A CONVERSATION ABOUT THE GLOBAL COTTON SUPPLY CHAIN: PAUL BUSH

n 2018, Paul Bush was appointed President and CEO of Calcot Ltd., the Far West's oldest cotton marketing cooperative. He is only the 8th chief executive in the cooperative's 95-year history.

Bush has worked in the Arizona cotton industry since 1990 which included serving as an accounting manager for King Ranch's Arizona Agribusiness Operations and a gin manager for Chickasha Cotton Oil Company.

A horse enthusiast along with his wife, Nancy, Bush earned a bachelor's degree in agricultural economics from the U of A in 1989 and resides in the Phoenix area.

I've known Paul for decades and recall often interacting with him over the years on ag and cotton-related matters. One thing is certain, He and his board are focused on global markets and how to maximize markets on behalf of our western cotton growers.

Arizona Agriculture: The food and ag supply chain hiccups are daily evident especially when we see empty store shelves. But how have these supply chain hiccups been impacting the cotton industry?

Bush: The short answer to the question is that the impact has been disruptive, nerve-racking, and market-shaking. The pandemic started the disruptions with worldwide lockdowns, which closed or limited access to major ports and created large inventories. Industries liquidated these inventories to generate cash to survive during the pandemic due to lower demand for product. When the pandemic eased and people started buying again, often fueled by government stimulus packages, markets had to reset from supply-driven markets to demand-driven ones. During all this chaos, freight vendors were cutting capacity during the pandemic and then having to re-staff and add assets once goods started to flow again. This created a perfect storm in the logistics industry; demand for freight, whether it was for trucks, rail, or ships, simply exceeded the capacity that was available which in turn created higher shipping costs and the inability to move cargo in a timely basis.

If there was a bright side to all this in the cotton industry, it was that these disruptions were, and are, worldwide and no country was immune. Textile mills all over the world have been screaming for nearby delivery of product. It doesn't matter if it's coming from Australia, Brazil, or the United States; there simply isn't enough shipping capacity to get the product delivered on a timely basis. We've had customers cancel sales because they couldn't receive our cotton on a timely basis, but on the flip side, we've been able to take advantage of situations where our competitors were in the same situation, and we were able to make the sale. I've been involved in the cotton business for more than 30 years and have never seen anything like it.

freight and product has been so excessive that it created a disruption in the cotton market. We usually see what cooperatives and merchants call "carry" in the market, where nearby futures prices trade at a discount to more distant months. This allows traders to roll futures contract hedges at a gain when sales can't be made in the nearby month. Logistics issues have created the inverse of this, whereby the nearby contract is trading at a premium to the distant months. This indicates that buyers need and prefer to have the product now, versus sometime in the future. If you can't make a sale due to logistics concerns, you're forced to roll your nearby hedges at a loss to the next contract month. This issue has created some of the volatility we've seen in our market.

Lastly, the demand for

By Julie Murphree, Arizona Farm Bureau Outreach Director
Arizona Agriculture: How has Calcot mitigated the

Arizona Agriculture: How has Calcot mitigated the increased transportation costs, labor availability, rising energy costs, and other challenges?



Says President and CEO of Calcot Ltd., "I've seen our state overcome many challenges to agriculture because of the farmers, ranchers, and dairymen we have that have dedicated their service to its success."

Bush: I wish I could say that we were able to pass these costs on to our buyers, but unfortunately marketers of agricultural commodities are generally price-takers, not price makers. When we make a sale, we settle on a price that factors in assumptions for transportation costs. With cotton, most cooperatives and merchants price cotton landed at the port in the country where the end user is located. This is generally because we have our own logistics staff or network that is knowledgeable about international logistics and trade finance, whereas textile mills generally do not. So, as mentioned, we make these sales based on cost assumptions at the time, which are factored into the sale price. However, most sales are made with a forward date for shipment, typically within 30-90 days. If transportation costs are higher at the date of shipment than the amount that we factor into the sale, we must eat those additional costs.

The only way we've been able to mitigate these costs, to a lesser extent, has been to try to sell cotton to markets where transportation and logistics costs aren't as high. This has proven to be difficult, as there have been reasons why we haven't sold to these markets in the past, which usually involve additional credit or default risk or fewer international trade finance options. Also, many markets like Mexico and Central America, which have lower freight costs for us, have not been utilizing higher grade cottons that are produced in Arizona as typically these markets were for denim yarns. Things are starting to change on this front, however.

We're seeing a few Chinese firms taking interest in partnering or acquiring textile mills in Mexico because of the forced labor issue in Xinjiang Province, which has essentially stopped all imports of textile products from that region in western China from entering the United States. By having operations in Mexico, Chinese firms can source sustainable U.S. cotton cheaper as well as have unhindered access to the North American market. The Xinjiang issue is a game-changer, particularly for U.S. Pima cotton. We're seeing some new mill activity in Mexican states like Sonora and Sinaloa for the production of higher count yarns which could become a good market for Far-West cottons in the future. Historically Mexican textile production has been in central and eastern Mexico with preferences for Texas cottons.

Arizona Agriculture: Ron Rayner said: "Our cotton marketing cooperative, Calcot, has created innovative ways to get our cotton in containers and delivered to the port when a ship is available." Can you talk about this?

Bush: I know what Ron is talking about and I can't divulge much without getting into proprietary information. He's referring to things we've done to get cotton to a west coast port, be it Los Angeles or Long Beach, when we've been able to get chassied containers when other merchants and coops couldn't.

Part of this is due to the location of our warehouse assets in Glendale and Bakersfield, but much of it is also

due to the long-time freight vendor relationships Calcot has had with a few locally based trucking companies. It's no secret that some of the first loads handled by a couple of large trucking firms in Phoenix were Calcot loads going to Los Angeles.

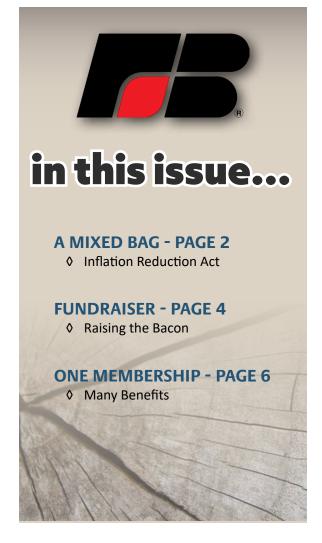
We also have a long-standing relationship with a Buckeye-based container carrier. These relationships have been like a marriage, with many ups and downs. But the key to these relationships, just like a marriage, is that we view these relationships as partners. Many merchants view trucking companies simply as vendors. We have a different philosophy than that and it has served us well in our 95-year history, particularly when a microburst in 2015 destroyed half of our warehouses in Glendale, and we were forced to ship almost our entire Arizona crop to Bakersfield directly from the gins here. Without our relationship with Knight Transportation, now the nation's largest dry-van carrier, we couldn't have accomplished that.

Arizona Agriculture: Do you have predictions when you see the supply chain smoothing out, if at all? And, why?

Bush: Quite frankly, I thought we'd have seen it by now. Unfortunately, the covid lockdowns that are still ongoing in China and other parts of the Pacific Rim have delayed things from getting back to normal. Also, with the upcoming holiday season right around the corner, demand for imports will still be at a premium which will put strains on capacity. Unfortunately, the only event that may return the logistics situation to a sense of normalcy may be an economic slowdown or, as many pundits are forecasting, a recession. If and when demand for freight starts to ease, we'll start to see some balance again in the freight markets. The trick will be how these markets respond once economic engines start roaring again.

Arizona Agriculture: The cost and availability of fertilizer alone have been extremely challenging to our cotton farmers. The primary feedstock and process fuel for ammonia production is natural gas. The recent doubling of the Henry Hub natural gas price dramatically increased the cost of production, the building block of all nitrogen fertilizers. What does this impact have on Calcot as a marketing cooperative?

See COTTON SUPPLY CHAIN Page 5



A MIXED BAG: INFLATION REDUCTION ACT SIGNED INTO LAW

By Chelsea Mcguire, Arizona Farm Bureau Government Relations Director

n August 16, President Joe Biden signed the Inflation Reduction Act (IRA) into law. The bill is largely comprised of climate-based initiatives including programs to reduce carbon emissions, invest in domestic energy production, and incentivize conservation. It calls for deficit reductions and also makes changes to healthcare programs, specifically by allowing Medicare to negotiate costs with pharmaceutical companies. To pay for that spending, the bill raises \$740 billion in additional revenue through tax increases and spending reductions.

WHAT'S IT IN FOR AGRICULTURE?

The bill spends almost \$40 billion on programs for agriculture, forestry, and rural development. Some of our most widely used Farm Bill programs would see a massive infusion of cash; it includes \$20 billion additional dollars for EQIP, RCPP, and CSP. It also includes \$14 million for rural development for biofuels infrastructure.

In light of the dire conditions on the Colorado River, the IRA also includes \$4 billion for drought mitigation projects in Reclamation states. These projects can include voluntary system conservation projects, voluntary compensated reduction in consumptive use or diversion, and ecosystem restoration projects to address drought-caused issues.

TAX IMPLICATIONS

On a positive note, several harmful tax provisions for farms and ranches were eliminated from the bill. Like-kind exchanges and stepped-up basis are still protected, a major change from the original "Build Back Better" bill on which this measure was based. A provision that would have increased the tax on carried interest in business partnerships was also eliminated from the final version of the bill.

Nevertheless, we have serious concerns about the impact the bill's spending and tax increases will have on farm and ranch businesses. The IRA includes a 15 percent minimum corporate tax and vastly increases funding for IRS enforcement, meaning the chances of a visit from an auditor near you just became much, much higher. The increased spending on conservation programs may also throw a wrench into Farm Bill negotiations, making it more difficult to advocate for modified spending in key conservation title programs because of the existing influx of funds.

A MIXED BAG

The downsides of the IRA's tax and spending provision shouldn't be downplayed. Business interests across the nation are bracing for not only higher tax bills and more onerous enforcement, but also the fact that the bill's spending doesn't seem likely to alleviate inflationary concerns any time soon – irrespective of the bill's name.

But we should also keep in mind that the IRA's infusion of resources for western states will add critical momentum as farmers look for ways to prevent a crash on the Colorado River. With the Bureau of Reclamation's August 16 declaration of a Tier 2a shortage, and the resulting cut of more than 1/5 of Arizona's Colorado River water allotment, it will be more important than ever for government entities to partner with farmers in ways that facilitate voluntary, compensated reductions in water use. While still wary about most of the IRA, we will nevertheless take advantage of every opportunity it creates for our members to utilize new resources for conservation and drought relief. We are extremely grateful to Arizona's Senators Sinema and Kelly for being willing to negotiate significant, needed resources for drought mitigation.

Do you know our next agent?

As the #1 ag insurer for 25 years, an ag background is an advantage for Farm Bureau agents. If you know someone looking for the freedom and flexibility to grow their own business, we want to hear from you. Your quality referral could earn you \$2,500!

Email AgentRecruiting@fbfs.com today!



Wo. 1 ag Insurer across our territory; 1996. 2021 SNL P&C Group - Farm Bureau Property & Casualty Insurance Company and Western Agricultural Insurance Company direct written premium. "Agent referral must become a contracted agent with the companies. Farm Bureau Property & Casualty Insurance Company," Western Agricultural Insurance Company, "Farm Bureau Life Insurance Company *West Des Moines, W. *Company providers of Farm Bureau Rinancial Services. M265 (5.22)



FOLLOW US ON FACEBOOK "FILL YOUR PLATE" & "FRIENDS OF ARIZONA FARM BUREAU".

AZFB LEADERS MEET WITH SENATOR SINEMA

ast month, farm and ranch leaders from across the state had the opportunity to meet with Senator Kyrsten Sinema to discuss their priorities for the 2023 Farm Bill. Our members shared the importance of the Farm Bill's funding for conservation programs, crop insurance, and other risk management tools. We also highlighted AZFB's bill that would improve and revitalize the depredation compensation program for the Mexican Gray Wolf, which we're working to include in the 2023 Farm Bill

A special thank you to Casey Dugan for hosting us at Desperado Dairy, and to AZFB President Stefanie Smallhouse, Will Rousseau, Bill Dunn, Paco Ollerton, and Ben Menges for sharing their stories about critical Farm Bill programs.



Arizona Farm Bureau Federation The Voice of Arizona Agriculture www.azfb.org

OFFICERS

President | Stefanie Smallhouse | Redington 1st Vice President | John Boelts | Yuma 2nd V.P. | Richie Kennedy | Casa Grande Executive Secretary | Philip Bashaw

EXECUTIVE COMMITTEE

Stephen Klump | Willcox Sharla Mortimer | Dewey-Humbolt

ARIZONA AGRICULTURE STAFF

Julie Murphree, Editor Joel Carr, Advertising Melissa Hogben, Design Layout

PLEASE SEND COMMENTS TO:

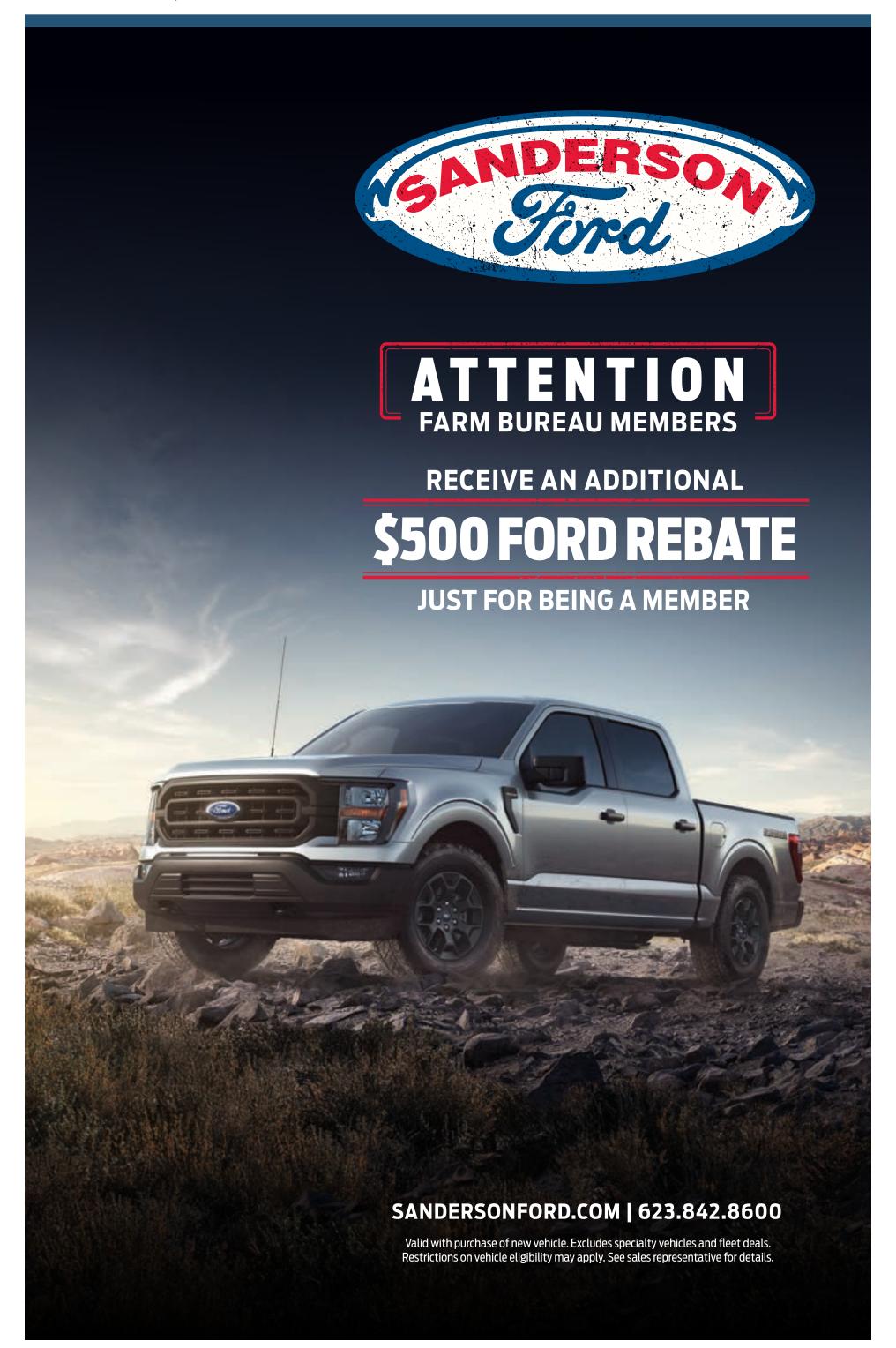
outreach@azfb.org
For advertising, e-mail ads@azfb.org,
call (480) 635-3609

ARIZONA AGRICULTURE is published 9 months, plus two special editions annually, (ISSN 0274-7014) by the Arizona Farm Bureau Federation.

Periodicals postage paid in Higley, Arizona and additional mailing offices.

POSTMASTER

Send address changes to:
Arizona Agriculture
325 S. Higley Rd., Ste. 210
Gilbert, Arizona 85296
Subscriptions are included in annual dues.



FUNDRAISER RAISES THE BACON FOR AG EDUCATION

By Katie Aikins, Arizona Farm Bureau Education Director

he 5th Annual Racin' for the Bacon Derby Dinner presented by the Arizona Pork Council is back in its original form to raise funds to support the Arizona Farm Bureau Educational Farming Company. Our Education Foundation works to support programs that educate youth and others about agriculture in the state of Arizona. Over 100,000 students and thousands of teachers received the FREE resources, programs, and materials provided through the Foundation's support this past year

With the average consumer being three to four generations removed from the farm and ranch, there is a major gap in consumers' food stories. Help us close that gap by attending this year's event. We want to be sure that the food story is coming from those that are producing it.

Join us at this year's Racin' for the Bacon Derby Dinner on Saturday, October 8th from 4:00-8:00 pm. We promise delicious Arizona Grown appetizers and desserts, dinner from the famous Farm Bureau Grill Team led by Bruce Cain, and Live and Silent Auctition. So, pull on your boots (or your most comfortable shoes) and your favorite hat and join us to support ag education in Arizona! Your attendance alone assures that we can teach nearly 3 Arizona classrooms about their food and fiber this year. Tickets can be purchased by calling Katie Booth at 480.635.3605 or online at www.azfb.org.



REGISTER BY OCTOBER 26[™]

5 WAYS TO REGISTER!

BY PHONE

Call Katie Booth at (480) 635-3605 BY FAX

Fax completed form to (480) 635-3781

BY E-MAIL

Scan document form to convention@azfb.org

BY MAIL

Include this form, send to: Arizona Farm Bureau 325 S. Higley Rd., Ste 210 Gilbert, AZ 85296-4770 ONLINE

Visit AZFB.ORG online

HOTEL RESERVATION **INFORMATION**

El Conquistador Tucson, A Hilton Resort

10000 North Oracle Road Tucson, AZ 85704

before OCTOBER 10, 2022

Please call (888) 370-0980 and mention

Group code: AFBN02

our rate \$179/night, plus tax.

Thank you to our Cultivating Sponsors!



Arizona Ford Dealers



Sord Sord







101ST ANNUAL CONVENTION **REGISTRATION FORM**

November 2 - 4, 2022 • El Conquistador Resort, Arizona

Stability Through the Storm

Registration Fee \$185 per person (pricing includes all meals) Do Not Delay - Registration Deadline October 26th - Register Today!

Farm Bureau members throughout Arizona will set policy, hear informational and political speakers, attend awards and recognition events and the Ag Expo Trade Show. Don't miss out on the opportunity to network with other members!

Name	Membership #
Address	
City, State and Zip Code _	
Phone #	E-Mail
Credit Card #	
Exp DateCVV	Signature
Attendee Name(s):	
LEASE INDICATE WHICH	MEALS YOU WILL BE ATTENDING!
- · · · ·	er - Wednesday Evening
	ursday Noon · · · · · *ppl
—	ner - Thursday Evening · · · · · · · · · #ppl
Ag Pac Breakfast - Friday E	Early AM · · · · · · #ppl
Include your Arizona Farm	•
☐ Maricopa and Yuma (County \$180.00

All other counties \$142.00

Registration Fee Per Person ••••••••\$185.00 x

COTTON SUPPLY CHAIN

continued from Page 1

Bush: Farms operate essentially as factories. In a nutshell, you add labor and a bunch of inputs to produce a product. As long as you sell your product for more than what you put into producing it, you make a profit.

Where farms start to differ from this model, farmers plant the seed and grow the crop without knowing what price they will receive at the end, or whether they will make a profit or not. Last year, we saw cotton prices rise in tandem with input costs. Currently, I'm hearing that current input costs at average yields equate to about \$1.00 per pound breakeven price for cotton growers in Arizona. Right now, with December cotton futures well over \$1 per pound, that's pretty good considering cotton farmers in Arizona also receive a good premium for their ginned seed, whether it be for cattle feed or purchased for saved seed by the major seed companies. At levels over \$1 with current seed prices, most growers can generate a profit. The problem we have as a cotton marketing cooperative is the profitability of competing crops. In Arizona, that's mostly alfalfa, which generates more profit than cotton and takes away from cotton-planted acreage.

Calcot now handles cotton grown in 7 states (CA/AZ/NM/TX/OK/KS/CO). In all these states, the main concern with our growers isn't input costs, which seem to have stabilized, but the lack of water. As a cooperative, we're very concerned about the impact the drought has and will continue to have on western, and now southwestern, agriculture. One of the reasons Calcot entered the Texas market was due to the fairly reliable production that Texas produced. It is a rare event in Texas where the whole state fails to make a crop. This year, we're seeing 50% acreage abandonment in south Texas, a region that typically gets over 20 inches of rain a year. On the high plains, the abandonment number will exceed 60%. The state will set a record this year on abandoned acreage.

Even irrigated acreage is suffering in Texas, as growers typically rely on irrigation as a supplement to rainfall which has been negligent this year. And as far as Arizona goes, no need to mention our concerns here. Arizona Farm Bureau has devoted considerable resources and press to the water issues facing Arizona agriculture, and I'm confident that Arizona Farm Bureau will make sure agriculture has a front seat at the table on any issues pertaining to water and agriculture. It's almost to the point where the only real solution seems to be to rely on the heavens above and pray for rain.

At least for the short term, water availability could see cotton acres stabilize or even increase in the Far West as cotton uses less water than forage crops, particularly alfalfa. In California, the implementation of the Sustainable Groundwater Management Act could force tree growers in several water districts to take out trees and switch back to row crops, of which Pima cotton will definitely be a consideration due to less water intake than corn or tomatoes. In the end, whether you're an irrigated producer in the Far West or a dryland producer in Texas, you're going to plant the crop that promises the best profit for your farm. Given the current supply and demand fundamentals for cotton, which support current prices, I believe it is a crop that will be in consideration to be planted for far Western growers at least for the next few years.

Arizona Agriculture: What message regarding these supply chain disruptions do you wish to convey to our Arizona cotton farmers?

Bush: Be patient and know that your marketer is doing everything possible to get your product sold and delivered. Our proximity to west coast ports gives us some advantage. Our main challenges are with ocean carriers who carry most of the Arizona cotton

crop to its final destination. Eventually the ship will right itself, pun intended.

Arizona Agriculture: What future plans does Calcot have to help its customers?

Bush: We must endeavor to be competitive, which means lowering our costs per bale, while still offering the same level of service our members and customers expect. We had to make large cuts to our budget this year due to lower expected volume due to the drought. Fortunately, we've taken advantage of a healthy real estate market and have divested our underutilized real estate assets which lowers our fixed costs. And we're always looking for additional volume. We're comfortable in the regions we currently serve but are exploring opportunities with other cotton cooperatives and merchants to both increase our volume and partner in areas where we can share costs.

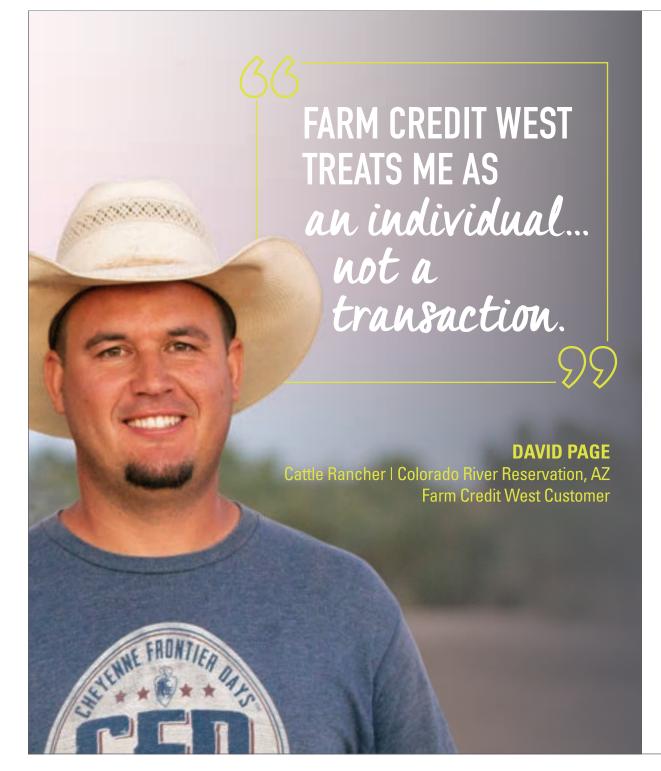
We're embarking on a long-term plan to automate some of the processes in our warehouses and have taken the first steps in doing that by adding wireless infrastructure in our warehouse buildings, which will be essential to implementing autonomous forklifts. The technology exists today to fully automate the bale handling of cotton in our warehouses. The only reason we haven't implemented it is because of the cost to do so. But that technology gets cheaper and better with each passing year. I foresee a time when our forklift fleet will be mostly automated.

As a final note, they say the ancient Chinese quote "May you live in interesting times" is both a blessing and a curse. I'm not sure which one we're living in today, but as an optimist, I know that good, smart people can work together to overcome any challenge. I've seen our state overcome many challenges to agriculture because of the farmers, ranchers, and dairymen we have that have dedicated their service to its success. I'm confident that success will continue in the future.

Take Fill Your Plate with You on the Road!

The mobile friendly fillyourplate.org helps you search for...

- Farmer & Rancher Family Recipes
- Farm Products
- Farmers Markets
- Farms to Visit



Who you are matters to us.

That's why most lending decisions are made at the branch level.

We take the time to get to know your business so you can get back to what matters most to you—running your operation.

800.909.5050 FarmCreditWest.com





Committed. Experienced. Trusted.

ONE MEMBERSHIP MANY BENEFITS

By Joel Carr, Arizona Farm Bureau Outreach Manager, Membership Value

id you know that 76% of associations don't offer benefits or affinity programs, (according to Member Press Blog. Arizona Farm Bureau is the remaining 24% that offer a robust set of member benefits for its 25,000 members.

Arizona Farm Bureau Members receive unique member benefits with discounts and special offers for entertainment, travel, food, and more, available online or via your smartphone.

Benefits for Agriculture Producers

The Arizona Farm Bureau offers excellent benefits that are specific for agriculture producers. AmeriGas, Truly Nolan, John Deer, Case IH, Caterpillar, Grainger, Ford Motor Company, and Vantage UAV offer special discounts to our ag membership.

Benefits for Ag and Association Members

The Arizona Farm Bureau offers many benefits that satisfy ag and non-ag members alike. These benefits include discounts at Knotts Berry Farm, Legoland, SeaWorld, The San Diego Zoo, Harkins Theaters, and

many other great local and regional businesses.

Arizona Farm Bureau members also receive discounts on rental vehicles from Avis Car Rental, Budget, Budget Truck Rental, Enterprise Rent-a-Car, Alamo Rent a Car, and National Car Rental.

Use your membership to also receive discounts on lodging at Choice Hotels, Motel 6, and Wyndham Hotels & Resorts.

You can view all our excellent benefits online at www.azfb.org/membership. The Member Benefits page is categorized by benefit type and lets you quickly see what's available.

Also, don't forget to download our mobile app, FB Benefits. It's available on both Apple and Android devices. The FB Benefits App also contains an electronic copy of your membership card, making it easy to show proof of membership.

If you have questions regarding you member benefits, contact Joel Carr at 480.635.3609.









THIRD AFBF SURVEY REVEALS STARK REALITY OF WESTERN DROUGHT

By Staff Reports

ersistent drought continues to hammer farmers and ranchers in Western, Central and Southern Plains states, with far-reaching implications for not only farmers' and ranchers' bottom lines, but also food availability and affordability. The third edition of AFBF's <u>Assessing Western Drought Conditions survey</u> illustrates many ground-level drought impacts.

The survey, which was also conducted in June 2021 and October 2021, included more than 600 responses from county and state Farm Bureau leaders, staff and members in 15 states including Arizona. Together, these states contribute nearly half of the U.S.'s agricultural production by value.

Nearly three out of four respondents rated a reduction in harvest yields as prevalent or higher, while two out of three respondents reported prevalence of selling off portions of herds or flocks.

"We have sold half our herd and may not be able to feed the remaining," said a Texas producer in the open-ended question portion of the survey. "The ones we sold only brought 60-70 percent of what we bought them for in 2021."

Across the surveyed region, respondents expected average crop yields to be down 38% this year because of drought conditions. One Arizona farmer commented, "Many of the fields near us are now fallow. Cropland is being converted to housing developments at an alarming rate. Over 10,000 new homes are expected within a 10-mile radius of my house—most within a 5-mile radius, all on cropland or former dairies. It is frustrating and alarming. Where will the food come from if we grow houses instead of food?"

AFBF President Zippy Duvall reacted, "The effects of this drought will be felt for years to come, not just by farmers and ranchers but also by consumers. Many farmers have had to make the devastating decision to sell off livestock they have spent years raising or destroy orchard trees that have grown for decades. Long-term solutions to drought mitigation must be discussed and implemented to ensure farmers in drought-prone regions can continue to provide safe, affordable and abundant food for their states and the rest of the country."

To check out the full survey results, go to American Farm Bureau's website at fb.org. \P

AMERICA'S CLEAN AIR: HOW ARIZONA AGRICULTURE DOES ITS PART TO KEEP IT THAT WAY

By Julie Murphree, Arizona Farm Bureau Outreach Director

merica became a world leader in clean air—a well-documented but little-known fact that shocks even some of the most influential policymakers. Over the last five decades, the United States has cut harmful airborne pollutants by 78%, according to the U.S. Environmental Protection Agency.

In fact, we're the only highly populated, developed country to meet the World Health Organization's standards for particulate matter. This bipartisan progress was made largely by free-market innovation, not by federal mandates.

And one other little-known fact, Arizona's farmers and ranchers help keep our air clean. I know, this truth might seem surprising. Here's how.

How Arizona Agriculture Works to Keep Our Air Clean

Agriculture has been a dedicated partner in ensuring clean air for decades, certainly here in Arizona where our air is so dry and more susceptible to dust particles. Our climate experts tell us that the challenges here in the southwest are exacerbated by the fact that our air is so dry. Humid air helps settle dust particles; dry air does just the opposite.

Farms help alleviate that problem by putting something in the ground to keep the dust where it's supposed to be. Over time, farms also improve soil quality itself by adding moisture and organic matter. Soil that's wet and healthy is less prone to blow off into the air.

Of course, Arizona's climate brings with it some challenges as well. Because we are so dry, and some areas of the state are so prone to dust, the Environmental Protection Agency and Arizona's own Department of Environmental Quality have stepped in to mandate best management practices that farms must employ to reduce PM10 emissions, one of the pollutants listed in EPA's chart seen nearby.

Two counties, Pinal and Maricopa are classified in "non-attainment." In other words, they struggle with meeting EPA's air quality standards. One other county, Yuma, has been in review. For the rest of the state, our efforts in managing our agricultural dust will help keep us clear of these "non-attainment" labels.

The process is straightforward: Per Arizona Administrative Code, an Agricultural Best Management Practice, or BMP, is a scientifically verified technique that is practical, economically feasible and effective in reducing PM10 emissions --- dust --- from regulated agricultural activity.

In 1981, the Ag Dust committee was formed to regularly assess best practices and offer additional solutions for farmers and ranchers to reduce dust and improve air quality. To this day, the committee regularly meets and assesses opportunities for the agriculture community to improve on its air quality management.

What are some of these air quality management practices?

For example, on Dairy farms, farmers will ...

- Avoid running cattle
- Pile Manure between cleanings
- Provide cooling in the corral
- Install water misting systems
- Provide Covers for silageCover manure hauling trucks

See AMERICA'S CLEAN AIR on page 7



ARIZONA FARMERS AND RANCHERS SPEAK OUT ON DROUGHT CONDITIONS

By Julie Murphree, Arizona Farm Bureau Outreach Director

The third edition of American Farm Bureau's Assessing Western Drought Conditions survey illustrates many ground-level drought impacts, including an expected reduction in yields, removing or destroying orchard trees or multi-year crops, and selling off portions of herds and flocks. Arizona farmers and ranchers participated in the survey and shared their concerns.

While anonymous, the Arizona farmer and rancher comments below illustrate how serious their issues are during our state's mega drought and even hint at what they're doing to mitigate their own farm and ranch challenges.

A Diversity of Comments from Arizona Farmers and Ranchers

- Commodity prices are elevated; reduced acres and increased inputs will reduce on-farm revenue by a minimum of 20%, if input prices like fertilizer and fuel continue to increase.
- Decreasing herd size due to no grasses growing on the range.
- Developments on the Colorado River will determine additional impacts to agriculture that relies on Colorado River water.
- The farming economy is under great stress, little hope for relief in the near future.
- I've had to reduce total crop acres and dramatically increase fallowed acres. I've
 also not been able to irriage alfalfa and grass crops during the summer due to
 reduced water allocations.
- In Pinal County our water deliveries from CAP were reduced by 50% this year and will be eliminated next year. While we have well water available we don't anticipate that supply to be long term.
- In the past a few areas were impacted, currently every area is impacted by drought. The pressures are significant across all commodities in the agriculture industry. Thus, the stresses are felt in all areas of agriculture.
- We're dealing with increased supplement feed cost, higher culling rate of cow herd, and decreased calf crop.
- Having traveled to Israel a few times, I have been so impressed with how they
 handle their desalination of sea water and its reuse as treated wastewater on
 the ag crops (efficiently watered and appropriately charged and value of crop
 produced is commensurate) this should be a practice we embrace.
- Reduced herd size which impacts cash flow in the short term. Without the USDA drought help I would have folded already.
- The drought is causing us to think about liquidating our herd.
- The water shortage will end up with more regulations on us that in the end will be used to control our operations.
- Trying to mitigate long term economic impacts to smaller markets that took generations to develope. Example specialty seed, specialty forage, specialty citrus and vegetable.
- We are being forced to delay implementation needed of improvements, and consideration of reducing staff numbers. Owners are putting more of savings and personal income into ranch operations to keep afloat.
- We've had wildfires from dry residual grass. A lot of pasture was burned to create a back burn in safer areas. We've changed our rotational grazing pattern and have to deal with the aftermath of the fire: damaged fencing, erosion on pastures, road erosion from firefighters' vehicles.



- We've cut our cow herd by almost 50% in order to retain some steers for beef sales. We are hauling water to range pastures; feeding supplemental hay and brewers mash to mother cows, on the range. Having to feed beef animals 100% as there is no feed growing due to drought. Fortunately, we do make our own hay, so we don't have to buy it, but all the associated costs have increased (diesel, seed, fertilizer, electricity).
- Yuma has senior water rights, but it appears that cutbacks are needed within the next year that may supersede those water rights.

The recent Tier 2a declaration by the Bureau of Reclamation in recent days only highlights the extent of our drought concerns. Arizona Farm Bureau is front and center on this issue and will continue to keep you posted.

AMERICA'S CLEAN AIR

continued from Page 6

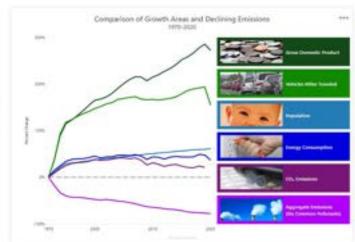
- Feed higher moisture feeds to dairy cattle
- Apply and maintain pavement in high-traffic areas
- Apply and maintain water as a dust suppressant
- Install signage to limit vehicle speed to 15 mph
- Restrict access to through traffic
- Plus, much more

The Arizona Department of Environmental Quality provides these best management practice strategies to not only dairy farmers but also to cattle feedlots, swine operations, and crop operations in parts of Pinal and Maricopa counties.

Each independent operation chooses to implement, at a minimum, 10 to 12 of the practices outlined for reducing dust on the farm. Big on farmers' list is to avoid working fields on high wind days and stop or move to a different part of the farm to prevent creating more dust.

Each farm or ranch will adapt recommending dust management practices based on what works best on their operation and what conditions must become a priority.







NATIONAL BANK OF ARIZONA®

With over 75 combined years of experience, Matt Eyrich, Carrie Morales, Cody Stephan and Candilee Struble bring a wealth of knowledge to their roles as Agribusiness Relationship Managers.

The entire team comes from farming families or has hands-on experience in the agriculture industry. The team understands the complexity of farming/ranching operations and the diverse financial needs of farmers across the Southwest.



MATT EYRICH 623.302.8714 Matthew.Eyrich@nbarizona.com



CARRIE MORALES 480.797.8406 Carrie.Morales@nbarizona.com



CODY STEPHAN 928.373.6941 Cody.Stephan@nbarizona.com



CANDILEE STRUBLE 480.644.8563 Candilee.Struble@nbarizona.com

NBAZ.COM | A division of Zions Bancorporation, N.A. Member FDIC

Equal Housing Lender NMLS #467014

WILDFIRES: FAILURE TO PLAN IS PLANNING TO FAIL OVER AND OVER AGAIN

By Stefanie Smallhouse, Arizona Farm Bureau President



arly in the 20th century, we began the ongoing cycle of pivoting our priorities and reassessing our methodologies in fire response and forest management. The Great Fire of 1910, which burned 3 million acres of forestland in Idaho and Montana over the course of just two days,

set in motion the U.S. Forest Service's full suppression response to all wildfires. This lasted until the 1990s when Forest Service Chief Jack Ward Thomas determined that some fires would be better left to burn. "Fire is neither good nor bad," Thomas said. "It just is." Concurrently, the concept of prescribed burning established itself in portions of the U.S. in the 1940s, while the passing of the Endangered Species Act and the Clean Air Act in the 1970s complicated forest management.

Finally, in 2002, to counter those regulatory complications in fire policy, the Healthy Forests Initiative was passed with the intention to reduce the risks of catastrophic wildfires through streamlined regulatory processes for hazardous fuel reductions. So where do we find ourselves today?

OUR CURRENT CRISIS

According to the Journal for the National Academy of the Sciences article, "The Changing Risk and Burden of Wildfire in the United States," in the past four decades wildfire burned acres have quadrupled in the U.S., driven largely by the accumulation of fuels combined with the increase in fuel aridity. At the same time, prescribed burned acres have remained largely flat in the western U.S., according to the authors in the article just mentioned. In response, the U.S. Forest Service has launched a 10-year strategy to address this wildfire crisis with a historic investment of congressional funding that will dramatically increase the scale of forest health treatments over the next decade. This is encouraging news, but funding alone will not address the current cri-

In tracking the largest fires in the Southwest from 2013 to 2020, the Southwest Fire Consortium reports that on average, only about 53% of fire response was full suppression, with all other activity being "managed" fire response or some other strategy. This begs the question, why during a time of "wildfire crisis" and mega-drought is fire response anything less than 100% full suppression? It appears the need to reverse decades of over-growth in our forests, combined with the slow-moving bureaucracy of fire planning, the painful process of obtaining environmental clearances, and lack of program funding have placed increased pressure on agency Iministrators to manage these wild fires for the natural resource benefits they otherwise would have achieved through planned fuel treatments. During fire season the funding spigot is never turned off, fire personnel and resources are more available, and stakeholder collaboration is bypassed. This creates an illusion of efficiency and ease of decision-making.

The findings of a recent Mixed Method Review paper by Ph.D. candidate, Stephen Fillmore out of the University of Idaho, reveal that there are at least 110 factors involved in the decision framework of whether a fire should be managed for resource benefit or fully suppressed. These include multiple decision points within each of the following categories: Institutional Influences, Operational Considerations, Fire Outcomes, Fire Environment, Perceived Risk, and Sociopolitical Context. It cannot be easy for an agency administrator of the incident command system, likely imported from another state, to make

such complex decisions in tense moments of fire behavior. There are numerous unintended consequences to all forest users and rural communities with this philosophy.

When the objective of natural resource "benefit" dictates the response strategy for a wildfire burning in the hot, windy days of June, it seems reasonable to question this logic. Since 2017, I have received multiple complaints from ranchers across the state with questions about this managed wildfire strategy. This is certainly not because ranchers don't recognize the importance of fire on the landscape. Prescribed fire is an invaluable tool that brings together stakeholders and allows for building community support, while incorporating the use of pre-fire resource tools, maximizing fire behavior control, and planning for rehabilitation measures post-fire. The concern stems from the total lack of planning for a tool that can be very risky and expensive to use in the moment. Managed fire often involves setting back burns far from the actual fire line and in exceedance of what would normally be necessary. Given that these decisions are made in real-time, there is generally insufficient communication with the land manager, and this has endangered cattle, destroyed infrastructure, created long-term soil health damage, and threatened access to planned grazing areas. Any damages incurred as a result are expensive and funding can be difficult to obtain.

It's evident through the data and the economic losses to forest users and rural communities, that we need to hit



the pause button on the use of "managed fire" to achieve natural resource benefits, as it is not the answer to the current wildfire or forest health crisis. The next pivot in priorities and reassessing our methodologies in fire response and forest management not only requires historic funding, but a collective effort by all stakeholders to ease the planning hurdles for prescribed fire, timber harvest, and livestock grazing as tools to manage fuel loads on our forests.

Editor's Note: Policy development this season from our county leadership is helping address this issue. Farm Bureau leaders, see you all in November.



Life insurance is cheaper than you think.

WHY WAIT?

For less than \$1 a day¹, you can make sure your family will have money to pay for things like a mortgage, tuition, and everyday expenses. Don't wait until it's too late.

Contact your Farm Bureau agent today.



It's your future. Let's protect it."

Auto | Home | Life | Business | Farm & Ranch | Crop | Financial Planning

'Individual eligibility for all product promotions is subject to underwriting review and approval. Estimated premium payment is for 20-year Income Guard Term Life Plan; Standard; 30-year-old male or female; non-smoker. Amount is for demonstrative purposes only. Contact your Farm Bureau agent for a quote on your actual monthly premium payment. Securities & services offered through FBL Marketing Services, LLC, + 5400 University Ave., West Des Moines, IA 50266, 877.860.2904, Member SIPC. Advisory services offered through FBL Wealth Management, LLC. + Farm Bureau Property & Casualty Insurance Company, +* Western Agricultural Insurance Company, +* Farm Bureau Life Insurance Company +*/West Des Moines, IA. + Affiliates. *Company providers of Farm Bureau Financial Services. L1205-ML (8-22)