

## 2019 Annual Report



**Growing Small Grain Profitability** 

## **KySGGA** Board of Directors

Gary Haile - President

Jeff Coke - Vice President

Mandy Thompson Bryant - Secretary/Treasurer

Kyle Bugg, Graves Co.

Mandy Thompson Bryant, Todd Co.
Gary Haile, Christian Co.
Jeff Coke, Daviess Co.
Sam Halcomb, Simpson/Logan Co.
Daniel Reynolds, Taylor Co.
Stephen Locke, Siemer Milling
At Large

Dr. Robert Houtz – UK Associate Dean for Research and Director of the Kentucky Agricultural Experiment Station

Dr. Dave Van Sanford – UK Wheat Breeder

## **Promotion Council Members**

- Chairman Pat Clements, Springfield
- Vice Chairman Curtis Hancock, Fulton
- Steve Hunt, Herndon
- Bernard Peterson, Loretto
- Steve Ward, Hickman
- Chris Kummer, Franklin
- Joe Paul Mattingly, Raywick

## Fiscal Report (June 1, 2018 to May 31, 2019)

#### **Income**

Net Checkoff Assessments

Interest Income

\$294,854

\$15,110

Total Income

\$309,964

## Fiscal Report (June 1, 2018 to May 31, 2019)

#### **Expenses**

•	Administration	\$27,462
•	Research (additional from reserves)	\$294,497
•	Market Dev. & Promotion	\$21,415
•	Education	\$36,560

Total Expenses



\$379,934

Fiscal Report (June 1, 2017 to May 31, 2018)

#### **End-of-Year Balance**



## 2019 Harvest Review



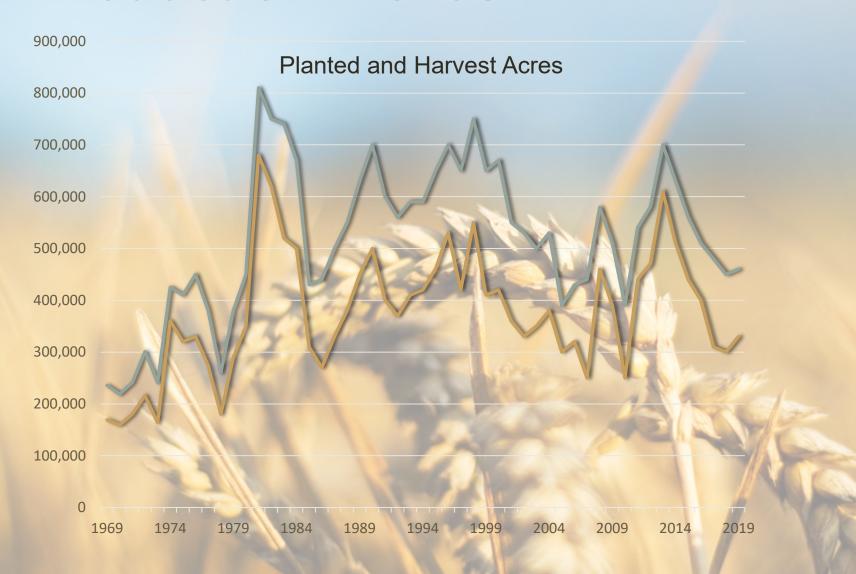
#### **PRODUCTION**

- 25.1 million bushels
- 76 bushels/A
- 330,000 acres harvested

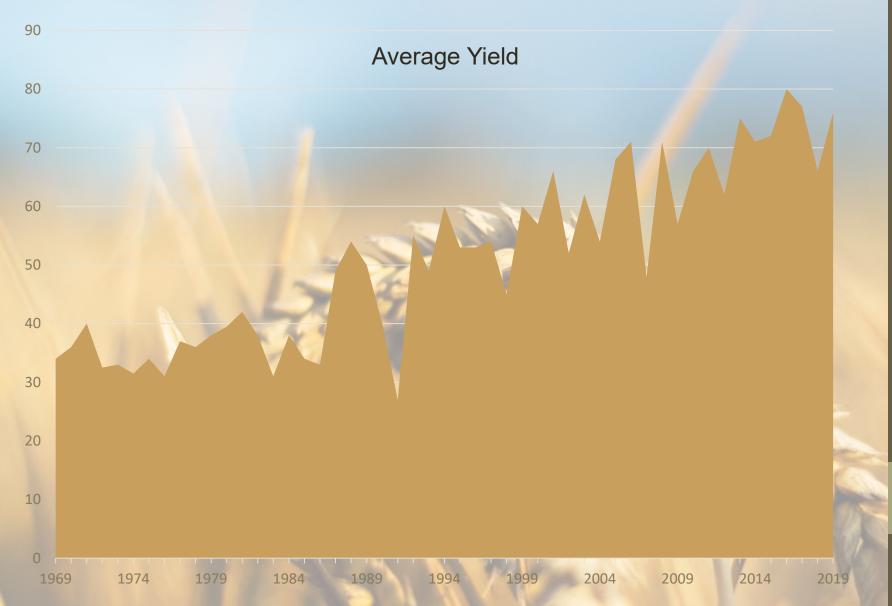
Acres and average yield were increased over 2018 estimates. Rain hampered seeding in 2018, but favorable conditions helped the crop finish well.

- David Knopf, NASS Director

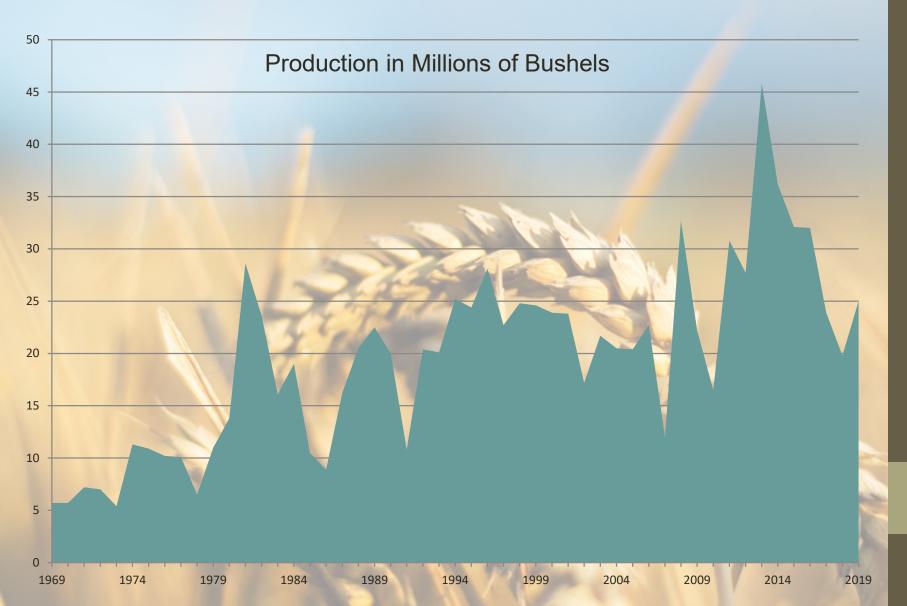
## **Production Trends**



## **Production Trends**



## **Production Trends**



## Research

- 2019 funding \$294,497
- All results from 2018/2019 projects can be found at www.kysmallgrains.org







## Research Report: Wheat Breeding Project

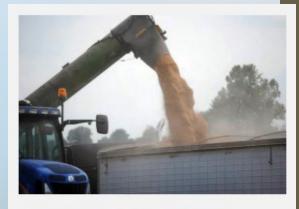
Crossing: We produced a total of 550 crosses in the greenhouse this season. We made both single cross hybrids between 2 parental lines (138) and 3-way crosses (412) where the hybrid is crossed to a third parent.



#### Market Demand and Production Cost Estimates for Specialty Small Grains in Kentucky

Specialty small grains (e.g., cereal rye, hard red winter wheat, and malting barley) are a vital input into products like artisan bread, craft beer, and bourbon. Therefore, there are potential opportunities for Kentucky farmers to supply various specialty small grains to support the expansion in these markets.

Oct 1, 2019



2019 Kentucky Small Grain Variety Test Results Available

Jul 12, 2019



## Breeding New Rye Cultivars for the Midwest

Research by Tim Phillips at University of Kentucky.

Dec 20, 2019



## Improving fungicide application recommendations for managing Fusarium head blight of wheat and barley

The overall objective of the research trials were to develop the best recommendations for managing Fusarium head blight (FHB; also known as scab) and the associated mycotoxin deoxynivalenol (DON; also known as vomitoxin) with foliar fungicides.

Oct 11, 2019



#### Reducing Fusarium Head Blight Vomitoxin Levels through Agronomic Practices

Current agronomic practices to reduce vomitoxin levels include planting moderately resistant wheat cultivars and fungicide applications at beginning flowering (Feekes 10.5.1 growth stage). This project is examining whether additional agronomic practices may potentially lower vomitoxin levels.

Oct 1, 2019



#### Identification and characterization of fungicide-resistant strains of Parastagonospora nodorum in Kentucky

Stagonospora leaf blotch is one of the most common foliar diseases observed in Kentucky. When flag leaves are affected by leaf blotch, yield losses generally occur. Glume blotch also is a common disease in Kentucky, and can reduce yields and test weight. One of the most common ways to manage these diseases is through application of foliar fungicides.

Oct 7, 2019



#### Rye Crop and Disease Management in Kentucky Report on 2018-2019

Rye as a grain crop has a potential local market with distilleries. Rye has not been grown in Kentucky since the 1920's. We have been conducting research for several years on growing rye for grain. In the 2019 harvest season, we established rye at Princeton and Lexington to test several management hypotheses and fungicide efficacy against the Fusuriaum head blight (FHB).

Oct 9, 2019



#### 2019 Fragipan Remediation Report

Annual ryegrass has been chosen as the central focus of the greenhouse and field research due its notable advantages and the compelling proof of its effectiveness. Annual ryegrass roots apparently contain exudates that have a degrading effect on the fragipan. The deep root penetration also increases soil porosity and may facilitate the leaching of the 4 or 5 other effective compounds down to the fragipan. We are presently looking for varieties of annual ryegrass that are more effective in breaking down the fragipan and varieties that are more easily killed by alyphosate.

Oct 14, 2019



#### Improvement and Development of Barley for Use in Feed, Malt, and Food

As interest continues to grow in locally produced ingredients from the craft brewing industry in the mid-Atlantic and eastern U.S. finding malted barley is not easy for those located east of the Mississippi river. Therefore, the program's main effort is breeding winter malting barley cultivars that have superior malt quality and are well adapted to the mid-Atlantic and southeastern United States.

Oct 15, 2019



#### Soil Health Benefit from Winter Wheat in the Rotation

This work is intended to answer the question:

Are there long term soil health benefits to having wheat in Kentucky farmers' crop rotation? Comparing wheat harvested for yield to wheat (or other small grain) as a cover crop, is it better for the soil to take wheat to grain harvest?

Oct 4, 2019



## Investigating cereal rye cultivars for improved cover crop performance

Cereal rye is planted on more acres than any other cover crop species in the U.S. because it can reliably produce substantial biomass in a wide range of growing conditions. In order to maximize these benefits, well-adapted cereal rye cultivars should be selected for rapid and complete ground cover, high biomass production, and high potential to suppress weeds.

Nov 7, 2019



#### Comparing Pyrethroids to Manage Aphids in Insectide Treated and Untreated Wheat Seed

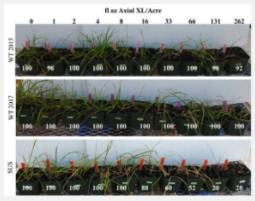
Commercial winter wheat seed (cv Pioneer26R1A) without and with insecticide seed treatment (Poncho® (clothianidin)) were planted into no-till research plots of the University of Kentucky's Research and Education Center in Princeton, KY.

Dec 21, 2019



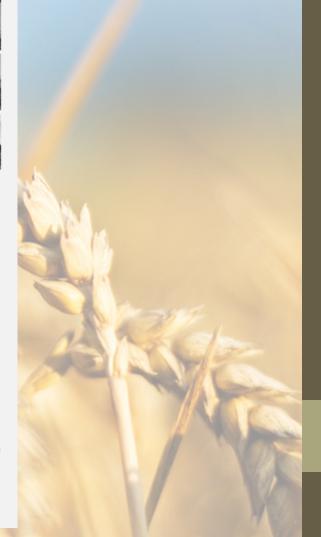
#### Changes of BYDV and CYDV Infection in Commercial Wheat of Western Kentucky

Barley yellow dwarf is one of the most devastating diseases in wheat worldwide. Two viruses, Barley yellow dwarf virus (BYDV) and Cereal yellow dwarf virus (CYDV), cause this disease, and are transmitted by several species of aphids. In Kentucky there are at least four aphid species, in which the bird cherry oat aphid (Rhopalosiphum padi) is the most efficient vector and the most abundant aphid species in western Kentucky. Mechanical transmission does not occur (i.e. by rubbing), and virus cannot multiply in the aphids. All aphid species must acquire this virus by feeding on infected plants. Here, we report the absence and presence of plants infected with BYDV or CYDV in commercial wheat fields in western Kentucky.



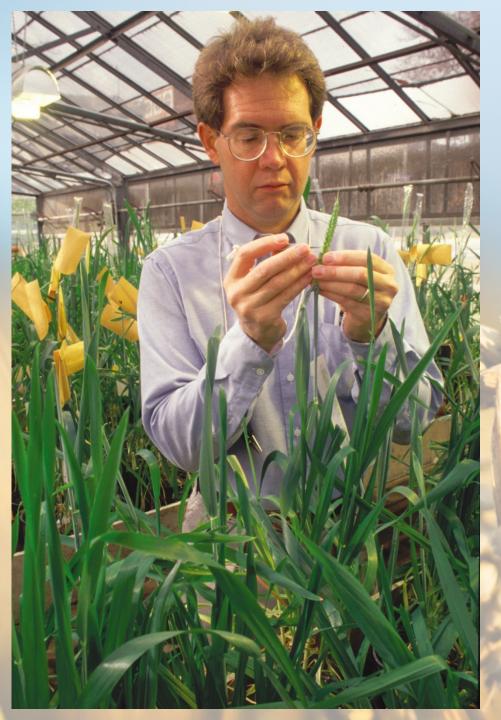
#### Investigation of Herbicide Resistance in Kentucky Italian Ryegrass Populations

Italian ryegrass in Kentucky has previously been confirmed as resistant to mesosulfuronmethyl and pyroxsulam (ALS-inhibitors, SOA Group 2) and diclofop-methyl (ACCase-inhibitor, SOA Group 1). In 2017 two separate populations of Italian ryegrass from Kentucky were submitted to the University of Kentucky weed science program for screening of herbicide resistance. The first population was suspected of glyphosate resistance and the second population contained two generations that were suspected of resistance to pinoxaden. The two populations were screened for resistance in greenhouses at the



## New Projects for 2019

- Advancing Modern Wheat Nutrition to Sustain both Yield and Economics of Production - John Grove, UK
- Providing Guidance to Kentucky Farmers for Grid and Zone Based Crop Management – Josh McGrath, UK
- Field Scale Characterization of Soil Structure and Hydraulic Properties for Variable-Rate Irrigation – Ole Wendroth, UK
- Evaluation of Variable Input Level Weed Control Programs in Wheat - Legleiter, UK
- Use of LED Lights to Optimize Barley Malt Diastatic Power and Bioactive Compounds for Food Production – Akinbode Adedeji, UK



# Research Funding To Date

## \$3.6 Million

Dedicated to Kentucky
Small Grain Research since
1992

## Research Endowment Fund

#### **Gifts of Grain**

- University of Kentucky College of Agriculture
- KySGGA will match up to \$50,000
- Growers may make an above the line deductible donation of grain
- Contributions so far \$78,000

# UK Grain and Forage Center for Excellence



- Grand Opening was held on September 20, 2019.
- Student housing was named in honor of Dave Van Sanford, thanks to a KySGGA contribution - \$785,000 total provided.



#### **UK Grain and Forage Center for Excellence**

Siemer Milling Co. pledged a \$1 Million contribution earlier this year.

## Kentucky Ag Community Mourns Loss of Don Halcomb

Don Halcomb departed our earth on January 16, 2019. He was a founding member of KySGGA and served as chairman of the Kentucky Small Grain Promotion Council for more than 25 years.

In 2017, Don received the UK Wheat Science Service Award, and his ideas laid the groundwork for the Grain and Forage Center of Excellence.





- UK hosted this event in Lexington, Sept. 15-16.
- 150 farmers, millers, bakers, chefs, researchers, maltsters, brewers, distillers, and consumers.



#### **Grower Education**



www.kysmallgrains.org

Find research reports, links to production information, education events and more!

## **Grower Education**

- UK Winter Wheat Meeting
- KentuckyCommodityConference
- KATS Field Schools
- UK Winter Wheat Field Day











#### Thursday, January 16, 2020 University Plaza Holiday Inn – Bowling Green

#### Agenda At a Glance (CST):

7:00 a.m. Early Riser Session (in the convention center)

8:30 a.m. Registration and Trade show opens

9:30 a.m. Marketing Session

11:00 a.m. Luncheon & Keynote (Dr. Danny Klinefelter)

1:15 p.m. Stress Management Session

2:30 p.m. Association Annual Meetings

5:30 p.m. Grower Appreciation Reception

6:00 p.m. Awards Banquet



#### January 7, 2020

## Winter Wheat Meeting

#### Siemer Milling Co. Conference Center UKREC, Princeton KY 42445

#### TOPICS Guest speaker: Siemer Milling Company

SOIL FERTILITY MANAGEMENT FOR WINTER WHEAT PRODUCTION ◆ CROP CONDITION ◆ CAN MANAGEMENT PRACTICES (OTHER THAN FUNGICIDE) REDUCE DON? ◆ RESULTS OF FUNGICIDE TRIALS FOCUSING ON MANAGEMENT OF FUSARIUM HEAD BLIGHT ◆ THE 2019 SOUTHEASTERN GRAIN GATHERING ◆ SMALL GRAINS AS RESERVOIR OF NATURAL ENEMIES MAY HELP TO REDUCE PESTS IN SUMMER GROWN FIELD CROPS IN WESTERN KENTUCKY ◆ SPECIALIZED TRIALS IN UK WHEAT VARIETY TESTING ◆ RYE ON THE FARMS ◆ WEED CONTROL IN WHEAT ◆ THE ECONOMICS OF SPECIALTY SMALL GRAIN IN KY

Registration: 8:30 am

Time: 9 am—3 pm (central time)

LEXINGTON, KY 40546

GPS: 348 University Dr. Princeton, KY 42445 CCA & PAT Credits: pending



For additional information contact: Colette Laurent, claurent@uky.edu - (270) 365-7541 EXT 21321

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Consumer Education

Educational resources and programs are provided to students and teachers through a partnership with Teach KY Ag.

We utilize our website and social media to share important industry resources.



Kentucky Agriculture & Environment in the Classroom, Inc.



Have Questions about Gluten?

MARCH 13, 2019 · GLUTEN



## Kentucky Livestock Coalition



- Education program trained 5 ag education interns to teach middle and high school students about food issues and finding credible information.
- More than 25 school/community events were conducted.



## Kentucky Wheat Yield Contest

State Champions	Farmer and/or Farm	County	Area	Division	Wheat Variety	Yield, bu/A		
NO TILLAGE	Corn Silk Farms	Logan	3	No Tillage	AgriMaxx 485	126.88		
Recipient of both the Highest Overall Yield, DuPont Pioneer Traveling Trophy & of the No-Tillage Highest Yield, Kentucky Small Grain Growers Traveling Trophy								
TILLAGE	James Matthew and Taylor Moss	Fulton	1	Tillage	Pioneer 26R59	115.79		
Area Champions	Farmer and/or Farm	County	Area	Division	Wheat Variety	Yield, bu/A		
Area 1. Purchase & Pennyrile	Michael Yoder	Todd	1	No Tillage	Pioneer 26R36	114.58		
Area 2. Green River	Jeff Coke	Daviess	2	No Tillage	Pioneer 25R50	114.73		
Area 3. Mammoth Cave	Armistead Farms	Logan	3	No Tillage	Becks 88	107.16		
Area 4. Rest of State	KSW Farms	Wayne	4	No Tillage	Armor	119.33		

Winners will be recognized at the Kentucky Commodity Conference in January. Many thanks to Chad Lee for administering this contest. Entry deadline is in July for 2020.

## National Wheat Yield Contest

National Association of Wheat Growers

www.wheatfoundation.org

The 2020 National Wheat Yield Contest opens for registration on January 1, 2020.

## Policy & Grassroots Efforts

- WOTUS
- USMCA
- US Japan Tariff
   Agreement





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