

# me Stratford Star

75 cents

Published for over 100 years in Stratford, Sherman County, Texas 79084 usps 523

Number 6 February 9, 2017



# **Hanna Signs Letter of Intent**

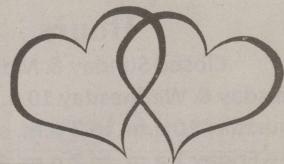
Parker Hanna signs a letter of intent on Thursday, February 2, 2017 to play football at West Texas A&M in Canyon, Texas. Shown above with Parker are his parents Gwenda & PJ Hanna. Congratulations to Parker.

Invite your favorite Valentine and join us for an intimate evening of wine, hors d'oeuvres, and dancing to the music of Patrick Swindell and Pizzazz!

Saturday, February 11th at 7:00 p.m. at The Imagination Station

\$100/couple Call Andy at 753-7262 for

tickets!



# Obituary

R. Howard Naugle November 4, 1953 - February 7, 2017

Full obit in next week's edition
R. Howard Naugle, 63 of Stratford, passed away on Tuesday, February 7,
2017. Memorial Services will be held at 1:30 in the afternoon on Friday,
February 10, 2017 at First Christian Church with Rev. Steve Ulrey, pastor
of First United Methodist Church, officiating. Private family burial will be

held in Stratford Cemetery. Arrangements are entrusted to Morrison Funeral Directors. The family will be at 1001 N Chestnut in Stratford On Wednesday and Thursday after 6 p.m.

# CHIROPRACTOR CHANGING DAYS IN STRATFORD\*\*

Beginning March 1<sup>st</sup> Dr. Ian Kelly DC, will be open in Stratford on Wednesdays instead of Fridays. Dr. Kelly appreciates the community's school spirit and the change of days will keep him from conflicting with sports schedules. To make an appointment you can still call 806.337.2084 (if no one answers leave a message & we'll call you back). Don't forget that Dr. Kelly is also certified in Animal Chiropractic through Parker University, appointments must be made at least 24 hours in advance. *No pets in the office please*.

# TEXAS PROUD.



### STEPHANIE VASQUEZ

Stephanie is the 17 year old daughter of Miguel and Cristina Vasquez. She is the Big Blue Band Drum Major, the treasurer of National Honor Society and plans to attend Amarillo College upon graduation to major in nursing.



### RUSSELL SPURLOCK

Russell is the 18 year old son of Brent and Laurie Spurlock. He plans to attend WTAMU in the upcoming year to major in Ag Business. Russell has enjoyed being a part of athletics as well as the UIL Academic Accounting Team.

# Congratulations to our Stratford High School Students of the Month!

Texas Farm Bureau Insurance is proud to recognize these students who have been selected by the SHS faculty based on outstanding academics, extracurricular activities, service, citizenship and leadership skills. Great job, students! Keep up the good work!

SHERMAN COUNTY

Kaci McBryde, Agent Leonda Fedric, Agent

806.396.5538



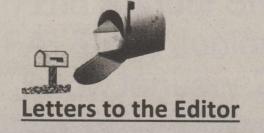
TEXAS
FARM
BUREAU
INSURANCE
AUTO / HOME / LIFE

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#### SAVE THE DATE: St. Joseph's Catholic Church **ANNUAL SAUSAGE DINNER**

Sun. February 26th, 2017 At the Sherman County Barn From 11:00am - 2:00pm Adults: \$8.00 & Children (5-12): \$5.00 Children 4 & under eat free!! Sausage (reg. & spicy) by the lb. will be available: cooked & uncooked Call for pre-orders to:

Jasmin Rios:(806)339-4842- habla español Annie Duran: (806)268-3822- habla español Heather Braden: (806)366-3224



A Letter to the Editor, Citizens of Stratford and especially the Stratford Volunteer Fire Department:

On Sunday last, while trying to burn some tumble weeds (a situation I thought I had under control) things got out of hand. The Police, Sheriff, EMTs and Stratford Volunteer Fire Department responded within minutes, and something that could have been a real disaster for me (and maybe even some neighbors) was turned into only a minor inconvenience. The grass, trees, fence etc. are replaceable. I appreciate everyone who responded, and I wish I knew all your names-but let me just say "THANK YOU", and that seems hardly enough. I am grateful to my neighbors and friends who were there to offer help and condolences. Stratford is a great place to live.

Ann Wells and Teresa Wells

#### SCOT HALL ACTIVITIES Men's Pool-daily 1 p.m. M-F

Thank you Stratford

The Ministerial alliance would like to say a great big thank you to each one

that gave to the Good Samaritan

fund over the last two months. Your

response has been overwhelming. The fund is in great shape and we

will be able to help some of our

elderly for a while. God bless each of

you, your giving has not gone

**Kevin Anderson** 

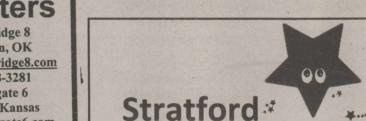
unnoticed.

Ladies Mexican Train Dominoes-Mondays 1:30 p.m.

Ladies Chair Exercises-M-W-F

10:00 -10:30 a.m. Ladies Yoga-Tuesdays 8:15-10:00 a.m.

Monthly Luncheon-4th Thursday-12 noon (covered dish luncheon)



Appreciates your **Patronage** 

# Biddy's on Main Hours

**Closed Sunday & Monday** Tuesday & Wednesday 10 a.m. to 2 p.m. Thursday 10 a.m. to 2 p.m. and 5-8 p.m. Friday 7 a.m. to 2 p.m. 5-8 p.m. Saturday 11 a.m.to 2 p.m. and 5-8 p.m.

# Mitchell **Theaters**

Northridge 8 Guymon, OK www.northridge8.com 580-338-3281 Southgate 6 Liberal, Kansas www.southgate6.com 620-624-5573 Garden City, Kansas www.sequoyah8.com 620-275-2760



## Attention to all subscribers!! Rate change

The Stratford Star is no longer sending out notices when your paper is due. Check the label on the paper and see what month your subscription expires. I will be putting "Stars" on the current month" If you have a Star on your label it means that your sub expires that month. If you are not sure the amount you owe if you live out of the area call 753-7373 and double check. Locally is \$33.00 and out of the area \$40.00. If you are paying for someone else's sub, you will be billed for that person. The Stratford Star, PO Box 8, Stratford, TX 79084 Thanks-Marty

The Stratford Star (USPS 523-108) Published for over 100 years 805 Purnell Stratford, TX 79084 Telephone: 806-366-5885 Fax: 806-366-5884 E-Mail: stardm@xit.net The Stratford Star is published weekly Editor & Publisher Martha Robertson Advertising & Photographer Shari Hudson Subscription rates \*\$33.00 per year in Sherman & Adjoining counties \$40.00 per year all others \$27.00 per (9 months) College rate The Stratford Star-PO Box 8-Stratford, TX 79084 Periodicals postage paid at Stratford, TX POSTMASTER: Send address changes to Stratford Star, PO Box 8-Stratford, TX 79084

-I. F. Stone

# FINDING A LOST PENSION

How to locate forgotten retirement benefits you may be eligible for

Dear Savvy Senior: What tips and W-2 forms from the years

each employer.

you worked at the company will

saved your old tax returns from

these years, you can get a copy

Social Security Administration,

which will show how much you

were paid each calendar year by

Form SSA-7050, "Request for

Social Security Earnings Infor-

mation," or you can download

it at ssa.gov/online/

information.

ssa-7050.pdf. The SSA

charges a \$136 for this

Some other old

forms that can help

eligibility are summary

Today, millions

of dollars in

benefits are

sitting in

pension plans

across the U.S.

or with the

you prove pension

plan descriptions that

you should have received

from your employer when you

benefit statements that you re-

ceived during your

SEARCH PBGC

employment.

worked there, and any individual

Call 800-772-1213, and ask for

of your earnings record from the

help you here. If you haven't

can you offer for tracking down a lost pension from a previous employer?

- About to Retire

Dear About: It's not unusual for a worker to lose track of a pension benefit. Perhaps you left an employer long ago and forgot that you left behind a pension. Or maybe you worked for a company that changed owners or went belly up many years ago, and you figured the

pension went with it. Today, millions of dollars in benefits are sitting in pension plans across the U.S. or with the Pension Benefit Guaranty Corporation (PBGC), a federal government agency, waiting to be claimed by their rightful owners. The average unclaimed benefit with PBGC is about \$6,500.

To help you look for a pension, here are some steps to take and some free resources that can help you search if your previous employer has gone out of business, relocated, changed owners or merged with another firm.

may need to show proof that you

once worked for the company

#### If your former employer went out

of business or if the company still is in business but termi-CONTACT EMPLOYER nated its pension If you think you have a pension plan, check with the and the company you worked for PBGC, which guarstill is in business, your first step antees pension payis to call the human resources deouts to private-secpartment and ask how to contact tor workers if their the pension plan administrator. pension plans fail, Ask the administrator whether up to annual limits. you have a pension, how much Most people receive it is worth and how to claim it. the full benefit Depending on how complete the administrator's records are you

**Pension Benefit** Guaranty Corporation" they earned before the plan was terminated. The PBGC offers an online pension-search directory

tool at search.pbgc.gov/mp/

#### **GET HELP**

If you need help tracking down your former company because it may have moved, changed owners or merged with another firm, contact the Pension Rights Center, a nonprofit

consumer organization that offers seven free Pension Counseling and Information Projects around the U.S. that serve 30 states. For more information, visit pensionrights. org or call 888-420-6550.

If you, your company or your pension plan happens to be outside the 30-state area served by the projects, or if you're trying to locate a federal or military pension, use Pension Help America at pensionhelp.org. This resource can connect you with government agencies and private

> organizations that provide free information and assistance to help your search.

For more pension searching tips, see the PBGC's free online publication called "Finding a Lost Pension" at pbgc. gov/documents/ finding-a-lostpension.pdf.

Send your senior questions to: Savvy Senior, P.O. Box 5443, Norman, OK

73070, or visit SavvySenior.org. Jim Miller is a contributor to the NBC Today show and author of "The Savvy Senior" book.

#### When you are younger you get blamed for crimes you never committed and when you're older you begin to get credit for virtues you never possessed. It evens itself out.



Muscles in the human body (640 in total) make up about half of the body's



It's estimated that the average person will burn one hundred calories in just fourteen minutes of tennis.



L to R: Sydnee Pottratz, Jaci Brown, Natalia Niave, Tucker Summers, Daisy Ruiz, Itzel Botello, Courtney Griffin, Juan Gonzales

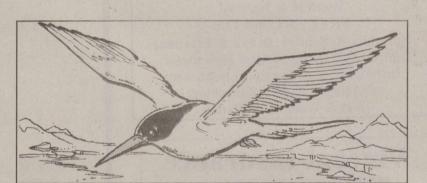
# New Addition to SHS LIBRARY!

The Ag. Dept. of Stratford High School designed and built this piece for the Library. Pictured above are some of the students who worked on the project. Thanks to Kendra Martin and Kaleb Horsford for your role as educators.

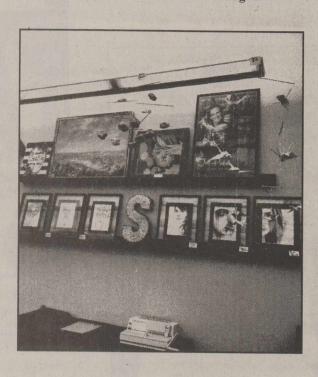
The Library

has had a facelift as well as an update to the collection. This Library Media Center serves 5<sup>th</sup> - 12th grade. It is a wonderful learning space that encourages reading, provides access to multi-media resources, as well as space for students to work on hands-on projects. It is also a location that displays artwork and projects by our own students! Feel free to stop by and check out the Library!

By Deide Zieman



The Arctic tern's migration route spans 22,000 miles round-trip. It flies from the Antarctic Ocean to the Arctic Ocean each year.



# What's Happening-In Stratford

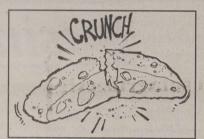
Jazz Band-Feb. 11<sup>th</sup> Imagination Station

Mother/Daughter Brunch Under the Sea (Ariel) Imagination Station March 4th

Story Time @Sherman County Library, Wednesdays, 9 to 9:30 a.m. February 2 - March 8

Storm Siren testing on Wednesdays at 12 noon

Scot Hall Activities-(Listed elsewhere in paper)



The name biscotti is a generic term applied to various types of Italian cookies that are baked twice. This results in a very crunchy cookie.



A ton of new \$20 bills would be worth about \$19.6 million dollars.

# The Churches of Stratford Welcome You

First Assembly of God Kevin Anderson, Pastor 921 Fulton Sunday School 9:45 a.m. Morning Worship 10:45 a.m. Evening Worship 6:00 p.m. Wed. Bible Study 6:30 p.m.

First Christian Church
5<sup>th</sup> & Main
Sunday School 9:45 a.m. (nursery)
Morning Worship 10:45 a.m. (nursery)
No Sunday evening Worship Service

First United Methodist
Rev. Steve Ulrey 396-2178
520 N. Main
Sunday School 9:20 a.m.
Morning Worship 10:30 a.m.
Junior & Senior High UMY 6:00 p.m.

St. Joseph Catholic Church
6th & Pearl
Rectory 366-5687
Sunday morning 8:00 a.m. (English) 9:30 (Spanish)
Sacrament of Reconciliation Before Mass or t.
Christian Formation Classes K-6 Grade Wed. Afternoon
Jr. & Sr. High. Wed. 6:30-8:30 p.m.

First Baptist Church
Pastor Ron Whitt
702 N. 3<sup>rd</sup>
Sun.-Coffee 8:30 a.m.
Sunday School 9:30 a.m.
Worship Service 10:30 a.m.
Wed. Children 6 p.m. youth 7 p.m.

Heritage Bible Baptist
Pastor Mark Looney
302 S. Main
For more info-call 396-2212
Morning worship 11:00 a.m.
Evening Service 6 p.m.
Thurs. Service 7:00 p.m.

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Stratford Grain 396-5541

Lautz 769-5541

**Stratford Star** 

366-5885

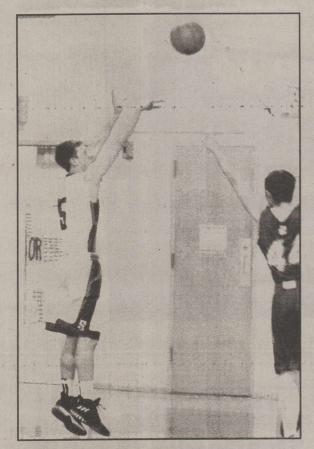
La Mision Bautista
Mision Bautista
401 S. Wall 396-5376
Domingo (Sunday)
Estuela Dominical 9:45 a.m.
Miercoles (Wednesday)
Servicio De Adoration 11 a.m. Estudio
Biblico & Servicio De Oraction 6 p.m.
Servicio De Adoration 6 p.m. se Cuidamos
Susuinos Durante El Servicio

Eben-Ezer Templo Hispano
Asambleas De Dios
Pastor: Juan M. Valenzuela
806-366-3071
205 N. Poplar-Hwy 287 268-2188
Escuela Dominical 10 a.m. - 12 noon
Servicio De Adoracion 5 p.m.-7 p.m.
Miercoles: Servicio De Adoracion 6-8 p.m.

Kerrick Community
Pastor Roy Harris
Community Building
10 a.m. Worship Service

Church of Christ
Raymond Glendinning
N. 3<sup>rd</sup> & Chestnut
Sunday School 9:30 a.m.
Morning Worship 10:30 a.m.
Evening Worship 5:00 p.m.
Wednesday Bible Study 7:00 p.m.

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Stratford Elk Kade McBryde shoots the three point shot in Elks 75-52 win over Sunray on Tuesday, January 31, 2017.



Lady Elk Carlee Metcalf looks inside for open teammate in the Lady Elks win against Sunray.



OSERS

Lady Elk Allie James scores under the basket in their 81-29 win over Sunray on Tuesday, January 31, 2017.

Russell Spurlock scores under the basket for the Elks in their win over Sunray.

# Basketball

# **Business Directory**

PO Box 510 Stratford, TX 79084 Phone: 806-366-5557

### **Duncan Chevrolet**

www.duncanchevrolet.com E-mail-duncanch@xit.net AN AMERICAN REVOLUTION

# Stratford Auto Electric

806-366-5941
saeroymc@gmail.com
Altronics, starters, Alternators,
ACmotors
New & Rebuilt
Full Line Available

# Stratford Grain Company

Stratford 396-5541 Lautz 769-4485



4 North Main

### A & I Parts Center

Automotive and Industrial Parts 201 N. 2<sup>nd</sup> Street-Stratford, TX 79084

> Tel: (806) 366-5592 \*Toll-free 800-624-5494 Fax: (806) 366-2583

## Structured Touch Massage Therapy Clinic

Cece Yelek, CMT, LMT 401 N. Third #11. or 7199 Co. Rd P Stratford, TX - Sunray, TX Office 806-366-ahhh (2444) Cell 806-290-3655

Open 9-5 by Appointment Only

Koester Welding & Irrigation 806 Cherry Avenue; Dalhart, TX 79022 ZAKOESTER@GMAIL.COM

806-333-8354

Bonded & Insured FREE ESTIMATES

Sprinkler Relocation, Repair & Erection;
Portable Welding Service; Flow Meter
Installation; Cooling Coils; Implement
Welding & Repair; Trenching;
Gas & Water Leak Repair

# Vincent Insurance Agency Sabrina Melton

PO Box 739 Office: 806-396-2456 Stratford, TX 79084 Home: 396-2512 Email: vinccins@xit.net



### DAVIS GEOMATICS, LLC

J.D. Davis
R.P.L.S., L.S.L.S., CFedS
Licensed State Land Surveyor
Certified Federal Surveyor

COLORADO - KANSAS - OKLAHOMA - TEXAS
Office: 806-374-4334 • Cell: 806-336-0564 • Fax: 806-359-0686
Toll Free: 866-570-0169 • www.geopro.us • e-mail: jdavis@geopro.us
P.O. Box 4061 • Amarillo, Texas 79116-4061
Firm No. 100828-00

### Albert's Manor House Restaurant



Daily Specials
Friday Night
Fish Buffet
Sunday Buffet
Breakfast All Day

Open-6 a.m. – 9 p.m. Everyday <u>TAKE-OUTS WELCOME</u> 1817 Dumas Ave Dumas, TX 935-5507



Clements Insurance
Home • Auto • Life

Farm & Ranch • Commercial

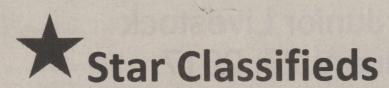
Gary Clements

621 Peters Avenue

INSURANCE

Dalhart, TX 79022

205 N Main Stratford, TX 79084 Cell: 806 346-5217 gclements@farmersagent.com



Phone 366-5885 ... The Best Salesperson Around

### House for Sale



REDUCED PRICE
2 living areas, 3 bedroom, 1.75
bath, fireplace, nice yard, approx.
2,000 sq.ft 1313 N. Chestnut St.
Call Steve or Linda Haynes
806-366-2478 or 789-7956
5-2 tfn

701 Purnell in Stratford 3 bdrms, 1.75 bath 2690 sq. ft. brick. Features 3 lg. bedrooms with large closets. Walking distance to both schools.FMI call 620-424-7282 or 806-930-6875

Spacious 2100 sq ft. 3bedrom, 2.5 baths, 2 living areas, attached 2 car garage with covered driveway. Large backyard with metal fence on large corner lot. New heating- an AC unit, updated bathrooms, gas/wood burning fireplace. \$146,900 320 N. Wall . For more information please call: 806-930-6575 or 806-930-6725

**Sutton Estate Sale** 1009 N. Chestnut Stratford, TX Saturday, Feb. 11 From 9a.m.-3p.m. Featured items: Washer and dryer, refrigerator, couch, rockers, full size bed, queen sized bed, dressers, nightstands, dining room table, buffet, curio cabinets, beautiful lamps, tools, **International Harvester Vintage** freezer, camping gear, Christmas items, vintage Tupperware, wonderful glassware, records, jewelry, American Fostoria and so much more! We accept debit/credit cards!' By two Sisters **Estate Sales** 

# WANTED Looking for work Call 806-390-9419 Lane Robertson

#### Help Wanted

Now accepting bids for turnkey siding and roofing work to be performed on Jocko Pulliam's home at 405 South Pearl. Please contact BR Pulliam at bee46@yahoo.com or 505-980-8346 for details and/or bid submissions.

Coldwater Manor in Stratford, Texas is looking for experienced RN's, LVN's and

CNA's. If interested please come by 1111 Beaver Road for an application or send your resume to dgross@shdistrict.comEOE

Coldwater Manor in Stratford, Texas is now accepting applications for a person to

work in the Dietary Department

and Housekeeping. If

interested come by 1111

Beaver Road Stratford, TX foran application. EOE



Texas Electric Co.

301 North Poplar PO Box 1123 Stratford,Texas

79084

806-396-2300 806-679-9007

Office Chuck's Cell www.reinke.com

# Legal Notice

#### **INVITATION FOR BIDS**

Sealed proposals addressed to the Honorable Mayor and City Council of the City of Texhoma, Texas for the construction of approximately 3,000 linear feet of six-inch water line and all associated appurtenances entitled:

WATER DISTRIBUTION SYSTEM IMPROVEMENTS TEXAS COMMUNITY DEVELOPMENT PROGRAM PROJECT TDA PROJECT NO. 7216449

will be received at the office of the City Secretary at City Hall, South 6th Street, Texhoma, Texas until:

11:00A.M. February 28, 2017

A cashier's check, certified check or acceptable bidder's bond, payable to the City of Texhoma in an amount equal to not less than five percent of the bid submitted, must accompany each bid as guarantee that, if awarded the contract, the Bidder will, within fifteen days after receipt of Contract Documents, enter into a contract with the City of Texhoma and will execute bonds On the forms provided in the Contract Documents. Any bid received after the time and date listed above will be returned unopened and will not be considered.

Attention is called to the fact that not less than the federally determined prevailing (Davis-Bacon and Related Acts) wage rate, as issued by the Texas Department of Agriculture and contained in the contract documents, must be paid on this project. In addition, the successful bidder must ensure that employees and applicants for employment are not discriminated against because of race, color, religion, sex, age, or national origin.

Bidders are expected to inspect the site of the work and inform themselves regarding all local conditions. Contract Documents are on file and may be examined in the office of the City of Texhoma, South 6th Street, Texhoma, Texas, telephone (806) 827-7411 and the offices of Brandt Engineers, Consulting

Engineers, 4537 Canyon Drive, Amarillo, Texas 79110, telephone (806) 353-7233.

Plans and Specifications may be obtained from the Engineers, Brandt Engineers, 4537 Canyon Drive, Amarillo, Texas 79110, phone (806) 353-7233 in the following manner:

Cost: Seventy five dollars (\$75.00), non-refundable, for each set of paper plans and specifications or fifty dollars (\$50.00), non-refundable, for each set of digital plans and specifications on CD.

Performance and Payment bonds shall be set forth in the Contract Documents.

The Owner reserves the right to reject any or all bids and to waive any informalities in the bidding. In case of ambiguity or lack of clearness, the Owner reserves the right to adopt such interpretations as may be most advantageous or to reject the bid as informal. No bid may be withdrawn until the expiration of 60 days from the bid opening date.

Published in The Stratford Star, Thursday, February 9, 2017 and Thursday, February 16, 2017

#### NOTICE OF AUCTION

Sherman County is having an online auction pursuant to Local Government Code §263.152 to dispose of surplus property. Vehicles, equipment, office furniture and miscellaneous items are included in the auction. Items can be viewed at www.renebates.com.

The auction will open for bidding February 20, 2017 and close March 7, 2017 beginning at 10:00 a.m. Please see www.renebates.com or call 972-548-9636 for more information.

Published in The Stratford Star, Thursday, February 9, 2017

## World War 1 Centennial

We are approaching the Centennial of our entrance into WW 1. On April 6, 1917 The United States officially entered this war. For families with ties to Sherman County: Historical Commission would like to honor anyone who had a family member that served in this memorable war.

If you have the name of a family member, neighbor or friend who served please get names, stories and/or pictures to:

Ann Pronger Wells
C/O Sherman County
Historical Commission
PO Box 809
Stratford, TX 79084
annpwells@yahoo.com

806-396-2527

Questions and comments welcome

# **Stratford Hospital District**

"Proudly serving the medical needs of Stratford and Sherman County"

Stratford Family Medical Clinic

#### **Stratford Family Medical Clinic**

Mon. – Thurs 8 a.m. – 5 p.m. Fri, 8 a.m. – 3 p.m. 396-5583 Tommy Brian, ANP & Krista Brown ANP

#### Elk Pharmacy

Mon.-Fri. 9 a.m. – 5:30 PM
"Check our Competitive pricing"
"Compounding Available"
366-5505 Shelly Worley, PharmD,RPH

Coldwater Manor Nursing Facility
396-5568 Mark Moore, LNFA

#### **Stratford EMS**

9-1-1 or 396-2844 Jimmy Lanning, Director

The Stratford Hospital District operates on a non-discriminatory basis, giving equal treatment and access to services without regard to sex, race, religion, age or ethnicity.

Remember The Stratford Star Classifieds Call 366-5885 or Email to stardm@xit.net or mail to PO Box 8 Stratford, TX 79084-Thank you

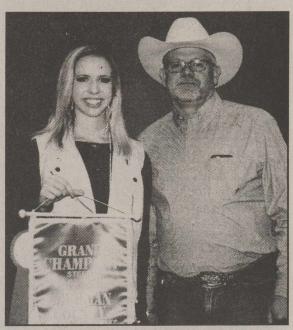
# 2017-72nd Annual Sherman County FFA & 4-H Junior Livestock ShowJanuary 28, 2017



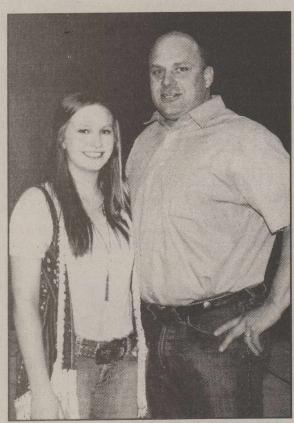
Abby Law Winner of Grand Champion Lambbuyer Green Country and Wesley & Cindy Miller



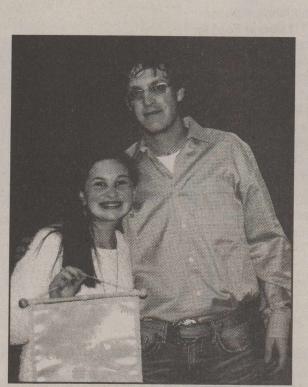
Holly Sladek winner of the Grand Champion Goat-Buyer Bain Tire Company



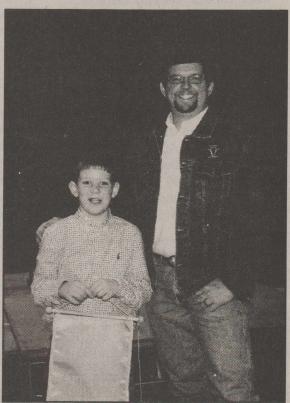
Allie James winner of the Grand Champion Steer-**Buyer Channel Seed** 



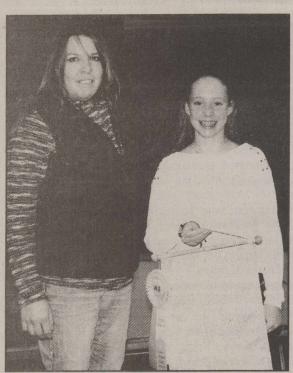
Katelin Berry winner of Grand Champion Heifer -buyer Hog Slat Inc.



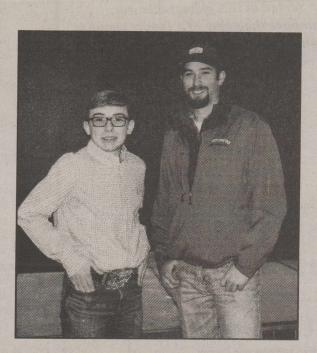
Klaire Walden-Winner of Reserve Champion Pig-Buyer Skiles Farms.



Cole Hinds-Winner of Reserve Grand Lamb-**Buyer Coronado Feeders** 



Oliva Merry winner of Reserve Grand Champion Goat -buyer Green Country



Rhett Rousser winner of Reserve Grand Champion Steer- buyer B & D Ag



Turner Smith winner of Reserve Grand Champion Heifer- Buyer Coronado Feedyards

# New wheat streak mosaic virus resistance genetic markers developed

Advancement made in battle of major disease in the Great Plains

Writer: Kay Ledbetter, 806-677-5608, skledbetterag.tamu.e.0 Contact: Dr. Shuyu Liu, 806-677-5600, SLivag.tamu.edu Dr. Chor Tee Tan, 806-677-5600, chor tee.tanag.tamu.edu AMARILLO - The Wsm2 gene is located on chromosome 313S in wheat and most recently eight tightly linked flanking markers have been identified and mapped. To most, that means very little. To Texas A&M AgriLife Research geneticists and breeders, it's the key to battling one of the most important biotic stresses affecting wheat. Dr. Shuyu Liu, AgriLife Research small grains geneticist in Amarillo, and his team recently published two articles, "Saturated Genetic Mapping of Wheat Streak Mosaic Virus Resistance Gene Wsm2 in Wheat" and "Development and Validation of KASP Markers for Wheat Streak Mosaic Virus Resistance Gene Wsm2," in the Crop Science journal. In both articles, Liu and his collaborators outlined, how wheat streak mosaic virus, also known as WSMV, is a major threat to wheat production in the Great Plains, one of the largest wheat regions in the nation, Liu said. While the threat may not be as high as it is in the U.S., the virus has been found in all major wheat-growing regions of the world.

There is no effective chemical treatment available for the disease, he said. Host resistance is the most cost-effective and environmentally safe approach for combating this disease. "WSMV resistance is an important target trait for our wheat breeding program," said Dr. Jackie Rudd, AgriLife Research wheat breeder in Amarillo. "We have evaluated many diverse sources of genetic resistance over the years, including a wheat breeding line from Colorado State University, C0960293-2, known to have good resistance."

Rudd and the AgriLife Research wheat team began crossing with the Colorado line in 2005 and by 2011 had identified and mapped WSMV resistance on chromosome 3BS and named the gene Wsm2.

Liu said wheat breeding programs worldwide now rely on two primary sources of resistance, Wsm2 - identified in the early 1990s from a wheatgrass, and the Wsm2 from bread wheat, for development of WSMV-resistant wheat cultivars. Effective molecular markers closely linked to the target genes are the key for the success of marker-assisted selection on traits such as WSMV resistance, he said. Among the

available markers, single nucleotide polymorphisms or SNPs are routinely used in plant breeding programs to distinguish potentially superior genotypes with genetic merit for traits of

His genetic team has identified eight SNPs flanking Wsm2, Liu said. This helps increase the efficiency in selection for the resistance needed to battle the virus.

"A single marker linked to target genes may not be sufficient to screen across diverse genetic backgrounds," Liu said. "Therefore, a set of tightly linked markers on each side of the gene is the best predictor for Wsm2 with higher accuracy." These tightly linked SNPs will be useful for marker-assisted selection for WSMV resistance, he said.

Dr. Chor Tee Tan, an associate research scientist in Amarillo, has been able to carry the AgriLife Research work one step further. Working in the wheat genetic program for almost four years, he led the effort to develop breeder-friendly Kompetitive Allele Specific Polymerase Chain Reaction or KASP assays for those SNPs tightly linked to Wsm2 and validated

If a breeder is screening 1,000s of breeding lines, as is typical, the KASP acts as a flag to say the necessary sequence for wheat streak mosaic virus resistance exists in a particular line of wheat, Tan said.

"These KASIP SNTs were tested on a panel of nine wheat breeding and mapping populations with diverse genetic backgrounds and were found to be very effective in differentiating resistant and susceptible genotypes for WSMV," he said.

"We have many lines with SSM2 in our breeding pipeline now and these new markers will help us get to the finish line," Rudd said. "Marker technology has greatly improved, and these latest findings are easy to use and very predictable."

Liu said the joint effort from breeders at AgriLife Research, Kansas State University-Hays and Colorado State University, has "made great progress to fight this disease that is not easy to screen by infection."

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Both journal articles can be accessed at http://bit.ly/2kSxobG