A CONVERSATION ABOUT WATER USE VALUE IN THE BASIN STATES: GEORGE FRISVOLD

By Julie Murphree, Arizona Farm Bureau Director of Strategic Communications



Says Frisvold, "Agriculture in the Southwest is being called up to conserve a lot of water so that cities don't have to. This comes at a cost."

ecognized along with colleagues Ashley Kerna Bickel and Dari Duval for the Extension's Economic Impact Assessment Team Award in the recent past, George Frisvold, Ph.D., leads what I personally call the "A-Team" in economic research. Their agricultural-based economic assessments on the local, state, and national levels have helped define and advance the true contributions of Arizona agriculture's \$23.3 billion industry (watch for a newly revealed number this fall since the most recent Census of Agriculture just came out). Dr. Frisvold and the team approach their economic research with the expected caution, calmness, and curiosity required of one mining for nuggets of understanding. Today, they have a new study to unveil.

Joining the faculty UArizona in 1997, Dr. Frisvold previously was a visiting scholar at the National Institute of Rural Development in Hyderabad, India, a lecturer at Johns Hopkins University, and Chief of the Resource and Environmental Policy Branch of US-DA's Economic Research Service.

His research interests include domestic and international environmental policy, as well as the causes and consequences of technological change in agriculture. In 1995-96, Dr. Frisvold served as a Senior Economist for the President's Council of Economic Advisers with responsibility for agricultural, natural resource, and international trade issues.

He is currently the Bartley P. Cardon Chair of Agribusiness Economics and Policy and an associate editor for two journals: Pest Management Science and Water Economics and Policy. In 2020, Dr. Frisvold co-authored the National Academies of Science, Engineering, & Medicine report, Safeguarding the Bioeconomy: Finding Strategies for Understanding, Evaluating, and Protecting the Bioeconomy while Sustaining Innovation and Growth.

And so, with his research efforts on water use in the basin states recently completed, I decided to ask him in our conversation series just what "nuggets of understanding" we in agriculture can glean from the research and why we can be excited about the

Arizona Agriculture: You and Dari Duval released a study at the end of last year called "Agricultural Water Footprints and Productivity in the Colorado River Basin." Some exciting findings emerged. But before we dive into the high points, besides the obvious, what prompted the study?

Frisvold: There's been a lot of interest by both consumers and the food industry in measuring the environmental footprints of products people buy. You hear about carbon footprints. Another is the water footprint - how much water is consumed in the production of different products. For example, you can go online and see an estimate of how much water is used to make a pizza. We were interested in how much water is used to grow crops across counties in the Colorado Basin. Because many different types of crops are grown, we used a common measure, dollars. We looked at how much water is consumed to produce \$1,000 worth of crops in different counties. We thought this water footprint concept would also be useful for thinking about the implications of cutbacks in Colorado River water deliveries for regional crop production.

Arizona Agriculture: We know that the Colorado River is over-allocated among the upper and lower basin states. Can the study help address how to equitably adjust proposed cuts especially since unprecedented water-use cutbacks have been proposed and mostly toward agriculture? If so, what do those who analyze the study need to recog-

Frisvold: You can flip the water footprint over to ask, "For every acre-foot of water used, how many dollars' worth of crop do you get?" This tells you, if you take water away from agriculture, how much does society give up in the value of food production or farm income? Agriculture in the Southwest is being called up to conserve a lot of water so that cities don't have to. This comes at a cost. Beyond that, the costs will be higher if you take water away from some areas than others. Our study helps answer the question, where will these costs be higher and where will they be lower?

Arizona Agriculture: Now to get to the good stuff, what did this peer-review study reveal? Another way to ask it is, what are the key points?

Frisvold: There are big differences between counties in the Upper Colorado Basin (parts of Wyoming, Colorado, Utah, and Northwest New Mexico) and the Lower Basin (Arizona, Southwest New Mexico, Southern Nevada and Southern California). In the Lower Basin, farmers used an average of 1.2 acre-feet on average to produce \$1,000 of crops. In the Upper Basin, farmers used more than 7.6 acre-feet. Within the Lower Basin, the water footprint is even lower in the Southwestern half of Arizona. We also looked at gross farm income net of crop-specific costs. Four counties, Imperial and Riverside in California and Yuma and Maricopa in Arizona, accounted for 75% of regional net crop revenues while consuming less than half of the Basin's irrigation water. If you also include Pinal, La Paz, Graham, and Cochise counties in Arizona, these eight counties accounted for 90% of crop net returns and two-thirds of irrigation water consumed. This means all the remaining Basin counties consumed one-third of the region's irrigation water – which is a lot of water -- but generated just 10% of Basin net crop revenues.

Arizona Agriculture: So, you are saying the Arizona counties have among the lowest water footprints in the entire basin. Please expand on this. Is our use of advanced irrigation technology part of the reason why?

Frisvold: Two big reasons are climate and labor availability. Our warm, dry climate leads to higher yields, a longer growing season, and multi-cropping. This climate also allows growers to produce high-value winter vegetable crops in North America when no one else can. However high-value vegetable crops are labor-intensive, so access to labor from Mexico is critical.

Arizona Agriculture: Also expand on the point that while some fixate on high water use per acre of Arizona agriculture, Arizona agriculture has low water use per dollar.

Frisvold: We found that counties that used more water per acre used less water per dollar and vice versa. Production systems in warm, dry areas have higher water requirements, but they are also really efficient. The other side of the coin is that production systems with low water requirements don't produce much for the amount of water they do use. People fixate on water use per acre See WATER: GEORGE FRISVOLD Page 4

CRUNCHING OUR AGRICULTURE NUMBERS AND JUDGING THE

OUTCOMES

By Julie Murphree, Arizona Farm Bureau Director of Strategic Communications

come out to mull over. Some of these numbers are sobering, and reflective and might also generate hopeful discussions. First, the

On February 13th, the United States Department of Agriculture (USDA) released its 2022 Census of Agriculture report revealing 141,733 fewer farms in 2022 than in 2017. Plus, the number of farm acres fell to 880,100,848, a loss of more than 20 million acres from just five years earlier. No other way to read the numbers exists but that farm numbers and acres in the United States have fallen significantly in five years.

At the state level, Arizona has 2,376 fewer farms (19,086 farms in 2017, and 16,710 farms in 2022 for a percentage decrease of 12%) and 600,732 fewer acres in farming. Possibly until we look at county-specific data, it will be unclear where most of the acre-reduction occurred: cropland, rangeland, tribal land, leased land, or other. Though one line shows the total Arizona "cropland" acres in production at 1,286,648 in 2017 and at 1,221,799 in 2022, a decrease of 64,849 cropland acres, the full picture will require mining the data at a deeper level.

"The latest census numbers put in black and white the warnings our members have been expressing for years," said American Farm Bureau Federation (AFBF) President Zippy Duvall. "Increased regulations, rising supply costs, lack

n the last few weeks, a slate of numbers has of available labor and weather disasters have all squeezed farmers to the point that many of them find it impossible to remain economically sustainable.

> "Family farms not only help drive the economy, but they also allow the rest of the nation the freedom to pursue their dreams without worrying about whether there will be enough food in their pantries. We urge Congress to heed the warning signs of these latest numbers. Passing a new farm bill that addresses these challenges is the best way to help create an environment that attracts new farmers and enables families to pass their farms to the next generation."

A Drop in Farm Income

We were already under USDA's Economic Research Service (ERS) foreboding news (February 7th) that farm income is forecast to continue to fall in 2024 after reaching record highs in 2022. Net farm income, a broad measure of profits, reached \$185.5 billion in the calendar year 2022 in nominal dollars. After decreasing by \$29.7 billion (16%) from 2022 to a forecast of \$155.9 billion in 2023, net farm income in 2024 is forecast to decrease further from the 2023 level by \$39.8 billion (25.5%) to \$116.1 billion. Net cash farm income reached \$202.3 billion in 2022. After decreasing by \$41.8 billion (20.7%) from 2022 to a forecast of \$160.4 billion in 2023, net cash farm income is forecast to decrease by \$38.7 billion (24.1%) to \$121.7 billion in See CRUNCHING OUR AG NUMBERS Page 7



ARIZONA FARM BUREAU GENERATED A STRONG PRESENCE AT AMERICA'S LARGEST GATHERING OF FARMERS AND RANCHERS

Staff Reports

hile one of the smaller member states, Arizona Farm Bureau frequently has a strong competitive presence during the American Farm Bureau Federation's (AFBF) Annual Meeting, held this year at the end of January in Utah. And it happened again this year. Much of this is thanks to our Young Farmer and Rancher program where our youth can compete in Discussion Meet, Achievement Award, and Excellence in Ag. This year, Arizona Farm Bureau's young farmers and ranchers competed in the Discussion Meet and Excellence in Ag and placed in both!

Saturday evening, the Cultivation Center announced Graham County's Dalton Dobson as a Sweet 16 candidate sending him on with the other 15 competitors for another round of competitive discussions.

"The Discussion Meet allowed me to not only meet a lot of really cool young agriculture professionals from around the country but also pushed me to develop a greater understanding of our issues," said Dalton Dobson. "The Discussion Meet is a great competition that helped me develop my skills to be a better leader and advocate for agriculture."

While Dobson did not move on to the Final Four, his placement in the group of 16 was a tremendous achievement when as many as 35 to 45 states annually compete in the Discussion Meet at the AFBF Convention.

Later that same evening, the Excellence in Ag Top 10 was also announced, and Ashley and Ben Menges were among the Top 10. This sent them on to compete with the nine other finalists for the big announcement late Monday morning during the closing general session.

And place they did! Ben and Ashley Menges placed second in the national compe-

"While working on specific issues related to agriculture is what Ashley and I are passionate about, the best aspect of our involvement in Farm Bureau is the lifelong friendships we have made," said Ben Menges, runner-up in the AFBF Excellence in Ag Competition. "We're forever grateful to all our friends, Arizona and New Mexico Farm Bureau mem-

bers and staff, who helped us prepare for the competition. We are proud have represented Arizona agriculture in this arena and we look forward to our involvement in the years to come."

Sunday's Events Were Memorable

Of special note, Arizona Farm Bureau's own Sherry Saylor was the speaker for the Sunday morning service and gave an uplifting talk on



Ben and Ashley Menges place second in the Excellence in Ag Young Farmer & Rancher Competition.

faith, family and farming. Her words were a true encouragement to all who attended.

Sunday's slate of activities included two general sessions, 12 workshops, the live pitch competition for the final four Ag Innovation Challenge teams, and AFBF President Zippy Duvall delivering his keynote remarks during the opening general session, and the coveted state award winners were announced. Plus, Arizona Farm Bureau President Stefanie Smallhouse said the opening prayer during the Opening General Session, a recognition given to a state showing the most member growth that Arizona earned with an overall growth percentage of 8%.

Arizona Farm Bureau was also recognized for its efforts in program and leadership efforts. The Awards of Excellence recognize state Farm Bureaus that demonstrated outstanding achievements in four program areas: Advocacy, Coalitions & Partnerships, Engagement & Outreach and Leadership & Business Development. Arizona Farm Bureau once again placed in all four categories and was recognized on stage.

The mid-general session, which began at 4 p.m. Mountain Time, featured an informative and motivational keynote address from global futurist and best-selling author Jack Uldrich.

Monday Highlights

Secretary Tom Vilsack addressed the closing general session on Monday, where he announced more than \$200 million in loans and grants for fertilizer production and

"I think it's important for us to recognize as a country the incredible contribution that is made by farmers and ranchers and producers that, indeed, makes our country the strongest and most powerful in the world," said Secretary Vilsack. He also discussed conservation, consolidation, and loss of farmland.

But the Monday highlight for Arizona Farm Bureau was when Ben and Ashley Menges were announced as Runners Up in the Excellence in Ag competition, placing them second among the top 10 competitors in that Young Farmers and Ranchers Competition.

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THE HONORABLE MENTION GOES TO YOU, THE VOTER

By Julie Murphree, Arizona Farm Bureau Director of Strategic Communications

t's an election year. Time to talk about politics, well at least elections.

Before coming to work for the Farm Bureau, I'd gone nearly every year to Washington D.C. when I was part of the National Cotton Council's Cotton Women's Committee. The once near-speechless awe I'd maintained for our political leaders had faded.

This change of perspective made me nervous. Had I become a cynic about politics? Maybe my attitude was now defined by a more pragmatic transformation since everyone says this can happen with age.

One D.C. trip experience gave me renewed hope. In 2007 I had an epiphany moment when joined with Arizona Farm Bureau's D.C. delegation to meet our Congressional leaders. In D.C. that year, I was separate from the group as I'd just left a gathering with

the American Farm Bureau's Women's Leadership Committee after giving a presentation. Heading the Farm Bureau delegation's way, I ended up in Senator Jon Kyl's office about 10 minutes ahead of the group. While I waited in the office, Senator Kyl walked in trailed by some of his staff.

"You must be with the Arizona Farm Bureau group," Senator Kyl said, as he stuck out his hand to shake mine, noting my name badge. Then, he sat down next to me, and we chatted for about five minutes. Flattered, I answered every question the Senator asked (a role reversal for my journalistic questioning of everyone else) and for a moment felt like we were simply two American citizens dreaming of the best for this country, not the Senator and the constituent haggling out the importance of our position on an issue. Jon Kyl didn't act like a politician to me; he reflected his humanity, the unabashed "Joe, well Jon, Citizen." Retired from the U.S. Senate now, Senator Kyl's statesman-like qualities should be a benchmark for all See THE HONORABLE MENTION GOES TO Page 4

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WATER: GEORGE FRISVOLD continued from Page 1

because it is relatively easy to measure. However, it isn't that useful for evaluating water use or developing water conservation policies. There are good economic reasons why farmers are growing the crops they are growing in Arizona. Our results suggest there can be steeper economic costs to changing this in Arizona compared to other parts of the Basin.

Arizona Agriculture: What was most surprising to you about the study?

Frisvold: I had a sense that water productivity was higher in the Lower Basin than the Upper Basin. What surprised me was just how much higher it is - more than 6 times higher. When we've shown the result that counties that use less water per acre use more water per dollar, the universal reaction has been, "Wait, what??" It makes sense if you think about it a bit, but people find it counterintuitive.

Arizona Agriculture: What did it confirm for you that until the data was compiled and analyzed, you could not highlight or prove?

Frisvold: You hear in the media and elsewhere the question, why do they grow crops in the desert? The results highlight that desert agriculture uses water very efficiently. In dollar terms, you get a lot more "crop per drop." People like to consume fresh vegetables all year round and are willing to pay for that. That accounts for high values per acre-foot. A lot of crop production has very high returns, more than \$1,000 per acrefoot, but there are also about 3 million acre-feet used (mostly in the Upper Basin) that generate less than \$250 in gross returns per acre-foot.

Arizona Agriculture: What is the biggest thing you hope our agriculturalists take away from this study and certainly our policymakers?

Frisvold: For policymakers, I hope our results counter the fixation on water use per acre and shift thought more to the value of production per acre foot or how much value is lost when you cut water from highly productive areas. Payment rates for voluntary agricultural water conservation under the Inflation Reduction Act are much higher for the Lower Basin than the Upper Basin. Our analysis suggests this makes good economic sense. Arizona growers believe they are pretty efficient at using water. This study puts more solid, independent numbers behind that belief.

Arizona Agriculture: In the study's conclusion, two further areas of research are proposed. Explain to our readers why additional research is needed.

Frisvold: We found that the Lower Basin has a much lower water footprint than the Upper Basin. We've started new research to answer why that is so. So far, we've found that having warmer winter temperatures and being on the US-Mexico border explains about two-thirds in the differences between counties. Right now, we're using closeness to the border as an indirect measure of labor availability. People may not see an obvious connection between labor availability and water, but labor allows us to get a lot of value from the water we use. The water consumption data we used to construct water footprints are only available every five years and with lags. We are exploring alternative measures that capture the same thing but are available regularly and without long lags. People need to know about the value of irrigation water now, not five or more years ago.

Looking at cash rent data, which is available yearly and released promptly by USDA, looks promising. We are exploring how cash rent data might help inform voluntary water conservation payment programs.

THE HONORABLE MENTION GOES TO continued from Page 2

aspiring candidates.

Every elected official starts as an average American citizen before they become a candidate for office and then serves in those honorable positions once elected. No one is exempt from being the "new kid on the block, or the steps of the Capital. At their core, they are simply everyday Americans; some do this well, and others need to be voted out when they lose focus on their constituents.

As constituents, by remaining grounded in the reality of politicians' humanity (even if they are missing their humility), we as citizens can exhibit the statesmanlike qualities of disagreeing with our elected officials agreeably as protocol dictates.

In the bigger picture, if money, time and intimidation were not a deterrent, would you be willing to run for office on the local, state, or national level? A good chunk of our citizenry is well-qualified to run for office. Our system of government relies upon those of us who are willing to step up and participate in the public discourse and exchange of ideas that occur in our election system. Farm Bureau's Candidate School can help. We plan to host this training every off-election year in the fall.

A candidate's lack of "political" experience shouldn't disqualify them. That's fixable. The fact that we're experiencing the day-to-day challenges of American life qualifies us. And for those of us who have gone through leadership training within the Farm Bureau family, we gain qualifications we thought we'd never possess.

The idea of political service should certainly not be discounted by those in Farm Bureau leadership. A core competency of ours is to develop leadership and advocacy skills if you get involved in Farm Bureau activities. In our own Arizona Legislature today, we

can count a handful of legislators with farm backgrounds and grounded leadership that they credit the Farm Bureau with helping to develop. Arizona legislative Senator Sine Kerr wrote an entire editorial about this very fact.

But also remember that while serving in public office is a great way to have an impact, you do not have to run for office to make a difference. Support those candidates who share your perspective and will fight for your interests. Encourage your friends and those who share your views to do the same. Take the time to develop relationships with elected officials at all levels of government. The Arizona Farm Bureau creates numerous opportunities for you to meet your legislators through our programming. Leadership training and more.

And once the dust settles and the candidates are seated, we place the "Honorable" before their name. This is only the beginning of the hard work for you and me. They are elected by you and me to reflect our needs and perspectives, their constituents. Our engagement with our political leaders shouldn't end after we vote them into office. It only just begins. If we stay involved, we help hold them accountable.

So, the next time you write to your representative because you're staying engaged, certainly place the word "Honorable" before their name and title. But remember who gave them that honor.

Editor's Note: Written some time ago, I pull this commentary out occasionally, during election years to remind ourselves just how important our role is in participating in this great country we call America.

Importance of the Mycorrhizae Membrane Advertisement

By PAUL SCHNEIDER JR., AG-USA

Mycorrhizal fungi are far more important than most farmers have imagined.

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When one uses herbicides, pesticides, nematicides or fungicides, when one applies excessive fertilizer and does excessive soil cultivation, it kills off helpful fungi. In reality, most farm land doesn't contain very much mycorrhizae. In its absence, plants must rely exclusively on their roots to take up nutrients. This isn't good,

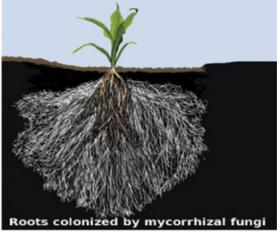
because most plants were designed to need the help of fungi.

A plant's root system has a 1,000th the surface area of a fungi membrane. Without the help of fungi, nutrient uptake sometimes decreases by 70% or more. We need greater nutrient uptake in our food to avoid chronic, diet-related diseases like Alzheimer's, cancer, heart disease and immunological diseases.

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Soils are often toxic, and most soils are out of balance. Without a mycorrhizal fungi membrane, plant roots are left to function hydroponically. They simply suck up water from the soil with whatever soluble anions are present in the solution, like nitrates, sulfates and potassium. They also suck up toxic ions like aluminum, cadmium, and lead.

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SAVE THE DATE

AZFB ISSUE ADVISORY COMMITTEE MEETINGS COMING SOON

ark your calendars for April 30th! Back by popular demand, we are excited to host our IACs in person at the State Office in Gilbert this year. As you all know, this serves as an important process for our grassroots policy development. These meetings are a great opportunity for our committees to begin the discussions on policies impacting our members, rural Arizona, and importantly agriculture. We will hear from American Farm Bureau Staff on key issues affecting the industry, bring together our subject matter experts, and have an opportunity to start identifying and shaping our policy needs for this year.

We have re-designed our committees to accommodate a one-day in-person event. If you missed our previous article, we have consolidated committees to accommodate a one-day event. Three committees will meet in the morning, with all committees convening together for lunch, and then the remaining three will meet in the afternoon. Below is an outline of the agenda, and we look forward to seeing all the committee members and to the discussions that are so important to our grassroots policy development process. After all, that is what makes the Arizona Farm Bureau such a great organization!

Agenda

9:30 am 9:45 am 10:00 am Registration for Morning Committees Welcome and Overview – Training Room

Commodity Committee Breakouts

- Ag Labor
- Crops
- Environment and Land Use

11:30 am Noon

1:45 pm

Registration for Afternoon Committees

Lunch and Presentation

Commodity Committee Breakouts

- Farm Policy
- Livestock
- Water



We encourage you all to start thinking and surfacing those issues that impact you and your livelihoods. Take a look at our policy book, found on our website at www.azfb.org, and if we do not have a policy that guides our staff and volunteers on those issues, please take the time to submit those through the electronic form found on our website or scan the QR code above to submit from your smartphone.

We would like to thank all our dedicated members who serve on the committee and look forward to some great discussions in April.



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RESULTS FROM THE 2022 CENSUS OF AGRICULTURE

By Dave DeWalt, State Statistician, USDA NASS, AZ Field Office

t the recent USDA 2024 Agricultural Outlook Forum, the American Farm Bureau Federation's Chief Economist, Dr. Roger Cryan, gave a presentation on why he loves the Census of Agriculture, conducted every five years. He mentioned the rich and incredibly detailed information that comes from the Census of Agriculture, a data set that will be used quite a bit over the next five years by the Farm

Not only did Dr. Cryan mention the data is available at the national, state, and



The latest Census of Agriculture releases and reveals a

reduction in farms and farm acres.

county levels, but he also spoke of how valuable the data is to producers, to businesses that supply the producers, to those who study agriculture (researchers), to policymakers, and to basically everyone who depends on farm production for our food, fiber, and fuel.

The results from the 2022 Census of Agricul-

ture were released on February 13th. The trends across the United States and Arizona are similar in several ways, but also somewhat different due to some of the unique aspects of Arizona agriculture. Following are just a few highlights of the results at both the U.S. level and the Arizona level.

The number of farms continues to decrease across the U.S. and in Arizona. The U.S. number of farms, at 1.90 million, dropped 7 percent from 2017. The Arizona number of farms dropped 12 percent to 16,710.

What types of farms led to the decline? Across the U.S., all but the largest farms. those with more than \$500,000 in sales, showed a decline from how many there were in 2017. There was an 18 percent increase in the number of farms across the U.S. with sales greater than \$500,000. Across Arizona, however, those same-size farms, with more than \$500,000 in sales, were virtually the same as they were in 2017. All the other smaller farms decreased in number except for those farms with \$25,000 - \$49,999 in sales. The size of Arizona farms increased in number by 19 percent or 95 farms from 2017.

Almost 83 percent of Arizona's agricultural commodity sales came from 177 farms with sales of \$5 million or more. This relatively high percentage of sales is significantly different from the U.S. in which farms with sales of \$5 million or more represented only 42 percent of total U.S. sales. Almost 94% of the sales in Arizona came from only 433 Arizona farms, those with sales of \$1 million or more. Maricopa, Yuma, and Pinal counties remain in the top 40 of all U.S. counties in value of sales.

Harvested cropland across the United States was down 6 percent, very similar to the decrease of 5 percent in Arizona. There were increases in harvested cropland in Cochise and Maricopa counties in 2022, but these increases were more than offset by decreases in Pinal, Graham, La Paz, and Yuma counties.

Arizona farms and ranches produced \$5.20 billion in agricultural products in 2022. The majority (58%) of the sales were from crop sales. The Vegetable/Melon/Potatoes category led with 27.5% of all sales, followed by Milk (22.4%) and Cattle (14.0%). With farm production expenses of \$4.14 billion, Arizona farms had a net cash income of \$1.21 billion. Net cash income rose to \$72,599 per farm in Arizona, not that much different than the U.S. net cash income of \$79,790 per farm.

Nearly 2 of every 3 Arizona farms had internet access in 2022, an increase from 57.4 percent in 2017. In contrast, however, slightly more than 3 out of every 4 farms and ranches across the United States had internet access.

The average age of all U.S. producers was 58.1 years in 2022. The average age of Arizona's 29,100 producers, however, was 60.1 years. Gila County producers had the highest average age in Arizona at 62.0 years and La Paz County producers were the youngest at an average of 55.6 years. Across Arizona, 16.5 percent of the producers were at least 75 years old, not that much different than those across the U.S. in which 13.8 percent of the producers were 75 years old or older. In Arizona, 7.2 percent of the Arizona producers were considered young producers, those producers less than 35 years of age. Nationally, 8.8 percent of U.S. producers were under 35 years old.

There is at least one American Indian producer on 62 percent of Arizona's farms and 58 percent of all Arizona producers are American Indian. Of these American Indian producers, 52 percent are female. Due to the demographics of the 29,100 Arizona producers, Arizona continues to have one of the highest percentages of female producers, at 48 percent. Nationally, only 35 percent of U.S. producers are female.

Almost 1 in 4 Arizona producers is a New and Beginning Producer, one with less than 10 years' experience operating a farm or ranch. The U.S. percentage is 30 percent. Veterans, those who reported having served or currently serve in the U.S. military, account for 7.4 percent of Arizona producers compared to the U.S. 9.1 percent.

Another item that Dr. Cryan mentioned at the Agricultural Outlook Forum was the confidentiality of the data that producers provide NASS. Not only does NASS ensure that individual data is not shared with anyone outside of NASS, by law, but no statistics will be published if the summarized numbers do not pass the strict disclosure rules of publication.

I want to thank every one of Arizona's farmers and ranchers who responded to the 2022 Census of Agriculture, especially those who reported online which greatly reduces the costs of collecting data. Lastly, I want to thank the Arizona Farm Bureau and its leadership for sharing with their members how important the Census of Agriculture data is to agriculture at the national, state, and county levels.

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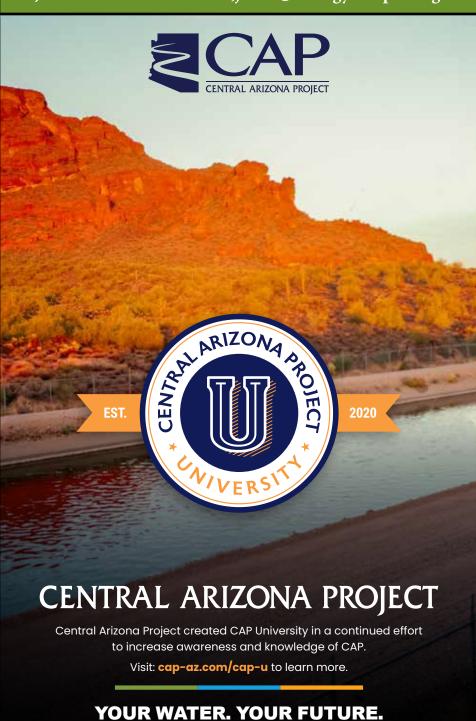
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1 Deductible required. 2 Immediate family members include father, mother, husband, wife, son, daughter, brother, sister, grandfather, grandmother, father-in-law, mother-in-law, sister-in-law, brother-in-law, and domestic partner and civil unions recognized under State law.

CRUNCHING OUR AG NUMBERS continued from Page 1

In inflation-adjusted 2024 dollars, net farm income is forecast to decrease by \$43.1 billion (27.1%) from 2023 to 2024, and net cash farm income is forecast to decrease by \$42.2 billion (25.8%) compared with the previous year. If realized, both measures in 2024 would fall below their 2003-22 averages (in inflation-adjusted dollars).

Tight Cattle Inventories for the Foreseeable Future

Savs AFBF Economist Bernt Nelson, "USDA's January and July Cattle Inventory reports, released toward the end of each respective month,

0 2003 2005 2007 2009 2011 2013 2015 2017 2019 2021

provide the total inventory of beef cows, milk cows, bulls, replacement heifers, other steers and heifers, and the calf crop for the current year. With drought and high input costs compelling farmers to market a higher-than-normal percentage of female cattle, the most recent cattle inventory dropped to lows not seen in decades. This Market Intel will provide an analysis of the Jan. 1 inventory, which will set the tone for cattle markets in 2024.

"This is a bullish report. All cattle and calves in the United States on Jan. 1, 2024, were 87.2 million head, 2% lower than this time in 2023. This is the lowest Jan. 1 inventory since USDA's 82.08 million estimate in 1951. The calf crop is estimated at 33.6 million head, down 2% from last year and the smallest calf crop since 33.1 million in 1948."

Nelson's report goes on to lay out clearly what's going on in the cattle market. He summarizes with, "USDA's semiannual cattle inventory report provided some key insights for cattle markets in 2024. The overall cattle inventory, along with the beef cattle inventory, is historically low, yet the supply of cattle on feed is quite large. The calf crop and beef heifers held for replacement are also historically low, which will hinder cattle inventory growth in 2024 and possibly 2025. This should provide opportunities for profitability in the cattle business in 2024, but with a smaller calf crop and fewer replace

ment heifers, declining production may also lead to record beef prices for consumers. Domestic consumer demand for beef has remained strong but with record prices on the horizon, consumers' ability, and willingness to withstand higher price levels in 2024 will be the determining factor."

Hopeful Reflections

In Arizona and across America, in agriculture, we've learned to do more with less for generations. These numbers show we must still do just that out in farm and ranch country. We certainly have confirmation of how efficient and productive we are with less water if you read this issue's "Conversation" article on page one of the publication.

To emphasize the main point of UArizona's George Frisvold's study, "In the Lower Basin that includes Arizona, farmers used 1.2 acre-feet on average to produce \$1,000 of crops. In the Upper Basin, farmers used more than 7.6 acre-feet. Within the Lower Basin, the water footprint is even lower in the Southwestern half of Arizona. We also looked at gross farm income net of crop-specific costs. Four counties, Imperial and Riverside in California and Yuma and Maricopa in Arizona, accounted for 75% of regional net crop revenues while consuming less than half of the Basin's irrigation water. If you also include Pinal, La Paz, Graham, and Cochise counties in Arizona, these eight counties accounted for 90% of crop net returns and two-thirds of irrigation water consumed."

In all of this, we haven't even addressed the inflation numbers in this article. Inflation on the farm is worth noting since every input cost has risen on average in the double digits. On the consumer side, overall prices have surged by on average 18% since January 2021. At every turn, Americans are paying with dollars that have less value than they did in 2020.

What is our "hopeful discussion?" Our discussions on the ditch bank, in county Farm Bureau meetings, at water meetings, and in testimony before legislative committees reflect and represent an industry known for how productive Arizona is as an agricultural state. Those discussions happen naturally even from non-agriculture voices when they show the charts, the history and the evidence of what Arizona agriculture has done for

Today's numbers are tough. So, you'll find farmers and ranchers reassessing their budgets, possibly diversifying their crop and livestock portfolios even more, and recalibrating. For all of us, we must celebrate our farms, ranches, and dairies. And don't forget, we need to push for and then cheer on the passing of a farm bill this year.



Happy Birthday, June Morrison!

Farm Bureau member June Morrison celebrated her 100th birthday last month! She has a special place in all our hearts for countless reasons including being such a dynamic influence in so many lives including her three sons, grandchildren, and those beyond the Morrison family clan.

Lifelong Farm Bureau member, her husband, Marvin Morrison served as Arizona Farm Bureau president from 1958

Her passion for life, family, farming and more daily inspires so many. If you want to read an interesting story about the Morrison farm family go to azfb.org and search for "Meet Arizona Agriculture's Morrison family." We celebrate this special birthday with June and this legacy farm family!

June Morrison celebrated 100 years last month with family and friends. Her farm and family legacy are rich in love and encouragement. Sons Howard, Richard and Scott are pictured in the background.

THE DYNAMIC AND DELIBERATIVE NATURE OF AN ARIZONA BILL TO LAW

By Daniel Harris, Arizona Farm Bureau Government Relations Manager

ost remember the lonely Bill sitting on the steps of Capitol Hill, desperately waiting for a chance to become a law, only to have his hopes dashed initially, but then receiving another chance at his ideal eventuality and ultimately becoming law at the end of the educational jingle.

The point of the story of course is to describe the process of a bill becoming a law at the national level, but it also illustrates an important fact that bills can be "killed" at any phase of the journey.

The same is true also at the state level, where bills that have not yet been heard in committee are nearing their ultimate, (but not necessarily final) demise. Nearing the period known in Arizona as "Crossover Week" all prospective pieces of legislation in the chamber they originated in, before proverbially "crossing over" to the other chamber, and beginning the process all over again, before either failing in the process, or being sent to the Governor's desk for a signature of approval, or veto.

While this process may seem complex, it is not entirely void of reason. Here's why, this session alone, over 1,700 bills have been introduced, and with the relatively small number of legislators we have in our state, to give the time necessary to thoroughly consider each piece of legislation, they prioritize bills based on any number of factors. The biggest of all usually budgetary negotiations, which this year plays an extra important role as some lawmakers believe the Governor will not sign a budget until later in the legislative session to encourage lawmakers to get done in a timely fashion. In sum, the legislature is moving at its normal pace, and we look forward to keeping track of our priority bills as they move through the process, and helping wherever we can. In the meantime, here's a quick refresher on how a bill becomes a law in Arizona.

The Legislative Odyssey: From Introduction to Governor's Desk

First Reading: The journey begins with the first reading, where a bill's reference title is announced in an open session. This step is crucial for a bill's survival; without a first reading, a bill is effectively dead. Following this, bills in the House are assigned to relevant committees by the Speaker.

Second Reading: The Senate President assigns Senate bills to committees during the second reading. A bill's progression can be hindered or facilitated at this stage, depending on the number of committee assign-

ments it receives.

Committee Hearing: A critical phase where a bill must secure approval from at least one committee, including the Rules Committee, to advance. These hearings provide a platform for detailed examination and public input, ensuring the bill's constitutionality and proper form.

Caucuses: Caucus meetings allow legislators to deliberate on bills, weighing their merits and drawbacks. While caucus decisions are influential, individual lawmakers retain the freedom to vote according to their convictions.

Third Reading: Post-committee approval, a bill may be placed on the "consent calendar" for a streamlined vote, bypassing full chamber debate. If a bill falters at this stage, it may be resurrected through a motion to reconsider.

Crossover Week: Successful bills then navigate to the opposite chamber, undergoing a similar scrutiny process. Amendments in this phase necessitate a return to the originating chamber for final consent.

Conference Committee: Disagreements over conflicting amendments from the different chambers may lead to a conference committee's intervention, tasked with forging a consensus on the bill's final form.

Final Vote and Governor's Decision: With both chambers' endorsement, the bill is presented to the Governor, who has the authority to sign it into law, veto it, or allow it to become law passively.

The Governor plays a pivotal role in the bill's final fate, with a defined window to act post-receipt. A veto can be overturned by a two-thirds majority in the Legislature, underscoring the importance of bipartisan support for contentious legislation.

As Arizona's legislative session unfolds, the intricate dance of bill progression continues to captivate observers. Each bill's journey is a testament to the dynamic and deliberate nature of the legislative process, ensuring that only the most vetted and viable legislation reaches the Governor's desk. This process, while complex, is foundational to the democratic ethos, embodying the principles of scrutiny, debate, and consensus essential for the governance of Arizona.

AG DAY IS EVERY DAY WITH AG IN THE CLASSROOM

National Ag Day, celebrated March 19th, is a day about recognizing and celebrating the contribution of agriculture in our everyday lives. A mission the Arizona Farm Bureau Ag in the Classroom (AZFB AITC) program works to accomplish every day through its educational programming!

In this, our 15th year of programming, we are more excited than ever to bring Ag into Arizona classrooms. "Our goal is to provide resources, materials, and opportunities that allow students to connect with their food and farmers", says Katie Aikins AZFB Director of Education.

VIRTUAL AG TOURS

AZFB AITC provides students of all ages an opportunity to learn and interact with Arizona farmers and ranchers through their Virtual Ag Tour Series. Classrooms can jump on live and ask questions or tune in after the tour to see everything we explored.

CURRICULUM KITS

This FREE resource allows teachers to bring Ag in their classroom even when AITC staff is not available for a visit. Curriculum Kits provide hands-on engaging lessons and "agtivities" as well as all the materials needed to teach the lessons. Topics include cotton, beef, dairy, plants, Arizona Five Cs, sheep, poultry, apples, pumpkins, equine, and AZ fruits and veggies.

CLASSROOM PRESENTATIONS

If it has to do with agriculture, we have a presentation on it. If we don't, we will! AZFB AITC provides FREE standards-based presentations to grades K-12 across the state. Our favorite days are those that we get to teach students about their food and fiber! Curious about what presentations we offer?

FIRST READER BOOKS

Students love to read, and we love to read about agriculture! So, we combined the two and offer several First Reader Books for early readers. The books are available for purchase or in a FREE digital copy.

AGMAGS

Agricultural Magazines, known as Ag-Mags, introduce students to a variety of agriculture commodities and concepts. These "old time newspaper" style resources bring a little fun to students as they learn new concepts. These FREE resources are available in both print and digital formats as well as in English and Spanish.

Editor's Note: For a complete list of activities go to www.azfbaitc.org



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