

# HUNT COUNTY FAMILY & COMMUNITY HEALTH

MARY SHOCKLEY CEA-FCH

## PROGRAM HIGHLIGHTS

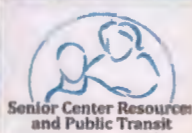


The fall months not only brought some cooler weather to Hunt County but also more educational Family & Community Health programs. In mid-October, County Extension Agent, Mary Shockley coordinated with Texas AgriLife state specialists to offer a "Let's Get Festive" Water Bath Canning Workshop. Canning, drying, and freezing allow you to control your food ingredients and eat healthy year-round. Preserving food reduces food waste, waste in landfills, and our environmental footprint.

If the county offices are interested in receiving this training, please email me!



There were two awesome opportunities for our Hunt County FCH Agent this year at the State Fair of Texas! Pictured above is Mary hosting a live food demonstration in the Go Texas Pavilion spotlighting Beef as the main ingredient. The other opportunity included being a judge at the State 4H Food Challenge Contest!



Pictured below are the results of our Healthy Hunt County Committee's Annual Spice Drive resulting in over 175 ounces of spice collected to serve the Hunt County Meals on Wheels clients. Annual Spice Drive resulting in over 175 ounces of spice collected to serve the Hunt County Meals on Wheels clients.

Throughout the fall months, our FCH Agent hosted multiple one-shot programs to community organizations/groups discussing topics of Memory, Hydration and Water Infusion as well as Native Game meat. Also pictured below is our Agent participating in a Virtual State-Wide training as a guest speaker to share her experience and success with the Healthy School recognized Campus Youth Program.

In partnership with the Hunt County Senior Center Resource & Public Transit, our FCH Agent has completed an 8 week Walk N Talk Series with both the Greenville & Commerce location. Local Seniors learned the ins and outs about foods like Asparagus, Pumpkin, Beans, Blueberries, Lemons & Limes, and Red Onions.



Hunt County Extension Agent-Family & Community Health-Mary Shockley-mary.shockley@ag.tamu.edu



## RELEVANCE

Wheat is the most stable and planted crop in Northeast Texas. Income from winter wheat sales also surpasses that of any other crop in the region. The commercial wheat growers make five crucial decisions in their annual production season including: varietal selection, determination of acceptable stands, fertilizer choices, weed control, and plant disease management. Wheat growers need research based, timely, and locally relevant information to assist them in their decisions. The benefits of this information increases the production, consistency, and profitability of wheat thus benefiting the producer and the local and state economies. There are approximately 200,000 wheat acres planted annually in the 22 counties of Extension District IV according to Farm Service Agency (FSA) county reports.

## RESPONSE

Texas A&M AgriLife Extension Service partnering with producers and other agricultural entities annually conducts applied research trials and outreach programs to generate recommendations and educate wheat producers. These research trials focus on varieties (germplasm) and input management to help provide practical production data to help the grower reduce risk and increase profitability. During the 2022-2023 winter wheat production season fifteen (15) production trials were conducted with results distributed to area producers by mail, email, newsletter, in person, field days, and websites. In the 2022-23 production season a wet fall coupled with Hessian fly, a major pest of wheat; caused decreased planted acres and extensive losses in the Blackland and Central Texas wheat growing areas. Assessing field damage and educating producers on management options and future pest mitigation were a focus of efforts. Field days and producers meetings were hosted at Bardwell, Abbott, Fairlie, and Lindsay TX with approximately 83 producers attending. The Wheat IPM program received \$10,000 in competitive grant funding from the Texas Wheat Producers Board and \$8,010 from Ag. Industry trial support during 2023. Two Ph.D. graduate students are currently working on breeding wheat varieties resistant to Hessian fly and developing other IPM management practices for this important pest.

### 2022-23 Wheat Applied Research and Demonstration Trials in Northeast Texas

<b>Trials (15)</b>	<b>Locations (Town and County)</b>
Soft Red Winter Wheat (SRWW) and Hard Red Winter Wheat (HRWW) Variety and Class Comparison Trials (4)	Fairlie-Hunt, Abbott-Hill; Pilot Point-Denton, and Ennis-Ellis
Fungicide Profitability Study	Fairlie-Hunt
Foliar Rust Fungicide Product Studies (2)	Fairlie-Hunt
Maximum Yield, Input, and Seeding Rate Studies (2)	Fairlie-mpHunt
Annual Ryegrass and Broadleaf Herbicide Studies (3)	Fairlie & Greenville-Hunt
Hessian Fly Resistance Evaluation of Wheat Varieties (3)	Abbott-Hill Co., Hillsburo-Hill Co. and McGregor-McLennan Co.

### PARTNERSHIPS & COLLABORATORS

- Texas A&M University - Commerce
- Texas A&M AgriLife Research
- Texas A&M AgriLife Extension

## VALUE STATEMENT

### Integrated Pest Management (IPM)

The Wheat IPM program provides research based information for producers to make decisions about wheat varieties, fertilizer, crop rotation, weeds, insects, diseases, and the judicious use of the associated crop protection products. This information reduces production risk and increases the return on investment making wheat

Producers at 2023 wheat field days valued the information at \$21.24/acre.

Producers at the Fall 2023 wheat research review meeting valued the information at \$27.40/acre.

Using the wheat acres managed by the 22 wheat producers that responded to surveys this was a direct impact of

**\$400,000**

**More Wheat IPM  
 Information:**

**drdrake@ag.tamu.edu**

<https://hunt.agrilife.org/ipm/>

<http://varietytesting.tamu.edu/>



## AGRONOMIC RESULTS

- A Ph.D. graduate student, Ellen Melson; completed her dissertation on the breeding and genetics of host plant resistance to Hessian fly. Another Ph.D. student, Tyler Mays; also began his graduate work on management of Hessian fly.
- Soft Red Winter Wheat variety trials demonstrated the potential of variety selection to increase production by 16.0 bushels per acre above the average trial yield at Howe, TX and 9.5 bushels at Greenville, TX in 2022.
- In the 2021-22 production season dry fall and winter weather coupled with Hessian fly, a major pest of wheat; caused extensive losses in the Blackland and Central Texas wheat growing areas. Assessing field damage and educating producers on management options and future pest mitigation were a focus of efforts. Extensive efforts were also put into evaluating varieties for host plant resistance. This is the best and most economical way to control Hessian fly. Varieties from 5 locations were evaluated for visual damage and also for the amount of fly pupa per plant as ways of determining resistance. Fly samples were also collected and sent to the USDA lab in Kansas to determine if the genetics of the fly had changed and overcome the resistance genes deployed in the wheat varieties that were being grown in the area. Dr. Drake also currently has a PhD graduate student that is mapping Hessian fly resistance genes to help with breeding wheat varieties that will be resistant or tolerant to the fly.
- The 2021-22 Herbicide trials, with herbicide resistant ryegrass, demonstrated a 31.2 bushel yield difference between the herbicide treated average and plots without weed control. The previous standard treatment for ryegrass prior to weed resistance to that class of herbicide only yielded 4.3 bushels per acre more than the untreated plots. This demonstrated the need to avoid selecting for resistant weeds and using current weed control recommendations.

## ECONOMIC IMPACTS

- Wheat yield trial results in the 2021-22 season showed a yield potential of greater than 93.5 bushels per acre compared to a county average of 50 bushels per acre. At \$7 per bushel and 200,000 wheat acres in District IV this represents a potential gross annual economic difference of \$60.9 million from implementing improved management practices to produce maximum potential yields.
- Producers at wheat field days valued the information at \$33.60/acre. This was an increase from 2021 and possibly a result of a severe Hessian fly infestation year. Producers at the NE TX Ag Technology Conference valued the information for wheat acres at \$21.06/acre. A direct impact of \$411,723 on 19,550 acres. 93.5% of 34 surveyed indicated they definitely will or probably will adopt at least one Extension practice and/or technology recommended.
- 63.2% of 29 surveyed participants at the Cooke Co. Wheat Field Day showed an increase in understanding on how herbicide resistance develops in weeds and 80% of 29 surveyed participants indicating they intend to adopt management recommendations to minimize herbicide resistant weeds.

Hessian fly damaged wheat with a broken stems and a thin stand. On the left a Hessian fly resistant variety.



**FILED FOR RECORD**  
at 12:30 o'clock P M

**NOV 28 2023**

**BECKY LANDRUM**  
County Clerk, Hunt County, Tex.  
By 