more varieties of weedy rice.

“The volunteers are bridges for outcrossing with weedy rice,” Burgos said.

Because weedy rice often matures later than conventional varieties, its development is often stunted before grain maturity when cooler weather comes on in the fall. “Second or third generations of weedy rice outcrosses only exist when it stays warm,” Burgos said.

That makes weedy rice a bigger problem in countries with tropical climates, Burgos said. But it’s also a problem as warm weather stretches longer into fall in the U.S.

“When it comes to global warming, weeds are going to love it,” Burgos said. “Outcrossing and herbicide resistance will become worse.”

The rise of weedy rice is not anyone’s fault, she said. “It’s a combination of factors, including plants, weather, climate, economics, available agricultural technology, available knowledge and farming practices.”

Problems in the fields

Hybrids have passed along herbicide resistance to weedy rice, Burgos said.

“Hybrid rice is more compatible with red rice and the outcrossing rate is higher,” Burgos said. “The outcrossing rate in hybrids is double that of conventional rice varieties.”

That’s still low, because of rice being self-pollinating, Burgos said. But it means that it takes fewer seasonal cycles before problems begin to mount up.

Besides causing headaches for weed control, the varying hues of weedy rice mar the consistent white color desired at the rice mills, Burgos said. That causes devaluation of the crop, and a discounted price paid to the farmers.



WEEDY RICE — Nilda Burgos, professor of weed physiology and molecular biology, has conducted extensive research on weedy rice. (UA System Division of Agriculture photo by Fred Miller)

Being the same species as cultivated rice means that weedy rice is also competing with the crop for resources throughout the growing season, robbing the crop of nutrients and water, Burgos said.

The variability in maturity date also means the weedy rice may be overly mature or under-mature at harvest. Grains from overly mature weedy rice shatter in the field, leaving seed that will grow up as weeds in the following season, or during milling, damaging a crop’s milling yield.

Under-mature weedy rice at harvest means moisture content will be too high, complicating rice drying.

Plant height of weedy rice is consistent in the first generation, Burgos said. But it begins to vary in succeeding generations.

With all this going on, Burgos said, weedy rice wreaks havoc in the rice field. Burgos quantified yield loss for varying varieties and growing conditions. The weeds also result in lower rice quality and, in worst cases, can severely damage the whole crop.

Countermeasures

Avoiding damage from weedy rice begins with zero tolerance weed management, Burgos said. “Don’t leave anything in your field. And don’t forget the edges of the fields.”

Many growers clean up their fields thoroughly, but neglect the edges and ditches, Burgos said. The following year, weedy rice sprouts up

at the peripheries of rice fields and spreads in from the edges.

Also, weedy rice seed that drops in water in the ditches gets carried to other areas and can sprout up anywhere.

Rotating hybrid rice with conventional varieties can also slow gene flow and inhibit development of herbicide resistant weeds, Burgos said. Rotating rice with other crops, like soybeans, and the different weed control strategies used with those plants can help keep rice fields clean. She also advises rotating weed control strategies.

“Make sure, whatever you use, you leave no weedy rice in the field,” Burgos said.

“Farmers are seeing more resistant weedy rice,” Burgos said. “Any field that has had Clearfield in it for many years will be more likely to see it.”

Burgos is preparing an article based on a survey of weedy rice in Arkansas, which will be published by the Division of Agriculture.

To learn more about Division of Agriculture research, visit the Arkansas Agricultural Experiment Station website: <https://aaes.uada.edu/>.

Enlist One and Enlist Duo Re-Registration: What Do We Need to Know?

by Tommy Butts, Extension Weed Scientist, Tom Barber, Extension Weed Scientist, and Jeremy Ross, Extension Soybean Agronomist - January 18, 2022

Enlist herbicides [Enlist One (2,4-D choline) and Enlist Duo (2,4-D choline + glyphosate)] were recently granted amended seven-year registrations for over-the-top applications on Enlist corn, cotton, and soybean. This is great news for individuals who are using the Enlist cropping system. However, there were numerous counties (including several in western Arkansas) in which the use of Enlist herbicides has been prohibited by the EPA due to their updated Endangered Species Act risk assessment. Additionally, there were some new labeling guidelines everyone should be aware of that were implemented to reduce the impacts of off-target and runoff movement.

Both Enlist One and Enlist Duo are officially prohibited from being used in the following 11 Arkansas counties at this time (Fig. 1):

- Crawford**
- Franklin**
- Johnson**
- Little River**
- Logan**
- Montgomery**
- Polk**
- Scott**
- Sebastian**
- Sevier**
- Yell**

Counties in Arkansas that are NOT listed above, do not fall under these restrictions and Enlist herbicides are permitted

for use in accordance with the label.

This is extremely unfortunate news for growers in these counties. With glufosinate (Liberty) prices skyrocketing and its limited availability for 2022, the ban on Enlist herbicides leaves minimal if any, effective POST herbicide options for PPO-inhibitor-resistant Palmer amaranth control. If you farm in the affected counties listed above and had Enlist crops in your plans for 2022, we recommend the following:

Start clean; make sure to effectively eliminate weeds that emerged prior to planting.

Use a strong residual program with multiple, effective modes of action. Soybean pre-mix products such as Trivence, Boundary, and Fierce, among others, and cotton tank-mixtures of Cotoran, Caparol, or Diuron + Brak-eare great candidates and will

also control a diverse weed spectrum.

Overlap residuals (Dual Magnum, Zidua, Outlook, etc.) between 2 and 3 weeks after the PRE application. Reduce or eliminate the need for POST products as much as possible.

If you have access to and the budget allows, use an application of glufosinate (Liberty) to clean up your field. If PPO-inhibitors are still effective on your Palmer amaranth, Flexstar would be a great option POST in soybean for multiple weed species that also includes some residual activity.

If pigweed is PPO-inhibitor-resistant and glufosinate is not viable this year, consider switching to an XtendFlex variety. Dicamba rules have remained unchanged from last year, so the cutoff remains June 30, but be aware of surrounding crops and other vegetation, and make sure to follow all label requirements.

Other changes to the Enlist labeling affecting all applicators are aimed at reducing the potential risk of non-target species, mitigating runoff, and protecting pollinators. These federal changes and additional information regarding the seven-year EPA registrations can be found in this article, New Enlist Registrations: EPA Gives Enlist Herbicides New Seven-Year Registrations, or visit the Enlist Weed Control System website at <https://www.enlist.com>

Additionally, the EPA noted in their news release that the new Enlist registrations are among the first herbicides to have undergone a full EPA analysis of their effect on endangered species and critical habitats. As a result, we all must be aware moving forward that these area/county-wide bans may become more commonplace with future herbicide registrations and re-registrations.

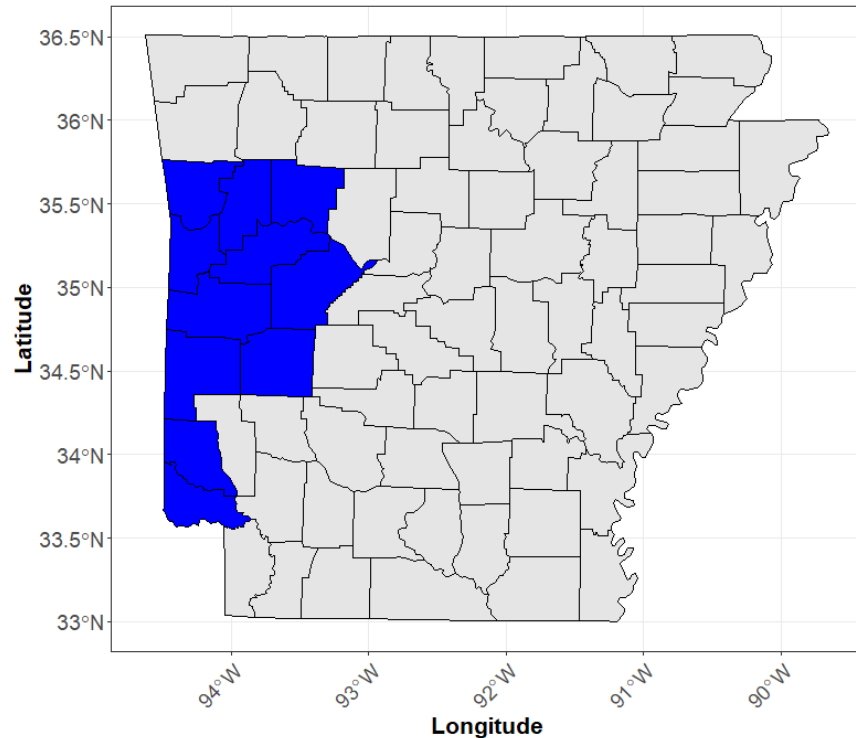


Fig. 1. Counties (shaded in blue) in which Enlist herbicides are prohibited in 2022.

More Than 350 Organizations Voice Support for Existing Pesticide Law

January 11, 2022

WASHINGTON, D.C. - CropLife America (CLA) joined more than 350 organizations engaged with pesticide products in a letter sent to members of the U.S. Senate and House of Representatives that affirms these organizations' support the pesticide regulatory system in place today under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The letter is in response to recently introduced legislation (S. 3283) that would undermine the science-based standards contained within our nation's pesticide law. This is the second time these organi-

zations have reached out to Congress to voice concern over similar proposed legislation.

"This legislation, as introduced, undermines the work of EPA's career scientists in the evaluation of pesticide registration and use," said Chris Novak, CLA president and CEO. "The evaluation of each pesticide requires the agency's career scientists to review hundreds of studies to determine whether and/or how a pesticide can be safely used. Within the current regulatory system, only about one in 10,000 discoveries makes the long journey from the lab to the farmer's field—a process that can take more than 12 years," Novak continued. "This risk-based approach is necessary

to ensure that farmers have new tools to combat the weeds and insects that threaten the safety, productivity, and sustainability of our nation's food supply."

FIFRA has been amended by Congress several times to strengthen the regulatory standard for safety – most recently through the Food Quality Protection Act (FQPA) that added specific protections for infants and children. Under the provisions of the current law, pesticides that are approved for use are subject to continuous review whenever new scientific data becomes available. Officially, federal regulators must review each pesticide approved for use in the U.S. every 15 years, but the reality is that the pace of scientific

development means regulators are making formal assessments much more frequently as more data becomes available.

The proposed legislation would jeopardize the continued availability and innovation of pesticide products by imposing an unscientific and unbalanced process that could unnecessarily remove pest control options from those who need them to safely grow crops, to adopt conservation practices such as conservation tillage and resource-saving crop rotations, to protect homes and infrastructure, to control pathogens and disease vectors, and to maintain green spaces, such as parks and golf courses.

Arkansas State Plant Board Report

The Arkansas State Plant Board held its 446th quarterly Board meeting on March 3, 2022.

Pesticide Committee Chairman Lester Scott summarized the minutes of the January 26, 2022 Pesticide Committee meeting.

The Committee was provided an update from Corteva Agriscience indicating they had received EPA extension for 7 years on Enlist One and Enlist Duo product labels for 2022.

The Committee reviewed 69 enforcement actions presented by Susie Nichols, Pesticide Section Manager. Of the 69 enforcement actions, 35 were at Level 1, minor with warning letters, 24 at Level 1-4, with agreed civil penalties, and 10 were assessed a penalty yet to be finalized. Nichols provided the Committee with an update on the State FIFRA research and evaluation group meeting from December. The Committee was also presented EPA's Status of Over-the-Top Dicamba Summary of 2021. The Committee reviewed Arkansas dicamba case status from 2021 vs. previous years. Scott stated current dicamba use dates did cause an

increase of cases associated with dicamba in 2021 but based on the pesticide supply situation and EPA's current position of no changes in 2022, the Committee recommended maintaining the current dicamba rule for 2022. The Committee's recommendation was accepted by the Board.

Plant Board Chairman Matthew Marsh stated the Committee discussed the dicamba situation in Arkansas and reiterated the Board's changes in 2021 did increase damage in the state to a level that approximately doubled alleged dicamba complaints. Marsh stated he thinks that, due to the supply situation and timing, maintaining the current dicamba rule for 2022 is appropriate. Marsh stated if there is a need or want to make a change, it is appropriate to start the process in the Fall.

Pesticide Committee Chairman Scott also summarized the minutes for the February 18, 2022 Pesticide Committee meeting. The Committee reviewed an Aerial Deposition Droplet Study for Sharda LLC on quinclorac products to bring to the market in 2022. All studies passed the minimum requirements and the

Committee voted to accept and approve the droplet study. The Committee's recommendation was accepted by the Board.

Chairman Sam Stucky summarized the minutes of the February 22, 2022, Boll Weevil Committee meeting.

The 2022 season per acre assessment will remain at \$3.00.

A rebate of 75 cents per acre was approved to be implemented for the 2021 growing season. This is down 25 cents from the previous rebate due to rising costs and inflation.

The verification date for cotton acreage was moved to June 30 instead of June 15 to help with late planting.

The Board approved the Committees report.

Industrial Help Committee chairman Dr. Ken Korth summarized the minutes of the January 28, 2022 Industrial Hemp Committee meeting.

The Arkansas Hemp Production Act of 2021 transitions the program

from a research program to a more commercialized program which aligns Arkansas with USDA rules and the 2018 Farm Bill.

The Hemp Program has submitted a transitional work plan that has received federal approval from USDA, however the Program's rules need to be updated to support the transition from research to commercial production.

The committee was presented with a draft of the proposed rule changes that will align the Hemp Program with the state's new hemp law, as well as federal hemp laws and rules.

The Committee voted to recommend the Board repeal the current hemp rules and initiate the rulemaking process for the proposed rules.

The Board approved the Committees report.

Scott Bray, Plant Industries Division Director reported that the Plant Industries Division would be helping the Arkansas Department of Workforce Services with H2A housing inspections. Bray also reported that Cogongrass, an invasive species was found near Helena and the Division will help monitor it this year.