A Conversation with a Foodie about High-Flavor Food Profiles: Patty Emmert

By Julie Murphree, Arizona Farm Bureau Outreach Director

Patty Emmert is the Community Relations and Marketing Manager for Duncan Family Farms, a certified organic farm specializing in leafy greens and specialty vegetables. Since joining the farm in 2010, Patty has worked to help the company expand its Specialty Vegetable

has worked to help the company expand its Specialty Vegetable crops by fostering new business relationships, including wholesale and retail accounts, and growing sales.

Patty also oversees marketing and community outreach for the farm. Her successful outreach projects include the creation and management of the Wigwam Farmers Market, a health and wellness initiative called Salad a Day the Duncan Way and various volunteer initiatives.

But Patty's interest in food and farming goes beyond the farm fields she's often checking out at Duncan Family Farms. Patty is the current Director for Slow Food Phoenix, the local chapter of a global non-profit organization focused on good, clean and fair food. She was a U.S. Delegate to Terra Madre in Turin, Italy and is an active member of Blue Watermelon Project, which focuses on taste education and healthy food in schools. She is the Production Chair for the Arizona Farm to School Network, FAPAC member and a MARCO member. Her dedication is deeply rooted in building vibrant local food supply systems and making sure that everyone has access to healthy, fresh food.

Because Patty can talk about all sorts of insights when in comes to food, such as flavor profiles and more, I thought it was time to make her the center of one of our conversation articles.

Arizona Agriculture: Tell us the origin and history of Duncan Family Farms? Emmert: Our roots run deep in the farming industry. Arnott Duncan is a 4th generation Arizona farmer who left his family's farm in 1985 and began cultivating a few hundred acres of conventionally-grown row crops. In 1992, Arnott along with his wife Kathleen, decided they wanted to reach out to the community to bridge the gap between urban and rural life. They began offering educational tours for school groups and establishing a small, seasonal produce stand at their farm site.

During its first year alone 18,000 students visited the farm. In the second year, the

number swelled to 30,000. During its 11-year run, Duncan Family Farms® became an extremely popular recreational and educational destination. In fact, the farm was one

of the fastest growing 'agricultural-tourism' sites in the country for many years. Then in 2001 a change in flight activity at the nearby Luke Air Force Base created a situation where the agricultural-tourism program had to cease. Despite this Duncan Family Farms® has remained committed to be a good neighbor and an integral part of the community.

Arizona Agriculture: From agritourism to one of the largest family-owned. USDA-Organic certified Farms: Explain the evolution.

Emmert: By 1994 our farm had expanded into organic production, growing organic baby leaf items including several different varieties of lettuce and greens. These greens are delivered to some of the largest value-added processors in North America, Canada and the United Kingdom who provide bagged salads to the retail and food service industries. As our business has evolved, we have tried to blend the best of traditional farming with the latest in agricultural technology. Duncan Family Farms® has won numerous awards and is nationally recognized as a showcase of progressive and environmentally-sensitive farming techniques, due to our innovative programs.

Up until 2010 we were a seasonal grower in Goodyear, AZ. We purchased additional ground in California to expand seasonal operations and to provide our customers with a year-round supply of produce. We also added a Specialty Crop pro-

gram that included organic Kales, Chards, Beets, Romaine Hearts and Herbs. The additional ground in California allows us to grow our products in the summertime while maintaining our agronomic practices of resting the ground and rebuilding the soil in the off-season. Additional ground also provides geographic diversity, which allows us to expand our portfolio of produce.

Today our multi-regional operations are in Central Arizona and the Imperial Valley, Central Coast and its inland valleys in California, Southern Oregon and Upstate

See FOODIE Page 2



Patty Emmert's interest in food and farming goes beyond the farm fields she's often checking out at Duncan Family Farms. Ask her about flavor profiles and she has lots to say.

Pinal County Groundwater Model: Cause for Fear, or Inspiration to Action?

By Chelsea McGuire, Arizona Farm Bureau Government Relations Director

This fall, the House of Representatives formed an ad hoc committee on Pinal County groundwater supplies. The committee, Chaired by District 8 Representative David Cook (R-Globe), will "(1) Review, discuss and take testimony regarding the supply of available groundwater and renewable water supplies in the Pinal County Active Management Area; and (2) Review and make recommendations on the modeling

criteria of available groundwater supplies in the Pinal Active Management Area."

At the committee's much anticipated meeting in October the Arizona De-

At the committee's much anticipated meeting in October, the Arizona Department of Water Resources released its latest groundwater model for the Pinal



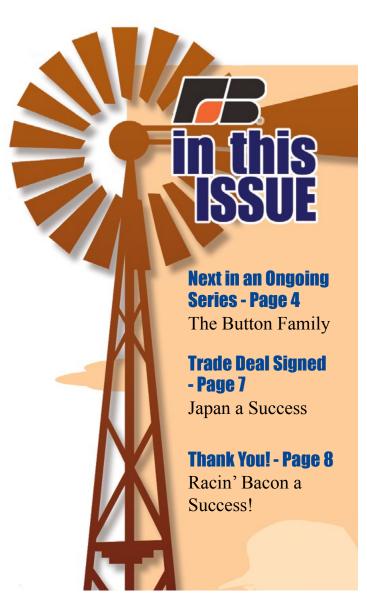
The Arizona Department of Water Resources released its latest groundwater model for the Pinal Active Management Area last month. Quickly reported by local and state-wide media, this model showed dire predictions for central Arizona's groundwater supply with demand outpacing supply by about 10%. (Photo by Jonathan Dinsmore)

Active Management Area. Quickly reported by local and state-wide media, this model showed dire predictions for central Arizona's groundwater supply: demand outpacing supply by about 10 percent, resulting in a deficit of greater than 8 million feet.

What does that mean, exactly?

To understand what this model was trying to show, we also must understand why the number is necessary. One of the main tenants of Arizona's Groundwater Management Act was the concept of an Assured Water Supply

See GROUNDWATER Page 5



Foodie continued from page 1

New York. The geographic diversity of these organically-certified growing locations allows us to grow and ship product into local and regional markets seasonally while providing opportunities to diversify our product portfolio with items that may not grow well in in Arizona.

Arizona Agriculture: Your composting effort on the farm greatly enhances your soil health strategies. Please explain the process?

Emmert: At Duncan Family Farms®, we are turning unwanted tree trimmings, grass clippings, wood chips, and farm animal manure into life-giving, nutrient rich compost. In fact, we operate one of the largest privately-run composting programs in the Southwest on our farm. Through this comprehensive composting program, we can take large quantities of waste from local dairies, horse farms, and other sources and turn it into natural fertilizer. Once on our farm, this 'waste' that might otherwise become a nuisance to nearby residents is quickly broken down and used to create healthier soil in which to grow our crops. Our farm also receives truck-loads of tree trimmings, grass clippings and wood chips from local municipalities. We can take this waste that would otherwise end up in the local landfill and recycle it in several ways. The tree trimmings and grass clippings are added to our compost piles and help create a natural fertilizer. The wood chips are spread on roadways and in our farm yard, which helps to reduce dust and improve the overall appearance of our farm.

Arizona Agriculture: Too me, good farmers are simply gifted. But what's given this Arizona farm family such a knack for getting it right?

Emmert: We approach farming as a blend of science and art. And by art, I mean that attention to detail that allows you to really try and understand the nuances of nature. In addition, it is the constant pursuit of learning and always striving to improve.

It is always doing the right thing and not taking short cuts. Then you sprinkle large doses of passion and you have a great recipe to weather the challenges and find solutions that propel you forward. Arnott Duncan is extremely passionate about farming and he is very humble. You ask him what makes Duncan Family Farms so successful and he will tell without hesitation it is because of his team. We are fortunate in that we have a great team, and everyone has this unbridled enthusiasm and passion for what they do and those of us in farming know how hard it is day in and day out to grow and produce food. So, passion is the fuel that keeps you going.

Arizona Agriculture: Explain some of the food safety strategies along your farming supply chain.

Emmert: Food Safety and Farm Worker Safety are the two most important values that drive every one of our decisions on the farm. Our farm has created a program that incorporates the requirements set forth by the United States Department of Agriculture (USDA), Leafy Greens Marketing Agreement (LGMA) and customer specific procedures and protocols.

Our Technical Services Department oversees our food safety audits, certifications and daily practices. We have teams at each of our locations that perform the following duties:

- Continuous employee training of GAPs
- Internal audits of our ranches and harvest crews
- Participation of 3rd party Audits by USDA, LGMA and Primus Labs.
- Testing and monitoring of water sources
- Testing and monitoring of composted materials and soil amendments
- Preseason and pre-harvest inspections in order to monitor environmental conditions
- Raw product testing of pathogens
- Standard Operating Procedures and Standard Sanitation Operating Procedures

Duncan Family Farms' mission statement very specifically calls out that it is our job to produce healthy, life-giving food and this is embedded in our culture with every single employee regardless if you are working in production or in the office.

Arizona Agriculture: What excites you about our food chain today?

Emmert: What excites me the most about our food chain today is the disruption and change we are going through in how food is produced and distributed. Much of this disruption is brought on by challenges that we are experiencing due to increased populations, labor shortages and climate change, just to name a few.

But this is when we see high levels of innovation occur and there are many solutions being explored and proving to be successful models. In addition, we as consumers are becoming more educated on how our food is produced and demanding more transparency within our supply chains.

With continued challenges in front of us to feed a growing population I am optimistic that we are finding new and better ways to take care of people and our planet. We must have continued focus on how to protect the resources of our planet and ensure that all people have access to healthy food.

Arizona Agriculture: You once mentioned that consumers want unique items with a high flavor profile. What do you mean by that?

Emmert: During the 20th and 21st Century food consumption patterns shifted away from eating with the seasons. We wanted everything all the time and we did not care about how good it tasted. Food production models became focused on breeding and growing food for uniformity, appearance and shelf life and in the process, we bred the flavor out of food. As consumers we became accustomed to being able to buy produce year-round and we lost eating with the cadence of the seasons.

As Dan Barber says, "The recipe of American cuisine is not great ingredients in large abundance. When you are chasing after the best flavor, you are chasing after the best ingredients, you are in search of great farming. Agribusiness is looking for crops that can travel long distances and last a long time in your refrigerator, they are not looking for flavor. The real disaster is that in all of this we lose the taste and health benefits of foods."

Now, the consumer is demanding flavor and seeking the health benefits in food and farmers are responding by new varieties with high flavor profiles.

Arizona Agriculture: If you had a crystal ball, what would you say you see with the future of our farmers and ranchers and the consumer relationship?

Emmert: We now have a generation of young people that view eating as an ethical act in a way that no previous generation ever has. That plate of food is the connection to farming, nutrition and the environment. I believe we have a future that with continued understanding and education about the challenges our producers face in growing food the consumer will understand the "true cost" of that food and begin to support producers by paying a fair price. At the end of the day it is our farmers and ranchers that tend the land and feed us so we must ensure that their work is sustainable; in earning a living and in tending the land.

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

With offices across the state, we can help protect your family, home, car, farm/ranch and business.

Contact your local agent today.

BUCKEYE ₹ 311 N. Miller Rd. 623.935.6209

BULLHEAD CITY 2071 Hwy. 95, Ste. A 928.763.8464

CASA GRANDE 408 N. Sacaton, Ste. E 520.836.2511

CAVE CREEK ₹

6554 E. Cave Creek, Rd#4 480.575.0710 CHANDLER

1820 E. Ray Rd. Ste. A205 480.284.4223 or 480.899.1997 CLIFTON

214 N Coronado Blvd 928.865.3276 COTTONWOOD 1759 E. Villa Drive, #113 928.649.8686

DEWEY

815 S. Dunivin Ln.
928.632.0014

FLAGSTAFF ₹ 2733 E Lakin Dr. #1 928.527.1343

4650 US Highway 89, Ste. A008 928-526-7022

GILBERT = 325 S.Higley Rd. #100 480.635.3860 343 N. Gilbert Rd.

480.699.0861 1605 S. Gilbert Rd # 103

480.833.8718

480.704.4182 1166 E. Warner Rd., Ste. 204. Gilbert, AZ 85296

480 993 2742

480.339.7148 **GLOBE** #5
138 S. Broad St.
928.425.3632

GOODYEAR 3673 S. Bullard Ave., Ste. 101 623.925.0190

KINGMAN 550 2510 Stockton Hill Rd., Ste. B 928.377.5000

1600 McCulloch Blvd. N., Ste. 5B 928.846.3232 MESA

1012 S. Stapley Dr., #114 480.649.0260

2509 S. Power Rd., Ste #106 480.279.1874

2919 Ellsworth Rd, Ste 129 480.626.8045 MIAMI ₹ 520 W. Live Oak St. 928.473.1234

ORO VALLEY 570 10355 N. La Canada Dr. #197 520.219.3600

PARKER ₹ 1212 S. Kofa Ave. 928.669.2437

PAYSON 55 512 S. Beeline Hwy. #4 928.474.1775

PEORIA 50 9051 W Kelton Ln, Ste 6 623.979.3842 602.997.6633 623.878.2491

PHOENIX 22601 N. 19th Ave. #106 623.434.8097

PRESCOTT = 3005 N. Hwy. 89 928.778.9350

136 Grove Ave. 928.440.6999

PRESCOTT VALLEY 8008 Yavapai Rd Ste. B. 928.458.5880

QUEEN CREEK 18933 E. San Tan Blvd. #107 480.987.9163

SAFFORD 620 S. 1st Ave. 928.428.4618

SCOTTSDALE 7650 E. Redfield Rd. Ste. D-4 480.483.8787

7702 E. Doubletree Rd. Ste. 300 480-348-3900

SHOWLOW

810 E. Deuce of Clubs
928.537.2990

TEMPE

□

6101 S. Rural Rd. #120 480.967.7306

WICKENBURG 300 N. Tegner St. 928.684.6895

WILLCOX 365 N. Haskell Ave. 520.766.3276

WILLIAMS 128 W. Grant, Ste. 74 928.635.2181

YUMA 661 E. 32nd St., Ste. A 928.782.0012

7175 E. 31st Pl., Ste. B & J 928.248.5038 928.341.0000

> 1195 W. 5th Ave 928.257.3594

=-0



Office with AgWise Certified agents

www.fbfs.com

Western Agricultural Insurance Company*, Farm Bureau Property & Casualty Insurance Company* and Farm Bureau Life Insurance Company*/ West Des Moines, IA. *Company providers of Farm Bureau Financial Services

Arizona Farm Bureau Federation

The Voice of Arizona Agriculture

325 S. Higley Rd., Suite 210 • Gilbert, AZ 85296 • 480.635.3600 • fax 480.635.3781 • www.azfb.org

OFFICERS

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

John Hart • Willcox
Ava Alcaida • Parker

ARIZONA AGRICULTURE STAFF
Julie Murphree, Editor

Taylor Rogers, Advertising
Please send comments to:
arizonaagriculture@azfb.org

For advertising, e-mail <u>ads@azfb.org</u>, call 480.635.3609 or visit <u>www.azfb.org/publications.htm</u> Arizona Agriculture
is published 9 months, plus two special

editions annually, (ISSN 0274-7014) by the Arizona Farm Bureau Federation... 325 S Higley Rd., Suite 210

Gilbert, AZ 85296
Periodicals postage paid in Higley,
Arizona and additional mailing offices.

POSTMASTER

Send address changes to:

Arizona Agriculture
325 S Higley Rd., Suite 210
Gilbert, AZ 85296

Subscriptions are included in annual dues.









ERAIIO



RIGHT DOWN SANDERSON LANE

DONATE NOVEMBER 14TH - DECEMBER 18TH FROM SANDERSON

GIVETOTHECLAUS.COM













Meet Arizona Agriculture's Button Family

An ongoing series profiling Arizona's agriculture families.

By Julie Murphree, Arizona Farm Bureau Outreach Director and Arizona Farm and Ranch Hall of Fame Executive Director Carole Decosmo and Historian Nancy Brandt

early one weekend a month I head out on state route 87, kind of a back way to get to Dad, Pat Murphree's, place in order to skip a portion of the traffic on Interstate 10 before getting to Casa Grande and then Arizona City. All these years I've been passing one of the most unique and interesting farming operations: Ramona Farms.

Ramona Farms, established in the early 1970s, represents the convergence of modern and traditional farming. As you turn left off 87 between mileposts 153 & 152, you're a bit mystified about what might be going on here. Processing equipment and a non-descript farm office begin to give subtle hints. The "Welcome" sign tells you to come on in.

On the Ramona Farms' website, Ramona Button is quoted saying, "My father, Francisco 'Chiigo' Smith, an O'dham farmer, grew many traditional crops on my mother Margaret's ten-acre allotment located near Sacaton, on the Gila River Indian Reservation in Arizona. My mother was an herbalist and traditional healer. My father grew corn, chilis, tepary beans, various types of squash, gourds, Pima wheat, melons, and sugar cane. Together, they taught me the value of our traditional



Ramona and Terry Button met in South Dakota. Ramona was from Arizona and Terry was an East Coast boy.

foods to our daily nutrition and way of life."

You get a sense she holds her family heritage and her culture close. And when I visited with her recently, she told me of the time her dad placed her on a large boulder and told her to close her eyes. He proceeded to teach her how to sense her surroundings, listen to the sounds and try to identify what insects and small animals might be chirping. Her appreciation for the land and nature is grounded, certainly.

Ramona and her husband, Terry, began farming on that very same allotment of her mother's in 1974. "Our first crops were barley and alfalfa," Ramona explains. "After expanding a few years later, by leasing land from my relatives and other community members, we added cotton, corn, and wheat."

Members of the Arizona Farm Bureau for decades, the Buttons were called to even more by her elders when it came to the farm. "In the late 1970s, some community elders asked us to grow the Bafv (tepary bean), which had nearly become extinct due to the lack of water that put many of the local subsistence farmers out of business," Ramona explain on the website. "We discovered that my father had left a few seeds of the white and brown tepary beans in glass jars in a trunk in the old adobe house that I grew up in. It became clear to us, especially with the urging of our community elders, that it was to become our mission to 'bring the bafv back' to the community. We were able to get started with those few seeds of each color and learned how to produce the beans on a small scale. Once we perfected our production techniques, we were able to develop our bean project into a larger enterprise and now market our beans in the local community and surrounding areas, in different colors and package sizes."

So, this couple that's launched a thousand seeds, well thousands of seed, can mostly take pride in rescuing the Pima peoples' native seed.

Growing up years: Born in Sacaton to Francisco 'Chiigo' Smith, a Tohono O'odham and Margaret (Johnson) Smith, an Akimel O'odham (Pima), Ramona learned to grow traditional crops from her father, but her mother taught her the traditional ways of healing using traditional methods and desert medicinal plants, something that Ramona was keen to embrace.

A farmer, farm laborer, and blacksmith, Chiigo also made adobe bricks and helped build homes and delivered water to residences by team and wagon. Ramona's mom, the herbalist, learned how to use plants to heal from her own parents. And despite being nearly blind, Margaret was a good cook and homemaker.

Being the farmer, Chiigo taught his daughter the importance of gathering and saving seeds. And ever busy, he was continuously working with the soil, studying and experimenting on how to improve his five garden plots, often improving soil fertility by using cow and chicken manure from the animals he raised for milk, eggs, and meat.

On Margaret's ten-acre field and the sixteen acres he crop-share leased from Margaret's Uncle Frank Johnson and his wife, Isabell, Chiigo also grew tepary beans, wheat and barley for his horses that pulled the plow and the wagonloads of White Sonoran and Pima Club wheat to the Pima Pride Flour mill, just three quarters of a mile west of their fields on the "Little Gila" on the Casa Blanca Canal.

Along with the ten-acre field, in which he grew barley for the horses that he used to pull his wagon and plow the fields and wheat for sale and to make flour for their biscuits and chemait (tortilla), he leased another two allotments totaling sixteen acres from Margaret's Uncle Frank Johnson and his wife, Isabell. In his five-garden plots, he grew tomatoes, chilies, squash, sugar cane, gourds for dippers and rattles, melons and Pima corn and tepary beans.

Their two main food crops were tepary beans and Pima corn. But Ramona's dad was most known for his remarkable 'long green chilies." Chiigo had perfected the growing of chilies and had great tasting mild, medium and fiercely hot *skok ko'okol* (extremely hot chilies) that would leave white blisters on the lips of the uninitiated.

Like those native tribes with a tradition of farming in their culture, gathering and saving seed was core to her father's preservation of some of their native varieties, like the tepary bean. He would save a certain percentage of the best seed from one season and plant them the next, never planting all the saved seed so that if in the event of a crop

failure, there would still be some seed left to plant again. Chiigo told his daughter that she should be aware and to stay true to the traditional ways of growing and preparing and eating the tepary beans, Pima corn, and grinding her own Pima club wheat for flour to make che-chemait (tortillas) and biscuits.

Native to the Americas, Native Americans developed corn, or maize, to what we

have today.

Later, Ramona, possessed with a heart to help people, began formal training as a nurse. Her training took her to Los Angeles, Phoenix and then back to Sacaton. With a degree as a licensed practical nurse, Ramona worked for the U.S. Public Health Service Indian Hospital in Sacaton. The director of nursing, Angel Cimino, a Lakota woman from Rosebud, South Dakota, observing how interested Ramona was in learning and how well she worked with people and cared for patients, offered Ramona an opportunity to take advanced training in Rapid City and Pine Ridge Indian Reservation in South Dakota.

On this extended training trek, Ramona would meet Terry Button, and the rest would be history.

Terry Button's growing-up years couldn't be more different. He was an east coast boy. Terry was born in Thompsonville, Connecticut, the eldest of nine children to Edward and Kathryn Button. They later moved further south to Middletown, where Terry and his three brothers and five sisters were raised. Their father was a WWII veteran, grew up on a tobacco farm in Thompsonville and later became an agronomist, getting his master's degree in science from the University of Connecticut, and eventually became head of Research and Development for the Connecticut Highway Department.

Terry, along with his three brothers, Keith, Karl, and Dale worked for their father on weekends and spring and summer breaks from school. Their mother, Kathryn (Hales) Button, grew up on a farm in Snow Hill, near Salisbury, Maryland, on the Delmarva Peninsula in the Chesapeake Bay area. So, agriculture was by no means foreign to Terry.

Kathryn was the first woman in the Hales family to attend and graduate from college, where she earned a degree in elementary teaching, skills she would hone while raising and educating her nine children, all who are well educated and successful. She was a devoted mother who instilled in all her children a thirst for knowledge and exceptional skills in writing.

Terry attended Middletown High where he lettered in track and cross-country and was a member of the National Honor Society. He attained the rank of Life Scout in the Boy Scouts of America and attended Wesleyan University and studied linguistics and ethnomusicology, among other disciplines.

While running cross-country, he met two exchange students from the Tohono O'odham reservation in southern Arizona and picked up a little of their language, a skill that proved invaluable when he met Ramona in South Dakota, as it was a dialect of her Pima language which she spoke fluently.

A clear sign of how Terry would become intertwined in native American culture, while still in High School, he was at Pine Ridge Reservation in South Dakota one summer. He became quite close to one of the Lakota Sioux families, William and Nancy HornCloud. In a highly ceremonial process, Terry was honorarily adopted during a <u>Hunka</u> ceremony, into the William and Nancy HornCloud Lakota family. In fact, Terry became a Lakota singer, traveling to Powwows and ceremonies in South Dakota, Montana, Colorado and New Mexico. In between these excursions, he broke horses and performed ranch work with his adoptive father, Bill HornCloud.

Chance Encounter, Sort Of: You may recall that Ramona's director of nursing took notice of her and sent her to South Dakota for more training. This was around the same time Terry was living there and working with the HornCloud family.

Terry and Ramona met while she was at the Pine Ridge Indian Hospital on the reservation. If truth be told, it was a setup. Millie HornCloud, Terry's adopted sister and head nurse at the hospital, encouraged Ramona to meet him.

Once Ramona's training was complete, she wanted to head back home to her own people to apply what she had learned. So, when she returned home to Arizona, Terry followed Ramona to Sacaton where they were married, December 1972.

They soon began to farm on the family allotment, around 1974, growing mainly barley and alfalfa. By leasing from her mother's Uncle Frank and Aunt Isabell that land that Chiigo had leased from them, Terry and Ramona had enough acreage to keep Terry busy learning to farm as he worked at a gas station attendant in Sacaton and studied automotive mechanics at night school. He even went to Central Arizona College for ag business accounting under the tutelage of Professor Pat Harrington.

Their Farming Business: In 1976, Ramona and Terry realized an opportunity to expand their farming business. Ramona leased additional land from relatives that had been farmed many years earlier before drought and loss of water delivery had forced the land to be abandoned, leaving it to be overrun with mesquites. A tragic period in history, Pima farmers in the early 1900s had lost their ability to irrigate their fields due to drought and the uncontrolled diversion of water from the Gila River by non-Indian settlers, many Pima families perished from famine.

Groundwater

continued from page 1

(AWS). Before land located in an AMA can be developed, the developer must obtain a certificate of AWS from the Department of Water Resources. And to obtain that certificate, the developer has to show there is enough water available - physically, legally, and continually - to meet the subdivision's needs for 100 years. And, because some of that water can be groundwater, the Department has to determine how much groundwater is available in any given AMA.

To do this, the Department uses a complex water modeling algorithm. This model is predictive, meaning not only does it account for all the groundwater currently in use, such as for agriculture, housing, or mining, it also must account for water currently dedicated to a particular purpose, even if it isn't being currently used. For example, if a subdivision received an AWS for its future development plan, that plan is accounted for in the model. In reality, the 2008 housing market crash rendered some of those development plans no longer economically feasible. At this point, the model will still show that

No one benefits from ignoring the need to decrease groundwater use, but similarly, no one benefits from hasty, fear-based solutions that create winners and losers among water users. Central Arizona needs a fair way forward to sustain its success and

realize its potential.

water as accounted for, even though it isn't being (and may never be) used.

So, to be truly accurate, the model has to predict the future to account for upcoming uses, while also accounting for year-to-year changes in current water use in real time. If it sounds complicated, it's because it really, really is.

Is the model accurate?

The model the Department unveiled in October was intended as a fix to some of the challenges posed by the previous model, which was released in 2014. It included updated pumping estimates, information from irrigation districts on projected use, and other tweaks to improve accuracy. In fact, one of the main drives of Rep. Cook's committee was to pressure the Department to

finalize the model, which has been under development for several years.

While this model is undoubtedly an improvement over the previous version, its inherently complicated nature means that there are still improvements that can be made. Real-time information about agricultural pumping patterns, development decisions, and other water uses will help refine the model to make sure it's as accurate as possible. But, that refinement will take work.

What's next?

Continuing to refine the model will undoubtedly be one of the goals of a stakeholder group that the Ad Hoc committee has committed to form. This group will be made up of water users including ag producers and developers, municipal water companies, and others who are not just interested in the conversation, but who have a true stake in the outcome and the ability to provide helpful, meaningful input.

And the primary goal of the stakeholder group will be to take what the model is currently showing and develop fair, reasonable strategies for dealing with water use in Pinal County. No one benefits from ignoring the need to decrease groundwater use, but similarly, no one benefits from hasty, fear-based solutions that create winners and losers among water users. Central Arizona needs a fair way forward to sustain its success and realize its potential.

Ag's Angle

Aside from caring about the health of our aquifers generally, agricultural producers in Pinal County have two big reasons to engage in this issue. The first is the economic health of Pinal County. If a lack of water, perceived or otherwise, is prohibiting development, that means a stagnant tax base, decreased land values, and lack of economic opportunity for an important and growing portion of our state.

The second reason this should arouse the interest of Pinal County's ag community is the conversation that it will inevitably spark regarding agricultural water use. When there's not enough water to go around, and agriculture is the biggest user of that water, it's natural for the unenlightened urban public to just assume that it makes sense to move water from ag production and towards urban development.

But, as we well know, water use is not water waste. (For an insightful perspective on that topic, see President Smallhouse's recent editorial in the Arizona Capitol Times.) Plus, thanks to the use of advanced irrigation technology, proper soil management, and crop rotation patterns, Pinal farms are using the water they have as efficiently as possible. And those "low-water use" crops that, even in the October committee hearing, we are always told to transition to? Those are in production too, to the extent that there's an existing market where it makes economic sense to grow them.

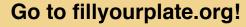
When water supplies come under scrutiny, agriculture is historically the first industry to take a hit. Thankfully, our water use story is a good one to tell. It's time for our farmers, in central Arizona and everywhere, to get ready to tell it to anyone who will listen – and these days, there are a lot more ears tuning in.

Take Fill Your Plate with You on the Road!

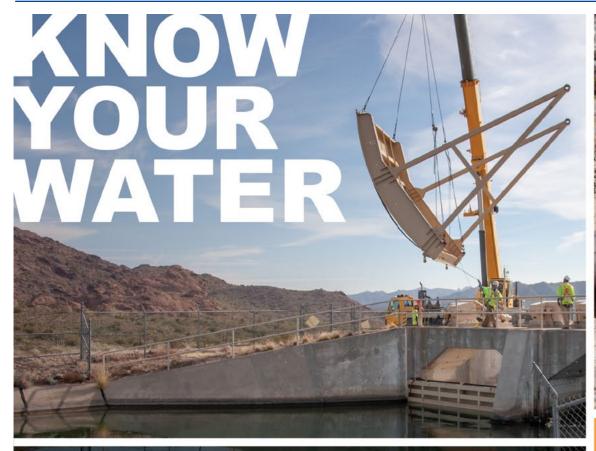
Fill Your
Plate

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

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









The majority of CAP water is used for agriculture

COMMUNITIES & INDUSTRIES

CAP delivers Colorado River water to central and southern Arizona







Customer Focused

Central Arizona Project believes in continuous improvement to meet our customers' needs.



www.CentralArizonaProject.com

Button continued from page 4

Ramona has always felt a calling to bring much of the previously farmed land back. She and Terry saw an opportunity and moved on it.

"My dad dreamed I'd see greener landscapes here in the dry desert," Ramona explained on a recent tour of their farm.

When she climbed Sacaton Mountain as a young girl with her father, he could see into the future and gazed upon green fields even though at the time it was desert and abandoned fields overgrown with brush. He asked her what she saw. Of course, her view was of the abandoned fields and brush. His vision showed him green fields in the distance along the Gila River.

At the time she asked, "Well, who is going to do it?"

He said, "You are."

"How am I going to do that?"

Her dad said, "You will see!"

His vision for Ramona as a child paved the way for what the family is doing today. As I listened to her tell me about that mountaintop climb so many years ago, I thought, "Every child needs a visionary dad like Ramona's."

In 1976, Terry's youngest brother, Dale, moved from where he was working in Florida and helped Terry clear the trees, brush, and old fence lines in order to consolidate ten-acre allotments into larger fields and install concrete-lined irrigation ditches in order to farm more efficiently.

Realizing that they would need to purchase equipment to farm with, as custom services were unavailable in the remote reservation area, and noticing that there were several local Pima individuals who were also interested in farming and had begun to consolidate some of the small allotments in nearby villages, Terry and Dale started a company they named Button Brothers Tillage and provided customer tillage and planting services. As the operation became more efficient, Ramona leased more land for the



Terry stands next to one of their tepary-bean fields in Sacaton. In the late 1970s, some community elders asked the Buttons to grow the Bafv (tepary bean), which had nearly

brothers to operate.

One of their largest customers, farming 1,200 acres mostly with his own equipment, was a Pima farmer with an MBA named Harlan Bohnee. Harlan had an opportunity to pursue a career in teaching at Scottsdale Community College. He approached Terry in 1980 to custom farm and manage his acreage. By 1982, Harlan, Terry, and Ramona formed a farming company known as Stotonic Farms, Inc., named after the village where Harlan had grown up farming his mother, Ruth (Wilson) Bohnee's, extended family lands with his father. Eugene Bohnee was a translocated Hopi, originally from Second Mesa, Arizona.

In 1981, another of Terry's brothers, Karl, graduated from the University of Arizona and came to work on the farm with Terry and Dale. That year, Terry and Ramona purchased a 652-acre irrigated farm on Mirage Flats near Hay Springs, Nebraska, while continuing to farm at Gila River and run a small cow-calf ranching operation with Bill HornCloud, then in his 70s, on the nearby Pine Ridge Indian Reservation in South Dakota. The brothers learned about commercial dry bean production and harvesting, knowledge which put them in a good position to adapt their production techniques for the tepary beans which Terry and Ramona had wanted to increase the acreage for some time. Terry and Ramona sold the Nebraska farm in 1987.

In 1990, the couple and brother, Dale, formed a company known as Dart Properties, LLC to purchase a farm in Stanfield, Arizona where they raised cotton and durum wheat. In 1990 there was not enough water behind the Coolidge Dam on the Gila River at San Carlos for there to be any water allocation for the 100,000 acres of the San Carlos Irrigation Project. Needing to have land to farm to meet their debt obligation and provide work for the employees of Ramona Farms, Karl and Dale leased from the City of Mesa a 1,600-acre tract of land south of La Palma and East of Eloy which had been purchased by Mesa for its water rights. The three brothers surveyed the property, rough leveled some fields, reorganized the irrigation water distribution system with one mile of earthen ditch and a new canal turnout. During the next two years, they raised threebale cotton using only three-and-one-half-acre-feet of water per year. In 1991 they grew three and half bales per acre of Pima cotton.

Early in 1990, Terry and Ramona accompanied a delegation from Gila River and representatives of the Gila River farms to Washington D.C. They testified before the Senate Select Committee on Indian Affairs, as representatives of the private sector in Indian agriculture on the reservation, in support of a request by the Gila River Indian Community for funding by Congress of an "interconnect canal" between the CAP aqueduct east of Coolidge, Arizona to the "Pima Heading" of the San Carlos Indian Irrigation Project. This would enable the Gila River Indian Community to receive its contracted Central Arizona Project Water, for which there was no facility to convey it to the reservation. Little did the Buttons know that the money would be appropriated. The Gila River Farms Construction Division was awarded the contract in the early part of that year and by April of 1990 the interconnect canal was completed. Central Arizona Project supplied water to the Gila River Indian community, which then distributed the water to the growers at a cost of \$55.00 per acre-foot. Since the water was now available and the leases had to be paid, the Buttons were now farming bigger acres. In fact, suddenly the Buttons had 7,500 acres to farm!

"Those were interesting times," say both Terry and Ramona.

Beginning in 1995, with the help of partner and longtime friend, Tim Robinson, godfather of their son Edward, they grew Robust Premium super-sweet corn. With two harvests a year, they supplied most of the major grocery chains and many small brokerages with waxed-cartons of four dozen ears of fresh sweet corn, place-packed and slushice injected, picked fresh every day during the season. They shipped to locations as far as the Mississippi River to the West Coast and from Canada to Mexico. It was shipped from coolers located in Maricopa, Eloy, Phoenix, and the Salt River Indian Reservation and finally from Yuma, as local cooler space was overtaken by the thousands of acres of cantaloupes that were then being grown in Pinal and Maricopa counties for Dole and Del Monte.

Today, Terry's brother, Dale farms cotton, durum wheat, garbanzo beans and Bermuda grass hay on the Stanfield farm. Harlan Bohnee, now deceased, retired from the Button and Bohnee Farming Partnership in 2016 while Terry, Karl, and Danny Mark continue to run the 4,000-acre commercial farming operation and grow the traditional crops organically for Ramona's American Indian Food, LLC, dba, Ramona Farms.

What Inspires Their Efforts? Along with their mission of bringing back the traditional foods of the Pima, Terry, and Ramona have worked to set an example for other Indian community members and have encouraged them to become engaged in agriculture. It has been their mission to encourage entrepreneurship within the Gila River Indian Community and to promote the use of Indian land, water and labor resources by Indian people themselves to develop the local economy of their reservation communi-

Terry and Ramona have been instrumental in re-establishing agriculture on the reservation, improving water distribution to Indian farmers, and providing custom farming and harvesting services for small and beginning Pima farmers. Terry is always available to give advice and assistance when asked. The Buttons are noted for the consistent quality of their production of commodity crops including cotton, durum wheat, alfalfa, and Bermuda grass hay. They are noted for their consistently high quality and tough, but fair, price negotiation.

Thanks to hard work and family devotion, encouragement of friends and landowners and great partners, Ramona Farms has been successful for more than 42 years.

Their Heritage Crops: As mentioned earlier, Ramona was asked by the elders of her tribe to grow the Pima people's traditional crops. As a result, Ramona Farms has been a leader in the growing and harvesting of traditional Native American food crops and the preservation of indigenous heirloom seeds since the 1970s. In addition to growing traditional Pima crops of tepary beans and Pima corn, they also grow Hopi blue and Supai red corn varieties obtained from trade with neighboring tribes, as well the "acculturated" food crops brought by Jesuit missionary, Padre Kino, who in 1685, was the first European to make contact with the Akimel O'odham (Pima). These "acculturated" crops have been grown by the Pima for over 300 years, and include black-eyed peas, garbanzo beans, white Sonora wheat, Pima club wheat, and melons. Ramona and Terry and their family also grow commercial crops of cotton, alfalfa, bermuda grass for hay, durum wheat, barley, oats, corn and grain sorghum on the several thousand acres of Gila River Indian community lands.

Terry explains that commercial crops, like cotton, durum wheat, and alfalfa, help finance their work with the heritage crops.

All three children and grand-niece, Maria Pablo, grew up helping in the fields irrigating, driving tractors and weeding endless miles of cotton, corn and bean rows during their summer vacations from school.

Brandy, their eldest daughter, a chef, helps to promote their native food crops, using them whenever she caters for large gatherings and special occasions. Velvet, the second daughter, possesses a flair for creating exciting and attractive food dishes and has a passion for gathering the wild foods of the desert. She develops recipes using traditional foods in new and unique ways, providing cooking classes and demonstrations. With the help of their 'sister,' Maria Pablo, who works at the farm office, and together with grand-daughters Isabella Rose, Brandy's daughter, and Maize Indigo, Maria's daughter, they promote Ramona Farms products at trade shows, farmers' markets, conferences, and schools where they help Ramona educate young Pima students about their wonderful culture and "native foodways" and encourage them to eat healthy traditional foods and learn about how they are grown and prepared. Edward, Terry and Ramona's youngest, helps with the growing and harvest of the beans and other crops and studies holistic nutrition. Son Edward's daughter, Tea Bri, is the youngest grand-daughter. She is a freshman in Florence High School, where she is involved in softball and student council. Tea rode cotton pickers with her dad at the age of three years old and loved to ride on her grand-father's shoulders as he checked their cotton, corn, grain sorghum, wheat and tepary bean fields.

Terry's brothers, Dale and Karl, have worked as part of the family helping to run the farm since 1976 and 1980 respectively. Dale is now farming on his own on the Dart Properties farm in Stanfield. Karl is the Production Coordinator, for Ramona Enterprises, who schedules irrigation, tracks water use and maintains fertilizer and crop protection chemical applications on the conventional crops. He also does the land-leveling design and cotton and grain harvest supervision. Their sister, Karen, employed with the family farm since 1986, is the office manager and comptroller and manages the internetbased store, all via a virtual private network from her hometown of Middletown, Connecticut, where she and youngest sister, Marsha, reside and care for their 96-year-old mother, Kathryn Button. Another important member of the farm business is the irrigation foreman, Danny Mark, a Pima tribal member who has been with Ramona Farms since 1983. In fact, the 20 employees of Ramona Enterprises are a critical part of what makes the farm run. Their dedication to the farming operation is felt every day.

Looking back, they now realize that the family farming tradition is a continuation of the efforts of Ramona's father, Chiigo, born in 1894. Today the family farms with modern machinery the very land that Chiigo farmed with horses. His long-ago vision (around 1955) from atop Sacaton Mountain is now reality. 🚜



Arizona Farm Bureau®

Don't miss out on this offer. Visit FordFarmBureauAdvantage.com today!

*Class is Full-Size Pickups under 8,500 lbs. GVWR based on Ford segmentation.

**Max payload on F-150 XL Regular Cab, 8' box, 5.0L V8 4x2, Heavy-Duty Payload Package and 18" heavy-duty wheels (not shown). Max towing on F-150 XL SuperCrew®, 6.5' box, 3.5L EcoBoost® 4x2, and Max Trailer Tow Package

***Farm Bureau Bonus Cash is exclusively for active Farm Bureau members who are residents of the United States. This incentive is not available on Mustang Shelby® GT350/350R, Mustang BULLITT, Ford GT, Focus RS and F-150 Raptor. This offer may not be used in conjunction with most other Ford Motor Company private incentives or AXZD-Plans. Some customer and purchase eligibility restrictions apply. Must be a Farm Bureau member for 30 consecutive days prior to purchase and take new retail delivery from dealer by January 2, 2020 Visit FordFarmBureauAdvantage.com or see your authorized Ford Dealer for qualifications and complete detail

Farmers Get a Bit of a Break Under Trade Deal with Japan

By Tyler Davis, Arizona Farm Bureau Government Relations Manager

'n September, the United States and Japan came to an agreement during their negotiations in the areas of market access for certain agriculture and industrial goods. Further negotiations are planned to address the remaining tariff and non-tariff barriers but for now this is a win for agriculture.

Japan is the fourth largest buyer of U.S. farm and ranch goods even though there has been an average of 17.3% tariffs on U.S. agricultural products. The reason for this high percentage is not hostility but instead the result of not having a free trade agreement between the two countries. Japan has been very open about its preference toward U.S. products. Since the Trump Administration pulled out of the Transpacific Partnership (TPP) the next logical step would be to pursue a free trade agreement between Japan and the United States.

This preferential trade agreement will go into effect March 31, 2020. Beef tariffs will fall from 38.5% to 26.6%. Fresh or chilled poultry will fall from 11.9% to 7.9%. Duck, geese, and turkey will be tariff free, as would the majority of fresh vegetables. All nuts except chestnuts and pecans will enter Japan duty free. The tariff on fresh apples will fall from 17% to 11.4%. The tariff on cherries will fall from 8.5% to 3.4%. Fresh strawberries, raspberries, peaches, and melons will enter Japan all duty free.

Furthermore, Japan promised more access to its CPTPP dairy suppliers through a tariff-rate quota. When the U.S. was a member of the TPP, U.S. dairy exporters would have had the opportunity to compete against Australian and New Zealand dairy companies for the quota volumes. However, in the absence of the U.S., Australian and New Zealand companies have been developing sales relationships to fill those quotas. It is still in question what the tariffs for pork, rice, wheat, and processed foods containing wheat will look like in the future. But, in the meantime the outlook is positive.

Japan's agriculture imports from the United States are up 5.8% since July 2019. Dairy imports in Japan are up 16%. A similar story can be told for importing U.S. pork into Japan with a 12% increase.

Tariff reductions between the two countries will only aid in the relationship and enhance free markets within the region. This is only the beginning of a trade relationship between the United States and Japan. More talks and negotiations are planned, and more agreements are to be had. In the meantime, we will celebrate this victory with one of our allies and trade partners.



Follow "Friends of Arizona Farm Bureau" and "Fill Your Plate" on Facebook.



together

cooperative - offering loans, leases, competitive rates and unmatched service. We are your partners in agriculture - your success is our success.

We're a true member-owner



FarmCreditWest.com 800.822.3276

FARM CREDIT WEST®

United States Postal Service Statement of Ownership, Management, and Circulation

- 1. Publication Title: Arizona Agriculture
- 2. Publication Number: 0274-7014
- 3. Filing Date: 10-01-19
- 4. Issue Frequency: Monthly (9 times annually)
- 5. Number of Issues Published Annually: 9
- 6. Annual Subscription Price: \$50.00
- Complete Mailing Address of Known Office of Publication: Arizona Farm Bureau Federation 325 S. Higley Rd, Suite 210, Gilbert, Arizona, 85296
- Complete Mailing Address of Headquarters or General Business Office of Publisher: Arizona Farm Bureau Federation Arizona Agriculture 325 S Higley Rd, Suite 210, Gilbert, Arizona, 85296
- 9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor
 - Publisher: Philip Bashaw 325 S Higley Rd, Suite 210, Gilbert, Arizona, 85296
 - Editor: Julie Murphree 325 S Higley Rd, Suite 210, Gilbert, Arizona, 85296
 - Managing Editor Julie Murphree 325 S Higley Rd, Suite 210, Gilbert, Arizona, 85296
- 10. Owner: Arizona Farm Bureau Federation 325 S Higley Rd, Suite 210, Gilbert, Arizona, 85296
- Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: None
- 12. Tax Status: The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes has not changed during preceding 12 months
- 13. Publication Title: Arizona Agriculture
- 14. Issue Date for Circulation Data: 9-1-19
- 15. Extent and Nature of Circulation: Agriculture industry news
 - a. Total Number of Copies (Net press run): Average No. Copies Each Issue During Preceding 12 Months 2802; No. Copies of Single Issue Published Nearest to Filing Date —2793.
 - b. Paid and/or Requested Circulation:
 - Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. (Include advertiser's proof and exchange copies): Average No. Copies Each Issue During Preceding 12 Months —2652; No. Copies of Single Is sue Published Nearest to Filing Date — 2643.
 - ii.Paid In-County Subscriptions Stated on Form 3541 (Include advertiser's proof and exchange copies): Average No. Copies Each Issue During Preceding 12 Months — 0; No. Copies of Single Issue Published Nearest to Filing Date
 - iii.Sales Through Dealers and Carriers, Street
 Vendors, Counter Sales, and Other Non-USPS
 Paid Distribution: Average No. Copies Each
 Issue During Preceding 12 Months 0; No.
 Copies of Single Issue Published Nearest to
 Filing Date 0.
 - iv. Other Classes Mailed Through the USPS:
 Average No. Copies Each Issue During Preceding 12 Months 0; No. Copies of Single Issue Published Nearest to Filing Date 0.
 - c. Total Paid and/or Requested Circulation [Sum of 15b. (1), (2), (3) and (4)]: Average No. Copies Each Issue During Preceding 12 Months 2652; No. Copies of Single Issue Published Nearest to Filing Date 2643.
 - d. Free Distribution by Mail (Samples, complimentary, and other free)
 - i. Outside-County as stated on Form 3541:
 Average No. Copies Each Issue During Preceding 12 Months 0; No. Copies of Single Issue Published Nearest to Filing Date 0.
 - ii. In-County as Stated on Form 3541: Average No. Copies Each Issue During Preceding 12 Months — 0: No. Copies of Single Issue Published Nearest to Filing Date — 0.
 - iii. Free or Nominal rate copies mailed at Other Classes Through the USPS: Average No. Copies Each Issue During Preceding 12 Months — 50: No. Copies of Single Issue Published Nearest to Filing Date- 50.
 - iv. Free or Nominal rate distribution outside the mail: Average No. Copies Each Issue During Preceding 12 months - 0: Copies of Single Issue Published Nearest to Filing Date — 0.
 - e. Total Free or Nominal Rate Distribution: Average No. Copies Each Issue During Preceding 12 Months — 50: No. Copies of Single Issue Published Nearest to Filing Date — 50.
 - f. Total Distribution (Sum of 15c and 15e): Average No. Copies Each Issue During Preceding 12 Months 2702: No. Copies of Single Issue Published Nearest to Filing
 - g. Copies not distributed: Average No. Copies Each Issue
 During Preceding 12 Months 30: No. Copies of Single
 Issue Published Nearest to Filing Date 30.
 - h. Total (Sum of 15f and g.): Average No. Copies Each
 Issue During Preceding 12 Months 2732: No. Copies
 of Single Issue Published Nearest to Filing Date —2723.
 i. Percent Paid and/or Requested Circulation (15c. divided)
 - by 15f. times 100): Average No. Copies Each Issue During Preceding 12 Months 98%: No. Copies of Single Issue Published Nearest to Filing Date 98%.
- Publication of Statement of Ownership: Publication Required.
 Will be printed in the Nov 5, 2019 issue of this publication.
- 17. Signature and Title of Editor, Publisher, Business Manager, or

Owner: Date 10-1-19

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

Racin' Pigs and Raising Funds

By Katie Aikins, Arizona Farm Bureau Education Director

he 2nd Annual Racin' Bacon Derby Dinner presented by the Arizona Pork Council and benefitting the Arizona Farm Bureau Educational Farming Company was a huge success! Last month, 135 attendees gathered to enjoy local eats, local drinks, silent and live auctions, pig racing, derby hat contests, and much more. This year's generous attendees, sponsors, and donors helped raise more than \$20,000 to support the mission of the Foundation!

100 percent of the proceeds are utilized in our continuing efforts to educate Arizona's youth and consumers with the opportunity to come back to the farm and learn where their food comes from. We hope to see you at next year's event!

The mission of the Arizona Farm Bureau Educational Farming Company is to educate the public of all ages about the importance of Arizona's agriculture



Hats brought some added fun to the evening!

through educational programs that teach about the production of food, fiber, and natural resources highlighting Arizona agriculture's diversity and dynamic. Go to AZFB.org to see this year's list of givers to AZFB's Educational Farming Company.

PIG SPONSORS

Danzeisen Dairy High Desert Communications Maricopa County Farm Bureau

SWAG BAGS

Old Ellsworth Brewery

Callaghan Vineyard

Arizona Grain Research & Promotion Council

DRINK SPONSORS

LDV Vineyard Golden Rule Vineyard

TABLE SPONSORS

Dairy Council of Arizona Riverview Dairy

BAR SPONSOR

Matthew Schmidbauer-FBFS

Bodega Pierce Vineyard Danzeisen Dairy



Gain Confidence in Your Retirement Strategy

If you're feeling uncertain about the market and your retirement savings, you're not alone. AccumuLock Indexed Annuity® can help you grow your savings by locking in market gains, while protecting you from market losses.

Contact your Farm Bureau agent today to learn more!



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

fbfs.com