

Greater Yuma EDC

Investors Making News



February 26, 2016 Issue

- AWC Public Safety, Health and Education Careers Expo
- TFB Bancorp, Inc. Announces Earnings Increase of 45% Year Over Year
- JTED Restoration: Thank You Letter
- Nominees Sought For Education Awards
- YRMC Emergency Department Construction
- Yuma Private Industry Council Gets New Name, Partners
- New Frontier: Technology Makes Yuma Ag Even More Efficient, Productive



C. Kevin Imes, Superintendent

**Southwest Technical Education
District of Yuma**
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February 18, 2016

Dear STEDY Family and Friends,

We want to express our deepest appreciation for all the determination and support you provided the Southwest Technical Education District of Yuma (STEDY) regarding the restoration of JTED funding.

We are incredibly grateful for all of the people who have supported us and contacted their legislators. We are especially grateful for our legislators (Senators Don Shooter and Lynne Pancrazi and Representatives Charlene Fernandez and Lisa Otundo) who have prioritized CTE in an unprecedented, unanimous repeal of the cut. Now, we are excited to announce the Governor has signed the bill into law.

The restoration of funding means STEDY will be in a position to honor our full commitment of financial support to career and technical education for thousands of students throughout Yuma County. We believe there is no better investment in America's future than to help our young people get the education they will need to succeed in the 21st century.

We are grateful for all you have done, and pledge our best efforts in continuing this service. Please accept our warmest heartfelt thanks.

A handwritten signature in black ink, appearing to read "C. Kevin Imes".

C. Kevin Imes
Superintendent
Southwest Technical Education District of Yuma (STEDY)



Good Afternoon:

On behalf of Career and Advisement Services, I would like to extend to you an invitation to participate in our upcoming Careers for Matadors Expo entitled Public Safety, Health and Education Careers. The goal of this expo is to provide information on career opportunities, internships, and volunteer opportunities in various industries and occupations related to the following AWC majors: Administration of Justice, Community Health Worker, Customs and Border Protection Homeland Security, Early Childhood Education, Elementary/Secondary Education, EMS-Paramedic, Exercise and Wellness, Fire Science, Homeland Security, Law Enforcement Training, Nursing, Radiology, and others.

The Expo is scheduled for Wednesday March 16, 2016 from 9:00am to 1:00pm in the 3C Courtyard on the Arizona Western College Main Campus. We look forward to seeing you! Please complete the registration form no later than Monday March 7, 2016. You can fill out the form, print it and fax it to us at (928) 344-7710 or [complete the form](#), and e-mail it back to career.services@azwestern.edu.

If you have any questions, please contact Donna Lay at (928)344-7605.

Thank you in advance for your participation!

Sincerely,

Donna

Donna L. Lay
Arizona Western College
Experiential Learning Specialist
Career and Advisement Services

TFB Bancorp, Inc. Announces Earnings Increase of 45% Year Over Year

February 03, 2016 07:00 AM Eastern Standard Time

YUMA, Ariz.--(BUSINESS WIRE)--Yuma, Arizona based TFB Bancorp, Inc. (OTC Symbol "TBBN") today reported financial results for the quarter and year ended December 31, 2015.

About TFB Bancorp, Inc.

TFB Bancorp, Inc. (the "Company") was created as a bank holding company effective January 6, 2015. Holders of The Foothills Bank ("the Bank") common stock exchanged those shares for an equal number of common shares of TFB Bancorp, Inc. as of that date, and the Bank became a wholly owned subsidiary of the Company. In the prior period shown in these consolidated financial statements, the 2014 amounts refer to the amounts of The Foothills Bank, which are comparable to the current year presentation.

The Foothills Bank, founded in 1997, provides full-service community banking services with branch office locations serving the Arizona counties of Yuma, Pinal and Yavapai. Please visit www.foothillsbank.com to learn more about the Bank.

Financial Highlights for the year ended December 31, 2015 (unaudited):

- 2015 Return on average assets of 1.03%
- 2015 Return on average equity of 8.17%
- Interest income of \$12.6 million, up 2%
- Cost of interest-bearing liabilities of 7 bps
- Net interest income of \$12.4 million, up 3%
- Pre-tax income of \$4.5 million, up 48%
- Total loan growth of \$17 million, up 8%

Interest income remained consistent at \$3.1 million in both the fourth quarter 2015 and 2014. Interest income increased to \$12.6 million from \$12.3 million year over year in spite of the prolonged low interest rate environment, due to a change in the asset mix, which consisted of redeploying excess liquidity and investment securities into loans. Total loans increased more than \$17 million over prior year, or 8%, to \$222.7 million on December 31, 2015. Investment securities decreased \$11 million, or 21% over that same period.

Interest expense decreased from \$40,000 in fourth quarter 2014 to \$21,000 in fourth quarter 2015 due to certificates of deposit renewing at lower rates and a new tiered money market structure implemented in fourth quarter 2015. Year over year total deposits increased \$1.3 million, or 1%, while the cost of interest bearing liabilities decreased from 10 basis points to 7 basis points over that same period reducing interest expense by 38%. Demand deposits continue to comprise more than 50% of the deposit portfolio on December 31, 2015 and 2014.

TFB Bancorp, Inc. Announces Earnings Increase of 45% Year Over Year

Due to strong loan portfolio performance and success in pursuing recoveries from previous problem loans, the provision for loan and lease losses in 2015 was a benefit of \$791,000 versus a charge of \$358,000 in 2014. Nonperforming assets of \$3.8 million on December 31, 2015 have decreased \$1.6 million, or 29%, year over year.

Noninterest expenses decreased to \$2.2 million in the fourth quarter 2015 compared to \$2.4 million in the fourth quarter 2014, a 6% decrease. Year over year noninterest expenses have decreased to \$9.5 million compared to \$10.0 million, a 5% decrease. Ongoing expense control contributed to an improved Efficiency Ratio of 72.01% compared to 73.48% on December 31, 2014 despite the incurrence of significant implementation costs during 2015 associated with a core system conversion successfully completed in the third quarter 2015.

Capital ratios for the Bank remain well above the levels required for a “well capitalized” institution as designated by the regulatory agencies. The book value and tangible book value increased to \$17.12 and \$14.94 per share on December 31, 2015, respectively, for an annual increase of 9% and 10%, respectively.

Strong profitability increased the return on average assets to 1.03% in 2015 from 0.72% in 2014, a 44% increase. Return on average equity increased to 8.17% in 2015 from 5.12% in 2014, a 61% increase.

“We are impressed with the Bank’s ability to endeavor through a core conversion while simultaneously growing the Bank, controlling expenses and delivering impressive net income for 2015,” said Mary Lynn Lenz, President of The Company and President and CEO of The Bank. “Management’s focus on shareholder value and superior customer service has boded well for the results.”



“Management’s focus on shareholder value and superior customer service has boded well for the results.”



Forward-Looking Statements

Statements in this press release that are not statements of historical or current fact constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other unknown factors that could cause the actual results of TFB to be materially different from the historical results or from any future results expressed or implied by such forward-looking statements. You can identify these forward-looking statements by the use of words like "strategy" "anticipates" "expects" "plans" "believes" "will" "estimates" "intends" "projects" "goals" "targets" and other words of similar meaning. You can also identify them by the fact that they do not relate strictly to historical or current facts. Forward-looking statements include, but are not limited to, those made in connection with attractiveness of common stock to potential investors following a stock split and with respect to the future results of operations, financial condition and the business of TFB which are subject to change based on the impact of various factors that could cause actual results to differ materially from those projected or suggested due to certain risks and uncertainties. These risks and uncertainties include, but are not limited to, changes in general economic conditions, interest rates, deposit flows, loan demand, internal controls, legislation or regulation and accounting principles, policies or guidelines, as well as other economic, competitive, governmental, regulatory and accounting and technological factors affecting TFB's operations. TFB assumes no obligation to update any forward-looking statements as a result of new information or future events or developments.

Mary Lynn Lenz, President (928) 217-1135 marylynn.lenz@foothillsbank.com or Danelle Thomsen Secretary-Treasurer(928) 217-1122 danelle.thomsen@foothillsbank.com

TFB Bancorp, Inc.
Balance Sheets

(Dollars in \$000's)

	As of December 31,	
	(Unaudited)	(Audited)
	<u>2015</u>	<u>2014</u>
Assets		
Cash and due from banks:		
Interest-bearing	\$ 13,073	\$ 15,539
Noninterest-bearing	4,721	3,644
Total cash and due from banks	<u>17,794</u>	<u>19,183</u>
Investment securities available-for-sale at fair value	41,554	52,669
Loans, net of unearned fees	225,590	208,360
Allowance for loan losses	(2,937)	(3,235)
Net loans	<u>222,653</u>	<u>205,125</u>
Other Assets		
Bank premises and equipment, net	4,130	4,974
Real estate held for sale	392	-
Other real estate owned	913	672
Goodwill	4,723	4,723
Core deposit intangible	211	296
Bank owned life insurance	7,654	7,450
FHLB and other bank stock at cost	1,455	1,266
Other	1,459	2,097
Total Assets	<u><u>\$ 302,938</u></u>	<u><u>\$ 298,455</u></u>
Liabilities		
Deposits:		
Noninterest-bearing demand	\$ 89,923	\$ 87,999
Interest-bearing demand	46,465	43,870
Savings and money market	105,029	103,592
Certificates of deposit	20,184	24,841
Total	<u>261,601</u>	<u>260,302</u>
Other liabilities	2,545	2,498
Equity		
Shareholders' Equity	38,792	35,655
Total Liabilities and Shareholders' Equity	<u><u>\$ 302,938</u></u>	<u><u>\$ 298,455</u></u>
Selected data:		
Total loans to deposits	86%	80%
Tangible equity	33,858	30,636
Shares outstanding	2,266,062	2,260,332
Book value per share	\$ 17.12	\$ 15.77
Tangible book value per share	\$ 14.94	\$ 13.55

TFB Bancorp, Inc.
Income Statements
(Dollars in \$000's)

	Year ended December 31,		Three months ended December 31,	
	(Unaudited) 2015	(Audited) 2014	(Unaudited) 2015	(Unaudited) 2014
Interest income				
Cash equivalents	\$ 16	\$ 33	\$ 5	\$ 4
Interest-bearing CD's	54	104	10	21
Investment securities	1,253	1,181	293	354
Loans	<u>11,230</u>	<u>10,954</u>	<u>2,774</u>	<u>2,709</u>
Total	12,553	12,272	3,082	3,088
Interest expense				
Deposits	113	182	21	37
Other borrowings	<u>3</u>	<u>4</u>	<u>-</u>	<u>3</u>
Total	116	186	21	40
Net interest income	12,437	12,086	3,061	3,048
Loan loss provision/(benefit)	(791)	358	202	175
Net interest income after provision for loan losses	13,228	11,728	2,859	2,873
Non-interest Income				
Deposit fees	426	401	192	98
Other fees	340	397	111	100
BOLI income	275	280	69	70
Stock dividends	157	92	30	22
Gain (loss) on sale of Investment Securities	(145)	-	0	-
Gain (loss) on sale of REO	(108)	201	9	129
Other non interest income (loss)	<u>(148)</u>	<u>(37)</u>	<u>(12)</u>	<u>(32)</u>
Total	797	1,334	399	387
Non-interest expense				
Salaries and employee benefits	4,606	4,796	1,190	1,243
Occupancy expense	1,408	1,158	532	53
Data processing	1,365	1,069	204	323
Legal and professional	326	523	30	7
Other	<u>1,825</u>	<u>2,467</u>	<u>275</u>	<u>740</u>
	9,530	10,013	2,231	2,366
Net operating income before provision for income taxes	4,495	3,049	1,027	894
Income tax expense	1,432	943	328	189
Net income after tax	<u>\$ 3,063</u>	<u>\$ 2,106</u>	<u>\$ 699</u>	<u>\$ 705</u>

NOMINEES SOUGHT FOR EDUCATION AWARDS

Posted: Wednesday, February 17, 2016 8:29 pm
By Amy Crawford, staff writer



Educating a child can take an army of people.

Besides teachers, there are support staff, school services staff, administrators, school board members, volunteers and coaches, to name a few. All work to benefit children, often without reward or recognition.

That's why the Yuma County Chamber of Commerce, working with two of its committees, conceived the idea for the S. June Pallack Excellence in Education Awards, said John Courtis, executive director of the chamber, to recognize those who work tirelessly for children.

"We're looking for unsung heroes," Courtis said. "We're looking for those who are committed to education in Yuma County, and just as passionate."

Nominations are open in six categories: school services staff; support staff; administrators, Business Partner of the Year; Volunteer of the Year; and School Board Member of the Year.

If a person is unsure into which category a nominee may fall in, that's OK, Courtis said, just send it into the chamber anyway.

Nominations close March 31 and can be submitted online at www.yumaexcellence.com or dropped off at the Yuma Chamber of Commerce office at 180 W. 1st St. Nominations are open to public, private, charter, parochial and home-school workers.

Awards will be presented by the 2016 Teacher of the Year on May 12 at the Good Morning, Yuma! breakfast.

"We're looking for individuals that," Courtis said, "live and die by the success of the children, K-12, of Yuma County."

Amy Crawford can be reached at 539-6863 or acrawford@yumasun.com.

YRMC EMERGENCY DEPARTMENT CONSTRUCTION

Gallery. Yuma Sun

Construction of the new Emergency Department at Yuma Regional Medical Center continues to move along with an expected opening in the latter half of 2016, according to a YRMC spokesperson. Last week the Yuma Sun was granted a tour of the multi-level facility, which is illustrated in these photographs. McCarthy Building Companies Inc. is the general contractor for the new emergency department, which will have 58,000 square feet of space, compared to the current department's 17,200 square feet. Bed capacity will increase from 37 beds to 72 and the structure will have the capacity to accommodate more than 100,000 visits a year, compared to 70,000 currently. The new structure will also include an underground parking garage and two elevated helipads



YRMC construction

The elevator bank for Yuma Regional Medical Center's new Emergency Department is still a steel skeleton at this point in the construction process.

YRMC construction

The tower crane literally towers above the roof of Yuma Regional Medical Center's new Emergency Department.



YUMA REGIONAL MEDICAL CENTER
Caring for the growing needs of our communities

YUMA PRIVATE INDUSTRY COUNCIL GETS NEW NAME, PARTNERS

A statewide rebranding of the workforce development system brought a new name and new possibilities to the offices of the Yuma Private Industry Council Wednesday.

Now known as Arizona@Work Yuma County, the new name unifies the organization with 12 regional and 47 local centers across the state, which have been operating as public-private partnerships connecting job seekers with employers wanting to hire and keep qualified workers to fill their positions.

Using the Arizona@Work name throughout the state will make it easier for anyone needing those services to locate them no matter what community they're located in, Operations Manager Patricia Ray said just after the new sign was unveiled Wednesday morning.

YPIC, as the local organization has been known since it incorporated in 1988, connects about 19,000 job seekers a year with job postings, along with other job-hunting resources and workshops, unemployment assistance, computer skills and other training Ray said.

A new website address, www.arizonaatwork.com, also links all the Arizona statewide locations, she said. "So this is kind of coordinating this whole effort, because when people need to find a job, they just look for Arizona@Work," she said, adding that their programs are part of the American Job Center network.

She said YPIC's corporate name will remain the same for official purposes, and its charter school will also retain the name.



Photo by Randy Hoeft/Yuma Sun

YPIC changes

Dave McDowell (with scissors), vice chairman of the Workforce Innovation and Opportunity Act, Local Workforce Development Board, cuts the ribbon at what was formerly Yuma Private Industry Council, and is now Arizona@Work following the unveiling of the agency's new name Wednesday morning.

Posted:
Wednesday,
February 17,
2016 11:28 pm |
Updated: 11:36
pm, Wed Feb 17,
2016.
By Blake Herzog,
staff writer



The new statewide network will also mean improved access to other services including vocational rehabilitation and adult education through partners such as Goodwill of Arizona. "We'll have more well-rounded services for folks," Ray said.

Free services for job seekers include searching state or national job databases, help with resumes, cover letters and job interviews, career guidance and assessment, and career training programs. Employers are provided with candidate matching and pre-screening, skills assessment, hiring events, and other recruiting services and employee development programs.

Arizona@Work Yuma County has three locations: the Yuma Career Center at 3826 W. 16th Street, the Martin Luther King Youth Career Center at the MLK Center, 300 S. 13th Ave., and Employment Service at the Arizona Department of Economic Security, 1185 S. Redondo Center Drive. YPIC has been Yuma County's designated "One-Stop" workforce development center under the federal Workforce Investment Act.

Raul Canal, a youth specialist who has been working at the MLK Center location for a year, said he works with those ages 16-24 who need additional education or workplace skills, and has helped people find work at Yuma Trucking, Palm View Rehabilitation, Marshalls and others, often when a 10-week workplace experience through the program turns into a permanent job.

The work has been especially gratifying for him as he helps young people discover their skills. "Some of them are so shy they don't know how to communicate," he said. "We help them to open up and at the end of a 10-week workplace experience they're new people," he said.

One couple in their early 20s had to drive 90 minutes each way from La Paz County to get services, while living with their parents and caring for their two small children. The husband was a military veteran and his wife had not graduated from high school.

Now they live in Yuma, where the wife found work as a medical records assistant after getting her GED, and her husband is working and attending college, Canal said.

For more information about services for employers or job-hunters in Yuma, call 928-329-0990 or visit www.arizonaatwork.com/yuma.

Yuma Sun staff writer Blake Herzog can be contacted at 928-539-6856 or bherzog@yumasun.com.



NEW FRONTIER: TECHNOLOGY MAKES YUMA AG EVEN MORE EFFICIENT, PRODUCTIVE

The need to produce 70 percent more food by the year 2050 to sustain a growing global population with less water and land sounds like “Mission Impossible.” Moreover, the agricultural trends in technology alone to accomplish this seem more like science fiction than reality.

“Ag is seen as the next frontier for technology,” says Paul Brierley, the University of Arizona’s executive director of the Yuma Center of Excellence for Desert Agriculture. “Much work is being done to apply Silicon Valley and military technology to agricultural needs and to bring venture capital to that process to make it happen.”

“We’re really putting together a strong scientific approach to the thing, which is really neat,” says Kurt Nolte, director of the University of Arizona’s Yuma Agricultural Center. “There are not a lot of universities out there that are doing that. Despite that we are small, we are probably in the top ten in the U.S.”

Technological advances in agriculture, coupled with computer software, produce staggering amounts of data to enable farmers to predict and improve crop yield. For instance, the use of unmanned aerial vehicles, or drones, help farmers determine crop production, even though the plants may be only three days old.

“Trying to stay on top of that is going to be kind of a challenge,” says Nolte, who teaches and conducts research for the UofA. Demand for this technology is high.

Locally, the Agriculture Cooperative Extension recently teamed up with Yuma Proving Ground to bring to the ag community YPG’s expertise and years of experience with drones, explains Nolte. From mid-November through January, ag specialists will fly UAVs over fields as part of their research to assess variability “in the height of the lettuce and then try to correlate that with yield as well, so that maybe we can get yield estimates of the crop prior to actual harvest,” he says. He adds that farmers “want to have a prediction of how much potential is in a field versus another field. Are they going to have to call in more people? Are they going to have to shift over to another field to fill that order? That’s all part of it.”

So picture if you will: drones, outfitted with stabilized cameras, photographing crops every few seconds from an altitude of some 100 feet (about the height of the tall palm trees). These photos, stitched together using a specialized computer software, produce a three-dimensional “orthomosaic,” an overlapping collage of the field. That aerial view will enable a grower to acquire information about each plant’s welfare.

[Continue next page ...](#)

Posted: Saturday, January 2, 2016 4:30 pm

By **Sylvia Allen Special to the Sun**

"That dark green pixel is much different from that little light green pixel," Nolte says, pointing to an image on his computer screen. "And believe it or not, that little light green pixel is a plant that we can farm differently than the one next to it. Each pixel is about a half-inch, and the technology is so advanced now that we can apply fertilizer to that little half-inch square and leave the other one alone. It's mind-boggling the data that we can collect. It's enormous the amount of data that we can generate now using the camera as a sensor."



Ag Trends

Drone hovers over field of cantaloupe.

Referring to the results, called "Big Data," Nolte says, "Being able to manage all of this data that's coming in and making it available to growers is an enormous task," trying to collect, interpret, and then store it. "We don't know how to manage a lot of that. And that's a trend that's not going to end in a long time. We're always going to be rattling our brain on how to deal with that."

Specialized computer software aids interpretation of the data in the high resolution digital photos, which the drones take, to determine a "stand count" (the number of plants in a field). Each digitized pixel within these photos can provide the grower with information about each plant's welfare. This, in turn, leads to prediction of yield.

"If you wanted to get on your hands and knees," Nolte says, "you could crawl around and count them, which would be very inconvenient and hot. And if the sprinklers are going, you're up to your ankles in mud, and no one wants to do that. So I'm exploring right now the possibility of counting these electronically, using the software."

Converting the images to black and white, Nolte puts them into a sophisticated software, enabling him to count the dark spots representing each plant. Pointing to his computer screen, he says, "This is plant 24; this is 22 and so on."

Recently the drones aided in assessing crop damages after September's severe rainstorm. Their data can also measure crop damage from other sources such as over-spraying or plant viruses. In mid-September, for instance, they were used to detect a virus that affects the leaves of a field of cantaloupes.

"If we have a thermal camera up there, and we fly it in the morning, the leaves are going to be slightly cooler than the fruit," says Kolte. "So the fruit is really going to stand out. And you can run it through the software and actually count and determine the size."

Leon Farr, a UofA upperclassman getting his first experience at flying the drone, adds that you can also determine "the 'bummer factor' because not all of them are going to be 100 percent ripe, and they're not all going to be the same size."

[Continue next page ...](#)

Another technological trend in agriculture is to use broadband and wireless networks displaying maps, highlighted with different colored dots — much like push pins on paper maps — to show where specific crops are grown. These aid vegetable seed producers to avoid cross pollination in plants pollinated by bees, Nolte says, producing a map of Yuma County on his computer screen, marked with various colored dots.



Ag Trends

Kurt Nolte and Leon Farr watch Lisa Bevington control the drone

- “Each field needs to be separated by a two-mile radius,” Nolte says. “The whole business of producing vegetable seeds is to keep the bees from going from one field to the next. To do that means that the seed companies that are in town — roughly 15 — are all growing different types of seed crops. They have to somehow communicate. So this mapping system that we developed is a way for all the growers to see where each other’s fields are, and at the same time, they can put in these little pins, as we call them, remotely. This is all driven by Google maps, it’s free, and a grower can get the password that we provide.”
- They also can look at the map on their cell phone and insert their own “pins” or they can email the link to their main headquarters in California or all over the world, Nolte explains. “And all that is driven by broadband and wireless. So although ag is growing crops in a field, the trend now is to become more and more in touch with the Internet, the Cloud, big data, how do you manage it and how do you communicate all that information through the Internet.”
- Economic factors and consumer demand have influenced other trends in agriculture besides advanced technology. Consequently, you can expect to see more automation, more value-added commodities, more shifts in the kinds of crops grown and in water conservation, more biological approaches to farming, more advances in food safety and more youth engaged in agriculture.
- Brierley says that the short supply of ag labor is “about to become an epidemic, especially if the economy heats up and other industries hire more immigrant labor.”
- Nolte says that the trend toward more automation began with an ag labor shortage during the housing boom about 10 years ago in Yuma County. As field workers found other employment opportunities outside agriculture, thinning machines began doing the work of former field workers, who formerly used hand tools to remove unsuitable lettuce plants to space plants apart.

"It wasn't the industry trying to get rid of or diminish the field worker capacity," Nolte explains. "It was the lack of field workers that drove that to begin with. We're going to see more and more automated machines — not as a result of that, but the technology is becoming much more robust. It's easier to use; it's more grower-friendly; it's better suited for outdoor environments. So we're going to see more and more automated vegetable production and automated harvest."

The value-added trend in agriculture changes raw agricultural products into new forms through packaging, processing, cooling, drying, extracting or any other process that differentiates the product from the raw commodity, says Melissa Mathewson in an online article from Oregon State University's Small Farms division. (www.smallfarms.oregonstate.edu, Summer 2007)

"Some producers work hard to do more than just produce a commodity," says Brierley. "By adding value to their product and differentiating it, they can capture more of the retail food dollar than normal."

Because working families have less time to prepare healthy home-cooked meals, the trend toward value-added commodities such as bagged salads or pre-packaged, minimally processed food types is likely to continue to grow, Nolte says.

"We're also seeing more and more micro-greens," says Nolte, although not so much in Yuma County. "They're grown in soil and actually harvested like an extremely baby plant — not even a true leaf. You've got baby leaf spinach that you may see in the field that's harvested by machines on very wide beds." Some micro-greens, grown in trays in greenhouses, are cut with a scissors-like device. "It's linked to that value-added sort of commodity that a lot of folks are excited about."

Locally, Nolte says that one of the trends seen during the last five to 10 years is the type of lettuce that is grown here as a result of consumer demand.

"We're the epicenter for the leafy green production," he says. "You may already have noticed in the grocery store there is a tendency for consumers to buy more romaine and leaf lettuce than head or iceberg. The consumers here are dictating what the producers here are growing. So we're seeing more and more of the romaine and leaf lettuce and fewer acres of head lettuce. I think consumer demand for nutrition is driving that. That's a big trend that we've noticed for a long period of time, and it's evident today. We have head lettuce and leaf lettuce in Yuma County about neck and neck in terms of acreage. If you go back in time and you look at the lettuce acreage back 30 years ago, iceberg lettuce was by far the leading lettuce we had growing in Yuma County."

Continue next page ...

While technology and consumer demand greatly influence agriculture, the limitations of water and arable land continue to affect the outcome of current trends. Urban development has claimed some of the farm land, but limitations on water supplies — whether created by drought or government regulations — could have a profound effect.

One trend here that relates to water shortages involves extending the growing season, which a number of lettuce growers are considering if they have not already begun. This trend, however, is not without its own challenges.



Ag Trends

UAV's was the topic of this class.

"The trend here because of the lingering issues with California is to make the season longer, which creates all kinds of demands on the cropping systems that we have," Nolte says. "Say you plant lettuce in August. Is the plant going to prematurely flower? Are we going to have a longer period of insects because of the heat? As we get further into, say, April — or I've seen growing cabbage in May — that's hot. Are the plants adapted to those environments that they are normally not grown in? So at the same time, we are going to have to deal with some challenges that we normally don't deal with."

Nolte says that we've seen a huge trend toward greater efficiency for as long as agriculture has been part of our lives.

"The last hundred years here in Yuma, growers have become more and more efficient," he says. "The trend is to try to be as efficient as we can and to produce more crops with the water supply that we currently have."

A relatively new trend begun within the last two or three years — the use of biologics — involves using biological pest and disease managements as opposed to chemical managements to protect and improve plant growth.

"There is more of a trend now to identify actual living organisms that symbiotically live with the plant to put the plant into a better environment for suitable growth," Nolte says. "At the farm down at the (Ag Extension) center, we've been getting a lot more interest in exploring these biological materials that we put into the soil to make these roots to grow better. A lot of times it's 'snake oil' — I have to admit that — but sometimes it actually does work."

Another trend that might seem a "Mission Impossible" involves food safety. Even here, military and defense corporations have technology that could play a key role, Brierley says. In fact, the Yuma Center of Excellence for Desert Agriculture is exploring partnerships with companies such as Raytheon Missile Systems of Tucson to apply their advanced technologies to agriculture.

[Continue next page ...](#)

Brierley says that a related trend is for marketplace competitors to join forces to fund “entities like the Leafy Greens Marketing Agreement, the Center for Produce Safety, and the Yuma Center of Excellence for Desert Agriculture to proactively move the industry ahead in food safety efforts.

“Food safety is a focus of the produce industry because their product is packed in the field and sold fresh, and thus cannot be pasteurized,” Brierley says. “Huge efforts go into identifying and eliminating possible sources of contamination, but tests to verify contamination take time. The ultimate solution would be real-time detection of pathogens on the crop during harvest so that contaminants can be kept out of the food chain. We are exploring military technology such as that used to detect anthrax to see if it could be applied to this purpose.”

Finally, a generational transformation — a trend toward a younger generation taking over the main practice of agricultural production — is emerging as an older generation leaves the industry. In fact, Jim A. Carroll, a futurist consultant and frequent keynote speaker for major corporations, calls this transformation “the biggest trend occurring in agriculture today.” (www.jimcarroll.com)

This trend is especially evident in Yuma County, says Nolte, who teaches agriculture academic programs at the UofA, where he says he has seen his class sizes almost triple in the last eight years.

“It’s a new era that we are in in Yuma County, and that is youth. I’ve taught classes here where I’ve had 10 or 12 students,” Nolte says. “Now I have over 35. It’s an incredible influx of interest in ag in a younger crowd. They are driven to that because of technology, retirement, turnover and opportunity, basically. When I started the technology thing in my program, it was very difficult to get a lot of the generational growers to embrace some of that. And these younger kids that are coming into the program – it’s part of their norm. So when I say, ‘We’re going to fly a UAV with an iPad,’ it’s like, ‘Why are we not flying it with an iPad, Kurt?’ They expect to see technology because they are immersed in it all the time. They have great ideas. They’re very innovative. They’re young, they’re energetic, very enthusiastic. We are seeing more and more of the young crowd getting involved in it.”

Whether in agricultural research, in production or in commercial fields, the generational transformation is not limited by gender. Nolte says that women can do these things just as effectively as men.

“It’s a pretty neat era that we’re in,” says Nolte. “I think these young kids that are in their 20s, running a million-dollar operation with tutelage of their parents or whoever that is, is a pretty monumental thing. I think the ag community is embracing that change. It’s kind of neat to see, and I like it.”

