ARKANSAS CONSERVATION NEWS

Natural Resources Conservation Service

2nd Quarter 2022

Room 3416, Federal Building, 700 W. Capitol Ave., Little Rock, AR 72201
Phone: (501) 301-3100 • Website: www.ar.nrcs.usda.gov

2nd Quarter 2022

NRCS Projects, Contracts Assist Ralston's with Irrigation, Expanding Farming Operation

Pages 17-18

Reginald Cunningham (right), Pope County district conservationist, discusses the Ralston's farming operation with Robin and Tim at their headquarters in Atkins Bottoms in central Arkansas. Thanks to hard work, family and several USDA Natural Resources Conservation Service projects and contracts, the Ralston's recently became the first farmers in Arkansas to ship rice to China.

South Area staff receives National NRCS/Group Civil Rights Award
Pages 4-5

Irrigation Water Management Works Well for South Arkansas Family Farm
Pages 13-14

First Generation Farmer Grows 50 Varieties of Vegetables
Pages 15-16

Helping People Help the Land

From the State Conservationist

March was Women's History Month. I am so proud to work alongside so many great women leaders at the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS). At NRCS, we are very proud of the women who make up our workforce. We recognize how they always demonstrate the strength, capacity and tenacity needed to achieve the goals they set for their careers. We also celebrate the assistance they provide to our customers in helping them get conservation on the ground.

We also honor and pay tribute to the accomplished, visionary, and trailblazing women farmers, ranchers, and foresters who provide the food and fiber to help feed the world. They serve as an inspiration of expanded opportunity and endless possibilities for all women and girls.

USDA Service Center Masking Update

I want to thank our USDA NRCS Arkansas Team for their continued efforts to deliver services to our customers throughout the COVID-19 restrictions, as well as other challenges they have faced since the pandemic began over two years ago. I greatly appreciate all the hard work they've accomplished. NRCS is in a better place now as we prepare to begin a phased approach to returning back to the physical workplace.

The next phase started the week of March 28 with many supervisors and employees re-entering workspaces. Additional mission area and office employees will return to our offices in the coming months.

The new Centers for Disease Control and Prevention (CDC) Community Conditions guide mask wearing is as follows:

- Visitor Attestation: Is only required in High Counties (where masks are required). If the CDC says a community is in the High category, then masks must be worn.
- Low and Medium Counties: No masks are required, but USDA employees, customers and USDA Service Center visitors are welcome to continue wearing a mask if they choose.
    - o USDA Service Centers may eliminate the requirement for customers to have an appoint to visit and unlock main doors.

COVID-19 Community Levels can help communities and individuals make decisions based on their local context and their unique needs. Check your county's COVID-19 Community Level https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html.

For additional information and to locate your local USDA Service Center https://offices.sc.egov.usda.gov/locator/app.

Deadlines Extended for Climate-Smart Funding Opportunity

USDA extended the deadlines to apply for the Partnerships for Climate-Smart Commodities funding opportunity after requests from many stakeholders. USDA began accepting project applications for fiscal year 2022 on February 7 and since then, the Department has heard from many stakeholders that an extension would allow them to prepare more robust applications to further development of climate-smart markets for a diverse range of producers. New deadlines to apply via Grants.gov by 11:59 p.m. ET:

(see STC on Page 3)

ARKANSAS CONSERVATION NEWS
NATURAL RESOURCES CONSERVATION SERVICE

USDA United States Department of Agriculture

The Arkansas Conservation News is published quarterly by the Arkansas Natural Resources Conservation Service.

Please send submissions to Reginald L. Jackson, State Public Affairs Specialist, or Creston Shrum, Public Affairs Specialist at: Room 3416, Federal Bldg.; 700 W. Capitol Ave.; Little Rock, AR 72201
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All submissions are the property of NRCS and may be edited for content or limitations.

For more information on Arkansas NRCS visit:
Website: www.ar.nrcs.usda.gov
Twitter: twitter.com/arkansasnrcs
YouTube: https://bit.ly/2Hau3QO

STC *(continued from Page 2)*

- First Funding Pool – May 6, 2022, Proposals from $5 million to $100 million
- Second Funding Pool – June 10, 2022, Proposals from $250,000 to $4,999,999

Visit usda.gov for additional information, including details on Partnerships for Climate-Smart Commodities and resources to support your application. *(See article on Page 11)*

CEAP Report Shows a Decade of Conservation Trends

A new USDA report shows use of no-till, crop rotations, more efficient irrigation methods and advanced technologies have climbed in recent years. The NRCS report demonstrates progress made through voluntary conservation over a 10-year period. Findings from the report will inform future conservation strategies, including USDA's efforts to tackle the climate crisis.

The "Conservation Practices on Cultivated Cropland: A Comparison of CEAP I and CEAP II Survey Data and Modeling" was developed by USDA's Conservation Effects Assessment Project (CEAP). It found significant gains for soil health and soil carbon storage, while also identifying areas where additional and targeted nutrient management strategies are needed.

For more info, visit https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/ or view this multimedia story https://ceap-nrcs.opendata.arcgis.com/. *(See article on Page 6)*

Mike Sullivan, State Conservationist

by Doris Washington, Arkansas State Executive Director for USDA Farm Service Agency and Mike Sullivan, Arkansas State Conservationist for USDA Natural Resources Conservation Service

March 22 was National Ag Day, a time for us to thank farmers, ranchers and foresters for feeding, sheltering and powering our nation. We also want to celebrate and recognize the pivotal role of Arkansas producers in mitigating climate change through voluntary conservation efforts.

Climate change is happening, evidenced by persistent drought, frequent tornadoes and storms, and larger more powerful wildfires. Our agricultural communities are on the front lines. Now is the time for us to act, and Arkansas producers are doing their part.

The USDA is focused on providing producers tools to help mitigate climate change. As part of this, the Biden-Harris Administration has taken proactive steps to improve programs.

USDA bolstered the Conservation Reserve Program, providing an incentive for climate-smart practices and investing in partnerships to better quantify the benefits of this program.

With our Environmental Quality Incentives Program, USDA launched a new cover crop initiative as well as a new conservation incentive contract option, all with a goal to make available additional funds to help producers conserve natural resources.

And finally, USDA is enhancing Federal crop insurance to support conservation. In 2021 and 2022, the Department provided producers with a premium benefit for acres planted to cover crops.

You might be wondering, why so much emphasis on cover crops? Cover crops help soil sequester more carbon, a key tool for mitigating climate change; they prevent runoff, leading to cleaner water; and they boost production through improved soil health. But cover crops are just one tool, and producers in Arkansas are also using Irrigation Water Management, Prescribed Grazing, Nutrient Management, and Residue and Tillage Management.

Our staff work one-on-one with producers to conserve natural resources, grow and improve their operations, and manage risk. This year's National Ag Day theme is "Growing a Climate for Tomorrow."

We know from firsthand experience – farmers are doing this. On National Ag Day, and every day, we encourage you to thank a farmer, rancher and forester for food, fiber, and fuel – and our future.

Doris Washington can be reached at doris.washington@usda.gov.

Mike Sullivan can be reached at michael.sullivan2@usda.gov.

Producers interested in USDA programs are encouraged to contact their local USDA Service Center.

Civil Rights Award

South Area staff receives National NRCS/Group Civil Rights Award

Several members of Arkansas NRCS's South Area staff were selected to receive the National NRCS Team/Group Civil Rights Award from USDA Natural Resources Conservation Service Chief Terry J. Cosby.

The National NRCS Team/Group Civil Rights Award recognizes a team or group who has made a significant contribution to NRCS in Civil Rights program delivery. Arkansas NRCS's South Area staff provided exemplary service by equally committing to the preservation of the legacy of civil rights and conservation in Arkansas.

In 2021, members of the South Area worked with historically underserved forest landowners to identify their concerns and objectives. Within the Keeping it in the Family (KIITF) Sustainable Forestry Land Retention Forestry Project covering 18 counties located within the South Area, regular meetings and outreach efforts took place to address the needs and desires of local historically underserved forest landowners. Working through the COVID-19 environment, South Area employees reached many of these customers through targeted outreach efforts and Zoom calls with community-based organizations.

The South Area team and members from the University of Arkansas at Pine Bluff (UAPB) hosted a successful Estate Planning & Heirs Property Workshop with a total of 104 participants, and a Genealogy Workshop with 49 participants. The partnership between South Area staff, UAPB and KIITF representative assistance is provided to forest landowners within 18 counties. To meet the needs of historically underserved forestry producers, the project boundary has increased from an original target area of seven counties in 2017 to 18 counties today. Arkansas NRCS's South Area obligated more than $283,000 to historically underserved forestry producers through the KIITF initiative in FY2021.

Sequoyah Browning surveys his trees on his Ouachita County heir property. (photo by Reginald Jackson)

"I want to congratulate the South Area staff who made great strides breaking through known barriers such as the COVID -19 pandemic, absentee landowners and their property while putting conservation on the ground," said Mike Sullivan, NRCS State Conservationist. "I also want to thank Chief Cosby and the National Civil Rights Committee to the Chief for recognizing our staff with this great honor."

The award was presented March 30 via Teams meeting.

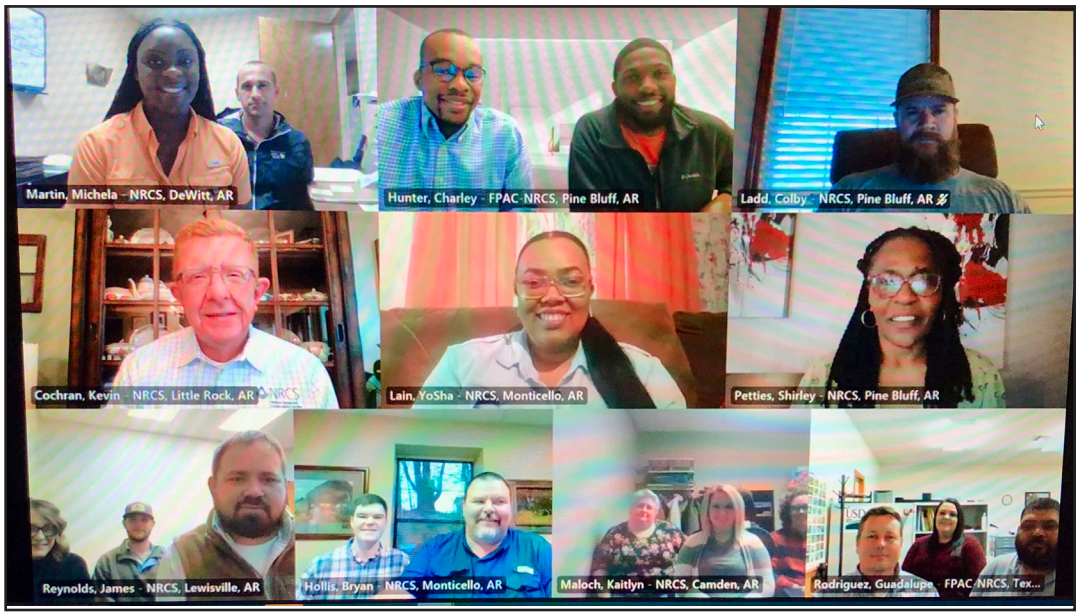
List of offices and names of award winners

- Monticello Field Service Center (FSC): Miche'la Martin, Yo'Sha Lain, Clayton Howell
- Pine Bluff FSC: Charley Hunter, Candra Thomas, Shirley Petties, Jamison Murrey, Colby Ladd
- Little Rock South Area Office: Kevin Cochran
- Lewisville FSC: James Reynolds, Garrett Akins, Suzanne Ivey
- Warren FSC: Jacob Hollis
- Monticello Technical Service Center (TSC): Bryan Hollis
- Camden FSC: Kaitlyn Maloch, Nakana'ela Morton, Lisa Michaels
- Ashdown FSC: Ashley Patterson
- Texarkana FSC: Roger Gold, Guadalupe Rodriguez
- Arkansas State Office: Alvin Peer, Corey Cornelious
- Nashville FSC: Che Gordon, Jaylan Haskin, Mark Kilcrease
- Arkadelphia FSC: JoAnn Hardy, Dylan Busbee
- DeQueen FSC: Derek Kelso, Trevor Montgomery
- Hope FSC: Lucas Birriel, Hannah Alford, Rena England, Joe Gulley
- Camden TSC: Josh Smith
- Fordyce FSC: Cecilia Roark, Joshua Stewart

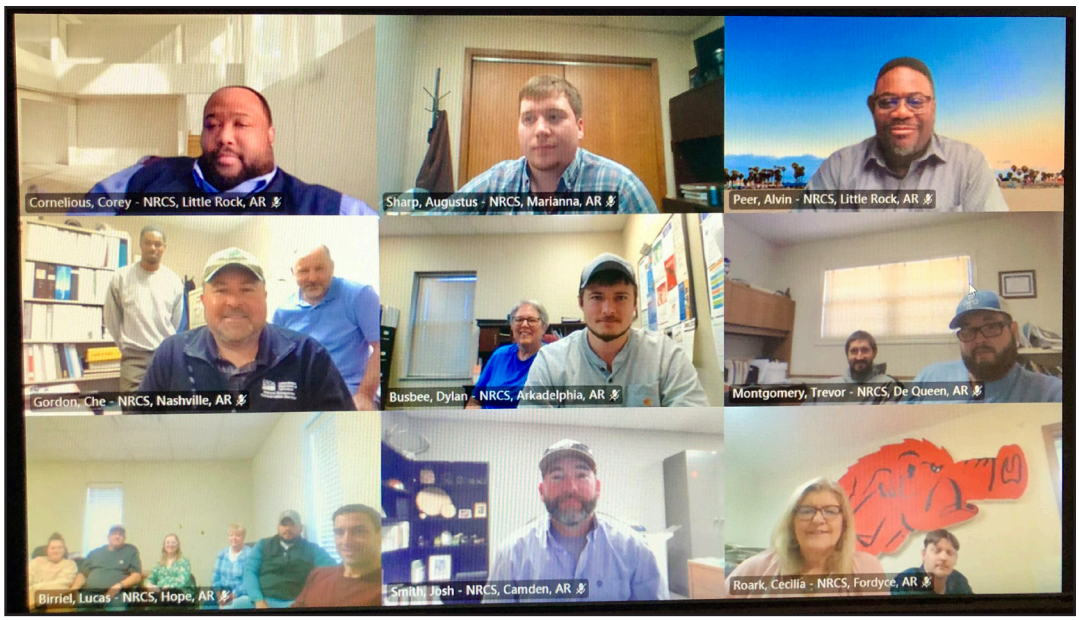
(See photos on Page 5)

Civil Rights Award

South Area staff receives National NRCS/Group Civil Rights Award



(left to right): Monticello FSC - Miche'la Martin (acting district conservationist DC), Clayton Howell (soil conservation tech SCT), Pine Bluff FSC - Charley Hunter (DC), Jamison Murry(soil conservationist SC), Colby Ladd (SCT), Little Rock South Area Office - Kevin Cochran, Assistant State Conservationist for Field Operation (South Area), Monticello FSC - Yo'Sha Lain (SC), Pine Bluff FSC - Shirley Petties (SC), Lewisville FSC - Suzanne Ivey (SCT), Garrett Akins (SC), James Reynolds (DC), Warren FSC - Jacob Hollis (DC), Monticello TSC - Bryan Hollis (Resource Conservationist RC), Camden FSC - Lisa Michaels(SCT), Kaitlyn Maloch (DC), Nakana'ela Morton (SC), Texarkana FSC - Roger Gold (DC), Ashdown FSC - Ashley Patterson, Texarkana FSC - (SCT) Guadalupe Rodriguez (SCT)



(left to right): Arkansas State Office Programs - Corey Cornelious (RC), Nashville FSC - Gus Sharp (SC), Arkansas State Office Programs -Alvin Peer (outreach coordinator), Nashville FSC - Jaylan Haskin (SC), Che Gordon (DC), Mark Kilcrease (SCT), Arkadelphia FSC - JoAnn Hardy (DC), Dylan Busbee (SC), De Queen FSC - Trevor Montgomery (SCT), Derek Kelso (DC), Hope FSC - Hannah Alford (SC), David Williams, (water quality tech) Jacqueline Ballard (CTR), Rena England (SCT), Joe Gulley (conservation engineering tech), Lucas Birriel (DC), Camden TSC - Josh Smith (forester), Fordyce FSC - Cecilia Roark (DC), Joshua Stewart (SCT)

USDA Sets April 15 Application Cutoff for CSP Renewals

The Natural Resource Conservation Service is accepting Conservation Stewardship Program (CSP) renewal applications through April 15.

During the first half of the fifth year of the existing contract term, NRCS may allow a participant to apply and compete to renew their contract for an additional 5-year period.

NRCS is mailing contract renewal notification letters to all participants whose contracts expire in 2022. These letters contain instructions on how to apply for CSP renewal.

Participants with 2018 CSP contracts (Classic, Renewal, and RCPP-CSP) expiring December 31, 2022, can apply to renew their contracts for an additional five years if they agree to adopt additional activities to achieve higher levels of conservation on their lands.

NRCS will assess and rank all renewal applications received on or before the renewal application cutoff date.

Renewal applicants will compete within a separate state-established ranking pool, and NRCS will make funding selections based on ranking score and available funds.

Through CSP, NRCS helps private landowners build their business while implementing conservation practices that

help ensure the sustainability of their entire operation.

"Producers who have questions about the CSP renewal instructions, should visit their local NRCS office," said Arkansas State Conservationist Mike Sullivan. "CSP is a great chance to continue building your operation's conservation portfolio and help us protect more of our state's natural resources."

For more information about conservation planning and programs to help treat natural resource issues on your land, visit www.ar.nrcs.usda.gov or your local USDA Service Center.

Report Shows Decade of Conservation Trends

A new U.S. Department of Agriculture report shows use of no-till, crop rotations, more efficient irrigation methods and advanced technologies have climbed in recent years.

The report from USDA's Natural Resources Conservation Service (NRCS) demonstrates progress made through voluntary conservation over a 10-year period. Findings from the report will inform future conservation strategies, including USDA's efforts to tackle the climate crisis.

The "Conservation Practices on Cultivated Cropland: A Comparison of CEAP I and CEAP II Survey Data and Modeling" was developed by USDA's Conservation Effects Assessment Project (CEAP). It found significant gains for soil health and soil carbon storage, while also identifying areas where additional and targeted nutrient management strategies are needed.

"This latest CEAP report shows farmers have done an outstanding job in using innovative conservation strategies that help mitigate climate change," said Mike Sullivan, NRCS state conservationist in Arkansas. "But we have more work to do. Reports like this one help us better understand conservation approaches and make improvements to increase positive impacts. This report will help steer our conservation efforts well into the future to help us adapt to changing trends in production, climate and technology."

Key findings include:

- Farmers increasingly adopted advanced technology, including enhanced-efficiency fertilizers and variable rate fertilization to improve efficiency, assist agricultural economies and benefit the environment.
- More efficient conservation tillage systems, particularly no-till, became the dominant form of tillage, improving soil health and reducing fuel use.
- Use of structural practices increased, largely in combination with conservation tillage as farmers increasingly integrated conservation treatments to gain efficiencies. Structural practices include terraces, filter and buffer strips, grassed waterways and field borders.
- Irrigation expanded in more humid areas, and as irrigators shifted to more efficient systems and improved water management strategies, per-acre water application rates decreased by 19% and withdrawals by 7 million-acre-feet.
- Nearly 70% of cultivated cropland had conservation crop rotations, and 28% had high-biomass conservation crop rotations.

(see Conservation Trends on Page 10)

NRCS Accepting Applications for Conservation Planning Assistance in East Arkansas Delta RCPP Project

Farmers and landowners in the East Arkansas Delta Regional Conservation Partnership Program (RCPP) project in Arkansas can apply to receive conservation planning assistance in fiscal year 2022.

Technical assistance is available for agriculture producers who want to work with NRCS and the East Arkansas Enterprise Community (EAEC) to develop a voluntary conservation plan. These are free plans that identify potential natural resource problems, evaluate alternatives, and recommend solutions that could make use of the land more effective and sustainable.

A producer prepares his field for planting.

This planning effort is being conducted in advance of two years of financial assistance to be made available in the project area in 2023 and 2024. The anticipated financial assistance may help eligible participants offset a portion of the cost of implementing components of the conservation plans. Producers who request plans through this sign up and are treating project resource concerns may receive priority consideration for funding in future years.

Farmers and landowners in Lee, St. Francis, Monroe and Phillips counties who submit applications to their local NRCS office by April 29, 2022 will receive priority planning assistance.

"RCPP is a unique program that leverages non-federal investments brought by conservation partners to accelerate conservation in selected project areas," said Arkansas NRCS State Conservationist Mike Sullivan. "This approach helps us maximize use of our collective resources to address locally identified concerns."

The East Arkansas Delta RCPP project will implement innovative, effective and compelling solutions for the primary resource concerns related to land improvement/management/restoration of row crop and alternative crop producers and landowners in Lee, St. Francis, Monroe and Phillips counties.

The objectives are to provide technical and financial assistance to all eligible producers and landowners, including socially disadvantaged producers and landowners in four select StrikeForce counties to improve their resource management and cropping systems and to help producers and landowners to identify the conservation activities they need to solve their conservation problems and install appropriate innovative conservation practices to decrease water quality degradation; improve habitat for fish, wildlife, and invertebrates; and reduce excess/insufficient water/drought.

All USDA Service Centers are open for business, including those that restrict in-person visits or require appointments.

Online services are available to customers with an eAuth account, which provides access to the farmers.gov portal where producers can view USDA farm loan information and payments and view and track certain USDA program applications and payments. Customers who do not already have an eAuth account can enroll at farmers.gov/sign-in. Online NRCS services are available to customers through the Conservation Client Gateway link which can be found at www.nrcs.usda.gov. Customers can track payments, report completed practices, request conservation assistance and electronically sign documents.

RCPP promotes coordination of NRCS conservation activities with partners that offer value-added contributions to expand our collective ability to address on-farm, watershed, and regional natural resource concerns.

Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges and provide measurable improvements and outcomes tied to the resource concerns they seek to address.

For more information, visit http://www.ar.nrcs.usda.gov/ or contact by phone your local USDA/NRCS Field Service Center.

Groundwater – Making the invisible visible

March 22 was World Water Day (WWD). Annual WWD observances promote public awareness and learning about water-related issues and aim to inspire actions for water security. Agriculture producers need water every day to make their operations productive and sustainable.

This year's theme and campaign, 'Groundwater – Making the invisible visible', explains groundwater's vital role in water and sanitation systems, agriculture, industry, ecosystems, and climate change adaptation.

The overarching message of the campaign is that exploring, protecting, and sustainably using groundwater will be central to surviving and adapting to climate change and meeting the needs of a growing population.

Nationally, Arkansas ranks third in the nation for the number of irrigated acres. The primary source of irrigation water is and has historically been the shallow Mississippi River Valley Alluvial Aquifer. This aquifer is being overdrawn 80 percent beyond its safe yield. In addition, the Sparta Aquifer which supplies drinking water for many residents in the Mississippi River Valley is now being used for irrigation.

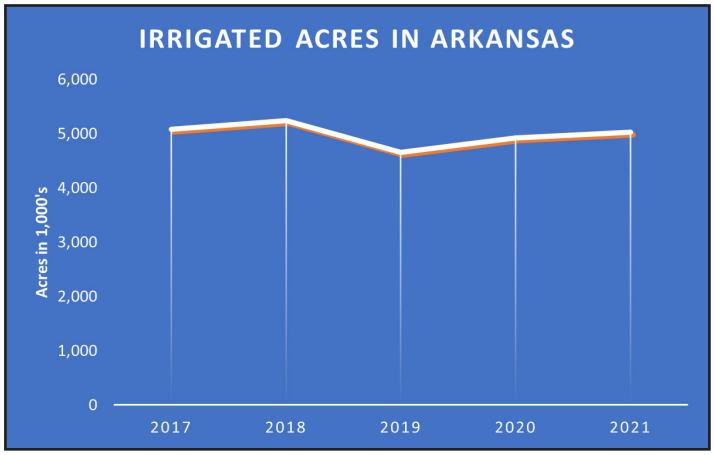
"While Arkansas has an abundance of good quality groundwater in many parts of the state, groundwater is being depleted faster than the rate of recharge in the primary agricultural area for cultivated crops," said Mike Sullivan, NRCS state conservationist for Arkansas.

"There is a critical decline of groundwater in the aquifer beneath these increasingly irrigated acres. NRCS uses its programs and technical expertise to install systems that convert from groundwater use to abundant surface water utilizing the state's annual rainfall and to promote efficient irrigation water management," Sullivan said.

Irrigation Conservation in Arkansas

Row Crop Irrigation Information

	IRRIGATED ACRES IN ARKANSAS BY YEAR AND CROP					2017-2021
CROP	2017	2018	2019	2020	2021	Average
CORN	595,000	645,000	735,000	605,000	830,000	682,000
COTTON	407,340	446,400	567,300	483,600	441,750	469,278
PEANUTS	29,000	23,000	33,000	38,000	35,000	31,600
RICE	1,104,000	1,422,000	1,126,000	1,441,000	1,194,000	1,257,400
SOYBEANS	2,940,000	2,696,400	2,192,400	2,352,000	2,528,400	2,541,840
Grand Total	**5,075,340**	**5,232,800**	**4,653,700**	**4,919,600**	**5,029,150**	**4,982,118**
Percent of Total Acres	90%	91%	91%	91%	91%	91%



Irrigated acres in Arkansas have remained relatively steady over the past five years. The dip in 2019 can be credited to the highest June-August rainfall since 1996. Fewer acres required irrigation, lowering the total reported to the National Agriculture Statistics Service (NASS).

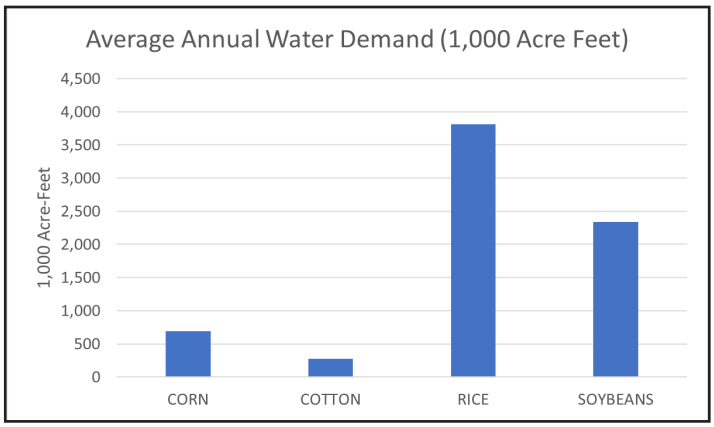
Average Irrigation Demands by the Primary Row Crops

CROP	2017-2021 Average Acres	Inches of Irrigation Water*	Annual Water Demand (Acre-feet)
CORN	682,000	12	693,642
COTTON	469,278	7	277,136
RICE	1,257,400	36	3,813,906
SOYBEANS	2,541,840	11	2,335,048
Grand Total	**4,950,518**		**7,119,732**

* Long-term measurements of agronomic crop irrigation made in the Mississippi delta portion of the lower Mississippi River Valley. Massey, Joseph H., et al.

(see Groundwater on Page 9)

"While Arkansas has an abundance of good quality groundwater in many parts of the state, groundwater is being depleted faster than the rate of recharge in the primary agricultural area for cultivated crops." **-- Mike Sullivan**



The 7.1 million acre-feet of water required to irrigate would cover the city of Little Rock (116.8 square miles) to a depth of 95 feet. Almost completely submerging the 7-story Federal Building!

Alluvial Aquifer

The Arkansas Department of Agriculture Natural Resources Division (NRD) reported in the Arkansas Groundwater Protection and Management Report 2020 that total pumping from the Mississippi River Valley Alluvial Aquifer (alluvial aquifer) was closer to 8.6 million acre-feet (after including municipalities and other agricultural pumping). That's 19 more feet of water over the city of Little Rock! The report emphasizes that according to the 2015 water use data, only 44.2 percent of the use rate from the alluvial aquifer is sustainable.

Surface Water Conversion – 100% reduction in alluvial aquifer use

NRCS is working to reduce the pumping demands on the aquifer through several Irrigation Water Management programs and partnerships. One primary tool to fight groundwater decline is the conversion to surface water. An average reservoir conserves 400 acre-feet of water use each year. Tailwater recovery pits can easily be refilled 3 times on average and produce a water savings of 45 acre-feet annually. Tailwater pits and reservoirs installed in the five-years of 2016-2020 are presented in the table. The surface water conversion also translates to significant cost savings to the producer in reducing pumping costs.

Conversion to Surface Water through Surface Storage (2016-2020)

	Certified	Acre-feet of Surface Water Conserved
Tailwater Recovery Pits	148	6,660
Reservoirs	74	29,600

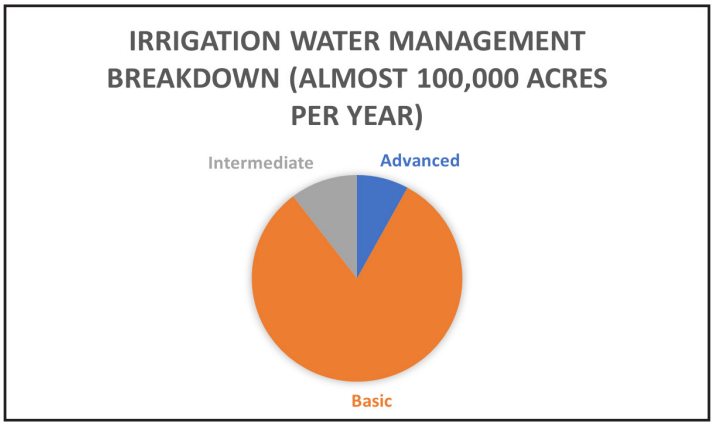
Land Leveling – 20-50% savings in irrigation pumping

Land leveling practice when combined with other practices such as Multiple Inlet Rice Irrigation (MIRI) can contribute at least a 20% savings in rice irrigation water use. NRCS helped to fund 71,831 acres of land leveling projects during the 2016-2020 period. Just in rice water use alone, this has saved an additional 43,575 acre-feet of water. When combined with IWM practices such as Alternate Wetting and Drying (AWD) or Furrow-Irrigated Rice, the water use in rice plummets to 50% of normal. NRCS has funded over 85,000 acres of the AWD irrigation practice from 2016-2020. A water savings of almost 130,000 acre-feet. Once the farmer witnesses the water savings from this practice, the method is most likely to expand to the rest of the rice acres on the farm and get repeated year after year, improving the water savings beyond what is reported.

Already, over 2000 acres of rice is planned to be converted to furrow irrigation over the next few years through EQIP programs. The FIR practice is catching on by itself due to the savings in fuel and equipment costs.

Irrigation Water Management – 20% savings in irrigation pumping

Basic IWM practices have been shown to reduce pumping of irrigation of water by 20%. The basic components of IWM include computerized hole selection and irrigation scheduling. From 2016-2020 nearly 100,000 acres per year of Arkansas farmland has been under Basic IWM practices or higher.



Additional IWM options such as flowmeters, surge valves, water level sensors, and pump automation can increase these savings even further. Averaging annual pumping demands across all crops generates an average of 1.4 acre-feet per year. Applying the IWM practice on the annual acres results in 26,000 acre-feet of water conservation per year.

(see Groundwater on Page 10)

Groundwater *(continued from Page 9)*

IWM Potential

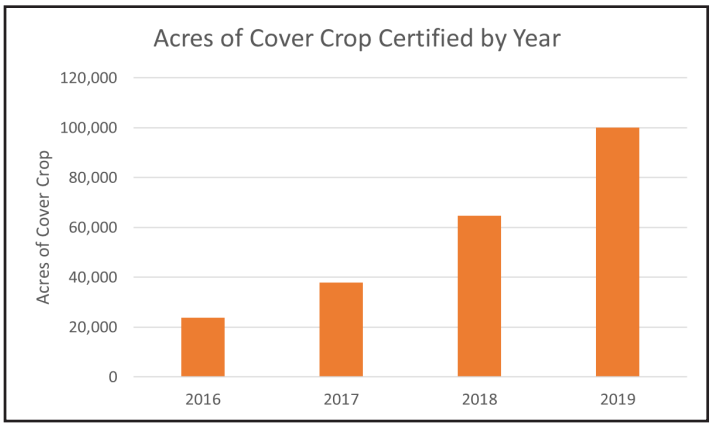
If the water management practices could become ubiquitous across all crops in Arkansas, pumping demand could be reduced by 36%. As more acres are converted to surface water, Arkansas farmers could soon achieve the goal of sustainable pumping on the alluvial aquifer!

CROP	2017-2021 Average Acres	Inches of Irrigation Water*	Annual Water Demand (Acre-feet)	Water Savings Method	Potential Water Savings	New Annual Water Demand (Acre-feet)
CORN	682,000	12	693,642	IWM	20%	554,914
COTTON	469,278	7	277,136	IWM	20%	221,708
RICE	1,257,400	36	3,813,906	AWD/FIR	50%	1,906,953
SOYBEANS	2,541,840	11	2,335,048	IWM	20%	1,868,039
Grand Total	**4,950,518**		**7,119,732**		**36%**	**4,551,614**

* Long-term measurements of agronomic crop irrigation made in the Mississippi delta portion of the lower Mississippi River Valley. Massey, Joseph H., et al.

Cover Crops

In addition to the IWM practices, cover crops are being promoted for their water conservation and overall soil health benefits. Cover crop acreage has been expanding due to the promotion by NRCS programs. These acres should continue to increase under the new Cover Crop Initiative sign-up just recently completed.



For additional information, contact State Conservation Engineer Gary M. Bennett at gary.bennett2@usda.gov. Most irrigation conservation practices are available for funding through the through the Environmental Quality Incentives Program (EQIP). To sign up for EQIP, visit your local USDA field service center.

To locate the local office, visit http://offices.sc.egov.usda.gov/locator/app. For more information NRCS programs, visit www.ar.nrcs.usda.gov.

Conservation Trends

(continued from Page 6)

Because of this increased conservation, the report estimates:

- Average annual water (sheet and rill) and wind erosion dropped by 70 million and 94 million tons, respectively, and edge-of-field sediment loss declined by 74 million tons.
- Nearly 26 million additional acres of cultivated cropland were gaining soil carbon, and carbon gains on all cultivated cropland increased by over 8.8 million tons per year.
- Nitrogen and phosphorus losses through surface runoff declined by 3% and 6%, respectively.
- Average annual fuel use dropped by 110 million gallons of diesel fuel equivalents, avoiding associated greenhouse gas emissions of nearly 1.2 million tons of carbon dioxide equivalents.

About the Report

For this report, farmer survey data was collected from 2003-2006 and again from 2013-2016. NRCS evaluates conservation practice adoption through the CEAP Cropland Assessment, using a combination of farmer surveys, land use and soils information, along with resource models.

CEAP project findings are used to guide USDA conservation policy and program development, along with assisting conservationists, farmers and ranchers and other land stewards with making sound and science-based conservation decisions.

Next Steps

The report also revealed that cropping patterns have changed over the years in response to climate, policy, trade, renewable energy and prices, presenting a nutrient management challenge. Improving the timing and application method of nutrients can allow production demands to be met while reducing the impacts of crop production on the environment.

NRCS plans to continue its focus on nutrient management conservation practices and strategies with vigorous outreach efforts to farmers and further engagement with partner groups to adjust to these changing trends.

For more information on CEAP, visit the CEAP webpage at https://www.nrcs.usda.gov/.

USDA Extends Application Deadlines for Partnerships for Climate-Smart Commodities Funding Opportunity

The U.S. Department of Agriculture (USDA) is extending the deadlines to apply for the Partnerships for Climate-Smart Commodities funding opportunity after requests from many stakeholders.

"There has been a high level of interest in the Partnerships for Climate-Smart Commodities funding opportunity, and we want to ensure that a diverse applicant pool is able to apply," said Under Secretary for Farm Production and Conservation Robert Bonnie. "USDA is extending the deadline for the funding opportunity to provide more time for these applications."

The new deadlines to apply via grants.gov are:

- First Funding Pool – by 11:59 p.m. ET May 6
  Proposals from $5 million to $100 million
- Second Funding Pool – by 11:59 p.m. ET June 10
  Proposals from $250,000 to $4,999,999

The Partnerships for Climate-Smart Commodities funding opportunity will finance pilot projects that create market opportunities for U.S. agricultural and forestry products that use climate-smart production practices and include innovative, cost-effective ways to measure and verify greenhouse gas benefits.

Funding will be provided to partners through the USDA's Commodity Credit Corporation for pilot projects to provide incentives to producers and landowners to:

- Implement climate-smart production practices, activities, and systems on working lands,
- Measure/quantify, monitor, and verify the carbon and greenhouse gas (GHG) benefits associated with those practices, and
- Develop markets and promote the resulting climate-smart commodities.

How to Apply

Public and private entities may apply, including:

- County, city or township governments
- Special district governments
- State governments
- Small businesses
- For profit organizations other than small businesses
- Native American tribal governments (Federally recognized)
- Native American tribal organizations (other than Federally recognized tribal governments)
- Nonprofits having a 501(c)(3) (other than institutions of higher education)
- Nonprofits that do not have a 501(c)(3) (other than institutions of higher education)
- Private institutions of higher education, or
- Public and State-controlled institutions of higher education.

In response to questions received from potential applicants, USDA has also provided additional clarity regarding requirements in the funding opportunity, including:

- The definition of "domestic applicant;"
- Producers' eligibility as beneficiaries of the funding; and
- Quantification requirements.

USDA is committed to equity in program delivery and is specifically seeking proposals from entities serving all types of producers, including small or historically underserved producers. Providing sufficient incentives to encourage producer participation and generating both verifiable greenhouse gas reduction and carbon sequestration benefits are critical to project success and will be considered in the evaluation criteria.

More Information

USDA published a Request for Information in September 2021 seeking public comment and input on design of this new initiative and used the nearly 400 comments received to inform this funding opportunity.

The funding opportunity has received praise from across multiple industries for its support to create innovative and cost-effective markets.

Visit usda.gov for additional information, including details on Partnerships for Climate-Smart Commodities and resources to support your application.

USDA to Invest up to $225 Million in Partner-Driven Conservation

The U.S. Department of Agriculture recently announced up to $225 million in available funding for conservation partners through the Regional Conservation Partnership Program (RCPP). RCPP is a partner-driven program that leverages collective resources to find solutions to address natural resource challenges on agricultural land.

This year's funding announcements include opportunities for projects that address climate change, benefit historically underserved producers and support urban agriculture.

"RCPP is public-private partnership at its best," said Natural Resources Conservation Service (NRCS) Arkansas State Conservationist Mike Sullivan. "We're harnessing the power of partnership to create lasting solutions to global challenges, like climate change, and support producers and communities who have been underserved in the past."

There are two types of funding opportunities under RCPP: RCPP Classic and RCPP Alternative Funding Arrangements (AFA). RCPP Classic projects are implemented using NRCS contracts and easements with producers, landowners and communities, in collaboration with project partners.

Through RCPP AFA, partners have more flexibility in working directly with agricultural producers to support the development of new conservation structures and approaches that would not otherwise be available under RCPP Classic. Project types that may be suited to AFA, as highlighted by the 2018 Farm Bill include:

- Projects that use innovative approaches to leverage the federal investment in conservation.
- Projects that deploy a pay-for-performance conservation approach.
- Projects that seek large-scale infrastructure investment that generate conservation benefits for agricultural producers and nonindustrial private forest owners.

USDA is accepting project proposals for both components of RCPP through 11:59 p.m. on April 13. View the funding opportunity on grants.gov for RCPP Classic and RCPP AFA.

Funding is open to agriculture and silviculture associations, non-government organizations, Indian tribes, state and local governments, conservation districts and universities, among others.

Partners are expected to offer value-added contributions to amplify the impact of RCPP funding in an amount equal to or greater than the NRCS investment.

Private landowners can apply to participate in an RCPP project in their region through awarded partners or at their local USDA service center.

NRCS Seeks Partners to Provide Technical Services Addressing Conservation

The Arkansas NRCS state office is seeking support from and opportunities to partner with like minded natural resource conservation partners.

The overall intent of this solicitation is to solicit partnerships to provide technical services that address the key conservation objectives and the following focus areas:

- Soil and Water Conservation,
- Environmental Quality Incentives Program,
- Conservation Stewardship Program,
- Agricultural Conservation Easement Program,
- Conservation Reserve Program, and
- Soil Survey Program.

Applicants must submit their applications via grants.gov by 11:59 p.m. Eastern Time April 29.

For technical issues with grants.gov, contact grants.gov applicant support at (800) 518-4726 or support@grants.gov.

Ted Glaub, farm manager of Charles H. Dicken Living Trust Farm in Ashley County, discusses his irrigation system with Ashley County District Conservationist Jennifer Griffin.

Irrigation Water Management Works Well for South Arkansas Family Farm

Story and photos by Reginald Jackson
NRCS Arkansas

Agricultural water has emerged as a critical natural resource issue and is Arkansas's largest water user. Irrigated agriculture on farms is essential to grow crops and accounts for a high percentage of the state's annual water consumption.

The USDA's Natural Resources Conservation Service (NRCS) can assist farmers with irrigation water management strategies tailored to their farm's specific needs.

Ted Glaub of Glaub Farm Management has been managing the 1,300-acre Charles H. Dicken Living Trust Farm in Ashley County for more than 20 years. The operation grows soybeans, corn, cotton and peanuts utilizing NRCS's Environmental Quality Incentives Program (EQIP). Glaub Farm Management made major improvements on Dicken Living Trust Farm to increase efficiency in production during that 20-year period. The most recent improvements made to the farm include tying a major relift into an existing tailwater recovery system to make one big recycle system.

"We are capturing water coming out of the bayou and putting it on the top of four fields on the Dicken Living Trust Farm that fall down to a tailwater recovery system," said Glaub. "The current tailwater recovery system (TRS) has one relift in the bottom two fields that captures everything there. The relift goes over to the west side of the farm, down to the south where there is another relift. All of that falls back to the tailwater recovery system. We've got another pit in place; once we get to the southern most point of the farm, we are going to begin using that one more efficiently. We hope to continue to keep moving and reusing

Ted Glaub and Jennifer Griffin discuss the tailwater recovery system.

(see IWM Works Well on Page 14)

IWM Works Well *(continued from Page 13)*

the water throughout the whole farm."

TRS is an Irrigation Water Management conservation practice that re-uses irrigation and storm water runoff on a producer's operation. TWR decreases groundwater pumping for crop irrigation by allowing producers to capture and store water from storms and irrigation run off in a reservoir. The captured water can then be redistributed through the farm's irrigation system.

TRS allows farmers to re-use and re-disperse captured water back onto crops, minimizing the amount of groundwater used on the fields. Captured water run-off from ditches is relocated to a nearby reservoir. When needed, a pumping system and pipeline push the tailwater from the reservoir into the farm irrigation system for re-distribution to targeted fields.

By allowing re-use of irrigation water, a tailwater recovery system can improve irrigation efficiency and use less groundwater or surface water. TRS can reduce groundwater pumping and reduce total pumping costs.

"I have been working with USDA and NRCS (formerly the Soil Conservation Service) since 1983," Glaub said. "Whenever a conservation program fits a client's farm operation needs and is advantageous, we considered it."

EQIP provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, increased soil health and reduced soil erosion and sedimentation, improved or created wildlife habitat, and mitigation against drought and increasing weather volatility.

"Mr. Glaub is utilizing EQIP on the Dicken Living Trust Farm for the following conservation practices, Irrigation Water Management, Pipeline, Structures, Nutrient Management," said Ashley County District Conservationist (DC) Jennifer Griffin. "When I came on board as DC, we had to do a modification on the project. Mr. Glaub is a wealth of knowledge and took his time to explain the back history of the project. Once we knew the background, Civil Engineering Technician Mark Robinson and I redrew everything."

"I'll give NRCS credit, we changed the design of the tailwater recovery pit to second level to shorten the amount of underground pipe and that's worked very well," Glaub said. "We have a whole team put together working to improve efficiency and sustainability working with Mother Nature as much as we can," said Glaub.

"EQIP promotes agricultural production and environmental quality as compatible goals," said Griffin. "It provides financial and technical assistance to install or implement structural and management conservation practices on agricultural land. Projects like the one on the Dicken Living Trust Farm expand on the work NRCS has been doing to conserve water and improve water quality."

Ted Glaub and Jennifer Griffin discuss the relift on the 1,300 acre Ashley County farm.

Alternative Crop:

First Generation Farmer Grows more than 50 Varieties of Vegetables on Half Acre

Story and photos by Creston Shrum
NRCS Arkansas

Intensive management, extensive research and hard work are paying off for one first generation farmer in Northwest Arkansas.

Twenty-year-old Jeremy Baranaskus grows more than 50 different varieties of crops throughout the season on about a half-acre near Sulphur Springs, Ark. While he grows everything from arugula to zucchini, the crops he grows most are baby greens, carrots and beets.

"On average, I rotate five different crops through each bed a growing season," he said. "I grow crops all year, during every season." The beds are all 30-inches wide and range in length from 50 to 100 feet.

His week consists of field work Monday through Wednesday. Thursday and Friday are spent harvesting, washing, and packaging produce for the Bentonville and Rogers farmers markets on Saturdays.

"I've been to numerous small alternative crop farms and Jeremy's operation stands out. He not only has a passion for farming, but for doing it in a way that benefits the soil and environment," said Mike Whitis, USDA Natural Resources Conservation Service district conservationist for Benton County.

Whitis, along with the Benton County staff, worked

(see Alternative Crop on Page 16)

Jeremy Baranaskus, a first generation farmer, discusses how he grows tomatoes in a high tunnel with Mike Whitis, Benton County district conservationist.

Alternative Crop *(continued from Page 15)*

Jeremy Baranaskus harvests lettuce for the farmer's market.

(Above) Micro greens are started in containers before planting in the high tunnel. (Below) Jeremy Baranaskus prepares a bed in the high tunnel.

with Jeremy to develop a conservation plan that included a 2,880-square-foot seasonal high tunnel; micro irrigation; irrigation water management; cover crops; mulching; crop rotation; nutrient management; and residue and tillage management, reduced till.

"The high tunnel has helped expand my growing season and almost paid for itself in the first year," Jeremy said. "It also protects my crops from harsh weather conditions."

He said his farm is certified naturally grown. With the help of NRCS, he is working toward being USDA organic certified. "I'm thrilled to support Northwest Arkansas with food from the farm to table," Jeremy said.

While working on several farms for about three years during high school in Northern Illinois, Jeremy decided he wanted to farm for a living. After doing a lot of online research and reading books on farming techniques, he started PrairieWoods Farm the summer of 2019.

The Ralston's are able to water their rice fields from water pumped from the Arkansas River through the Point Remove Irrigation Project.

NRCS Projects, Contracts Assist Ralston's with Irrigation, Expanding Farming Operation

Story and photos by Creston Shrum
NRCS Arkansas

In 1999, when Tim and Robin Ralston bought 250 acres in the Atkins Bottoms in central Arkansas, getting 20 bushels per acre of soybean was great on his non-irrigated crop. At the time, the average soybean crop in Arkansas produced around 35 bushels.

Fields along Kuhn Bayou were able to be irrigated with water from the bayou, but others in the bottoms were not. The thought of growing rice in the area wasn't feasible since a well would only support about 30-40 acres.

But, thanks to hard work, family and several USDA Natural Resources Conservation Service projects and contracts, the Ralston's recently became the first farmers in Arkansas to ship rice to China. Ralston's operation has also expanded to more than 5,700 acres from the 1,800 acres he farmed in 1999.

"We're able to irrigate roughly 80 percent of our land and about 90 percent of that is with surface water," Tim said.

Tim's first contract and conservation plan with NRCS was in 2004. Since then, he has had contracts through the

The Ralston's grow numerous varieties of rice on their 5,700 acre farming operation.

Point Remove Mississippi River Basin Healthy Watershed Initiative, Regional Conservation Partnership Program Rice Stewardship Program, Environmental Quality Incentives Program and Conservation Stewardship Program.

These contracts have provided technical and financial assistance to the Ralston's to install 10 pumping plants,

(see Ralston's on Page 18)

Ralston's *(continued from Page 17)*

10,713 feet of irrigation pipeline, 24 water control structures, 50 acres of filter strips, land level 1,090 acres and plant 1,100 acres of cover cops, The contracts also provide irrigation water management on 2,700 acres, nutrient management on 2,100 acres and residue tillage management on 1,132 acres.

These conservation practices allow the Ralston's to minimize the surface water needed for crop production and eliminate runoff during the growing season. They are now able to eliminate erosion and reduce nutrient loss when the water is drained from the field for harvest through the use of grade stabilization structures and heavy use areas. This system approach conserves water, improves soil health, reduces erosion and reduces nutrient runoff which would have entered the Arkansas River.

To improve their cattle operation, the Ralston's have used cross fencing, watering facilities, livestock pipelines, stream crossing and pasture and hayland planting.

NRCS projects like the Lake Conway-Point Remove Wetland Reclamation and Irrigation Project, which was completed in 2006, have helped Ralston and other landowners in Pope and Conway counties improve water quality and quantity. The project provides irrigation water to 14,000 acres of cropland in Pope and Conway counties and winter water for the 6,000-acre Ed Gordon Wildlife Management Area.

"Through the Point Remove irrigation project, water is pumped from the Arkansas River through a flume where we pump out of to our fields," Ralston said. "Afterwards, the water is sent back to the river crystal clear."

"As the Ralston's increased their operating acres, we (NRCS) increased the conservation plans to cover these new farms," said NRCS Resource Conservationist Wes Duvall, who has worked with the Ralston's since 2008 to implement their conservation and management practices. "It has been a pleasure to assist the Ralston family on the conservation side of their farming operation and see their success the past 13 years," Duvall said.

The Ralston's now produce enough rice to mill it on site, market it, package and ship it from their Atkins Bottoms headquarters. They grow specialty red rice (only in color), purple (which is aromatic also), jasmine and basmati white rice, aromatic purple, a red, purple and brown mix called Nature's Blend and a whole grain red rice. All schools in Arkansas are also using their golden rice. Their rice is sold in 6,000 grocery stores nationwide.

A relift (above) and flow meter (below) are vital parts of the Ralston's irrigation water management plan.

Harvesting rice on the Ralston farm in the Atkins Bottoms in Pope County.

Recycling Program Turns Food Waste into Compost

by Creston Shrum
NRCS Arkansas

A USDA Community Compost/Food Waste Cooperative Agreement grant to the city of Fayetteville is helping turn food waste into compost instead of landfill material.

Through the Mobile Food Waste Collection and Compost Education Program the city of Fayetteville, Ark., is hoping to educate area residents on the importance of recycling food waste and how compost can increase soil health.

"Fayetteville is an eco-conscious city for composting and recycling," said Taylor Gladwin, recycling and environmental educator with the Boston Mountain Solid Waste District and city of Fayetteville. "This grant has allowed us to increase awareness."

Gladwin's position is funded through the grant along with a mobile food waste recovery trailer used at events and festivals to collect food waste and educate residents.

The city is also providing residents with 5-gallon food waste containers for the home so residents can drop it off at several sites around the city. So far, 378 buckets have been passed out and there has been an uptick in donations. Each person who receives a bucket signs a commitment pledge to bring the waste to a collection site. The waste is then delivered to the Fayetteville compost facility.

"Several residents said they had been wanting to start composting their food waste and this program provided an easy way for them to start composting immediately," Gladwin said.

"In 2019, before this pilot program began the city took in 94 tons of food waste in the 1st and 2nd quarters, in 2021 in the first two quarters we received 381 tons," Gladwin said. "In 2020, we collect 608 tons total."

As the compost educator, Gladwin provides educational materials to the public, including information about the importance of food-waste and yard-waste composting, the life-cycle of organic waste, and how organics in landfills can contribute to the production of methane gas, a greenhouse gas that contributes significantly to global climate change.

A USDA grant helped the city of Fayetteville purchase a mobile food waste recovery trailer (above) and set up recycling centers (below) to collect food waste.

She also gives presentations to businesses, students, and community groups, as well as interactive programs with students of all ages online and in-person.

The primary goal of the Community Compost/Food Waste Cooperative Agreement grant is to assist local governments with projects that develop and test strategies for planning and implementing strategies that will generate compost; increase access to compost for agricultural producers; reduce reliance on, and limit the use of, fertilizer; improve soil quality; encourage waste management and permaculture business development; increase rainwater absorption; reduce municipal food waste; and divert food waste from landfill.

The grant funding is matched by funds from the city's Recycling and Trash Collections Division and the Boston Mountain Solid Waste District.

Items that can be recycled

- Fruits and vegetables
- Coffee grounds and tea with filters
- Consumable liquids
- Diary: milk, cheese, yogurt
- Bread, dough, bakery items, pasta, grains
- Eggs and egg shells
- Food-soiled paper: paper bags, towels and napkins
- Cooked meats and fish: shells, bones, wooden skewers, toothpicks
- Processed foods: pizza, cereal, chips, crackers, cooked meats, plate scraps