

**OKLAHOMA 4-H/FFA WHEAT SHOW QUALITY
IMPROVEMENT PROGRAM and
STATE 4-H/FFA WHEAT SHOW**

Sponsors: Oklahoma Department of Career and Technology Education, Oklahoma Genetics, Inc., Oklahoma State University, Oklahoma Wheat Commission, Oklahoma Wheat Research Foundation, Oklahoma State Fair, and WestBred™ seeds.

-Purpose-

The purpose of this program is to encourage increased production of wheat with superior market quality.

-Requirements-

1. Fill out the attached report form including story and entry form certifying involvement, and return with a 10-pound sample of wheat by 8:30 a.m. July 29, 2015.
Samples shipped to Payne County Fairgrounds, **4518 Expo Circle East, Stillwater, OK 74075, Attn: 4-H/FFA Wheat Contest, must arrive by Friday, July 24, 2015. Entries will not be accepted after 8:30 a.m. July 29, 2015.** Submit a 10-pound sample of wheat. Samples will be judged at Heritage Hall, Payne County Fairgrounds, on **July 29, 2015 at 8:30 a.m.**
From the intersection of Hwy 51 and 177, go east 1.9 miles, then north into the fairgrounds. Or, from the traffic light at Hwy 51 and Fairgrounds Rd, turn north then west into the Fairgrounds parking lot. Heritage Hall is the second entrance from the south, on the west end of the Expo Center building.
2. WHO MAY TAKE PART— Any regularly enrolled 4-H or FFA member. See current year 4-H Publication 5 - Oklahoma State 4-H Club Program Policies 2015.
3. HOW TO TAKE PART— Plant five acres or more of any variety of hard red or white winter wheat. **Certified or registered seed (verified by original certified/registered tag or original certified/registered seed receipt) is awarded three (3) points in the Milling & Production contest.**
4. No more than two entries per youth may be submitted; they must be different varieties and they must each have been planted on five (5) acres or more and harvested within the current calendar year.
5. Members of both 4-H and FFA may enter in only one division (either 4-H or FFA) each year.
6. Each Club/Chapter member is required to submit an accurate record of production and marketing costs involved in preparation, seeding, and harvesting the crop. This record is to consist of:
 - (a) **Fully completed** Current Year Report Form for Wheat Quality Improvement Program.
 - (b) **An original**, one-page typed narrative story authored by the student, giving the important facts and details relative to producing and marketing the crop, including but not limited to tillage practices and timing, rental agreement (if any), seeding rate, soil testing, pest control, grazing, harvesting/yield, fertilizer, chemical use, and weather conditions. This story is worth up to 5 points and will be scored.
 - (c) Completed Participant Certification form, **signed by member, parent, and educator.**

4-H/FFA STATE WHEAT CONTEST RULES AND PROCEDURES

1. **Two classes: 4-H** hard (red or white) winter wheat and **FFA** hard (red or white) winter wheat.

- a. Each entry must contain 10 pounds of wheat from a 5 or more acre plot.
- b. Maximum of two entries per youth; must be different varieties.
- c. Entries must have been harvested within the current calendar year.

2. **Milling & Production contest**

- a. All entries will be ranked separately in each class for visual characteristics relevant to grain marketability – primarily color and color retention, kernel size and morphology, consistency, and cleanliness. The visual judge will determine which entries are to be further evaluated for milling and baking attributes.
- b. Visual points will be allocated in 1-point increments starting with 25 points for the highest-ranked entry, progressing to 1 point for the lowest-ranked entry.
- c. Three (3) points will be given for certified or registered seed (original tag or original receipt stating seed is certified or registered required; no reproductions accepted).
- d. The top 25 entries will be selected using the visual and certified/registered seed scores.
- e. Up to five (5) points will be given for the report, which will be scored. (Report points will be added after the top 25 entries have been selected.)
- f. Test weight will be determined according to standard procedures for the top 25 visual entries. All entries will receive a base test weight score of 30 points.
 - i. Entries with test weight <59.5 lb/bu will be deducted 1 point per 0.1 lb/bu below 59.5 lb/bu. For example, an entry with 59.4 lb/bu test weight will receive 29 points, or an entry with 59.0 lb/bu test weight will receive 25 points.
 - ii. Entries with test weight >61.0 lb/bu will receive 1 bonus point per 0.1 lb/bu above 61.0 lb/bu. For example, an entry with 61.1 lb/bu test weight will receive 31 points, or an entry with 61.5 lb/bu test weight will receive 35 points.
- g. Wheat protein (12.0% moisture basis) and kernel hardness will be determined by NIR spectroscopy (AACC approved methods) for the same entries evaluated for test weight. All entries will receive a base wheat protein score of 30 points.
 - i. Entries with wheat protein content <12.0% will be deducted 1 point per 0.1 percentage unit below 12.0%. For example, an entry with 11.9% wheat protein will receive 29 points, or an entry with 11.5% wheat protein will receive 25 points.
 - ii. Entries with wheat protein content >12.5% will receive 1 bonus point per 0.1 percentage unit above 12.5%. For example, an entry with 12.6% wheat protein will receive 31 points, or an entry with 13.0% wheat protein will receive 35 points. No bonus points will be awarded for protein content exceeding 13.5%. Hence the maximum allowable score for wheat protein content is 40 points.
- h. All entries will receive a base kernel hardness index score of 5 points. Entries with kernel hardness <60 will be deducted 1 point per unit below 60. Any entry with a kernel hardness index <55 will thus receive 0 points.
- i. **A subtotal score for the Milling & Production contest** will equal the actual sum of points awarded for the report, seed certification verification, the visual ranking, test weight, wheat protein content, and kernel hardness, with no adjustment. Only the top 25 visual entries will receive a Milling & Production contest score. For the purpose of ranking, visual placement (section 2.d) will be used to break a tie in the subtotal score for Milling & Production.

3. **Baking Contest**

a. **Dough performance**

- i. To afford rapid and reliable assessment of dough quality, or that associated with dough strength, all entries (up to 25) receiving a Milling & Production contest score will be evaluated with a mixograph

according to AACC standard methods commonly used in wheat research. Attributes to be scored will be visual rating of the mixogram (0-to-6 scale), band width of the mixogram at 2 minutes past peak dough development (in mm), and mixograph stability (unitless).

- ii. Points awarded for the mixogram visual rating will equal the rating value multiplied by 2. Hence point values will vary from 0 to 12.
- iii. Points awarded for mixogram band width will equal the actual width rounded to the nearest mm. Point values will vary from 1 to about 20, or possibly more.
- iv. For mixogram stability value, lower values are more desirable. Because stability values rarely exceed 20, then the recorded stability values will be subtracted from an arbitrary value (e.g., 20, or a value appropriate to the evaluated set of samples) to arrive at an adjusted value consistent in direction with mixogram band width and visual rating. It shall be this adjusted value, rounded to an integer, which will equal the points awarded for mixograph stability.
- v. A dough performance score is obtained by the sum of points received for the mixogram visual rating, band width, and adjusted stability value.

b. Pup loaf performance

- i. Pup loaves (100g flour) will be prepared according to standard AACC methods for all entries (up to 25) receiving a Milling & Production contest score. One pup loaf per entry will be scored for crumb grain (0-to-6 scale) and measured for loaf volume (in cc) and bake absorption (in percentage units, with one decimal place).
- ii. Points awarded for crumb grain will equal the actual rating multiplied by 2. Hence point values will vary from 0 to 12.
- iii. Points awarded for loaf volume will equal the actual loaf volume minus 700 cc, with the difference divided by 10. This puts the point value for loaf volume on a similar scale to crumb grain. A loaf volume below 700 cc is usually considered undesirable, whereas a loaf volume above 1000 cc is usually considered exceptional. Hence an excellent loaf volume will yield a loaf volume score of about 30 points. Any entry with loaf volume ≤ 700 cc will receive 0 points.
- iv. Likewise, points awarded for bake absorption, rounded to an integer, will equal the loaf volume in percentage units minus 55.0%. A bake absorption below 55.0% is usually considered undesirable and often associated with lower wheat protein values. Bake absorption of about 65.0% is considered excellent, and such an entry will receive 10 points. Any entry with bake absorption $< 55.5\%$ will receive 0 points.
- v. A pup loaf performance score is obtained by the sum of points received for crumb grain, loaf volume, and bake absorption.

- c. A subtotal score for the Baking contest** will equal the simple sum of the dough performance and pup loaf performance scores. For the purpose of ranking, visual placement (section 2.d) will be used to break a tie in the subtotal score for Baking.

4. Scholarships, Grand Champion, Champions, and Top 5 Entries

- a. **An overall score for each entry** in a given class will be determined by the sum of the two subtotal scores (sections 2.h and 3.c)
- b. **Scholarships, which are funded by Check-off Dollars**, will be awarded to the top five 4-H entries and top five FFA entries based on the overall score. An individual may only win up to \$6,000 in wheat show scholarships during their 4-H/FFA careers.
- c. **Champions** will have the highest overall score for the 4-H contest and the FFA contest, and the **Grand Champion** will be awarded to the entry with the highest overall score between contests.
- d. **In case of a tie**, the Scholarships will be equally divided between the tied entries.
- e. If the awarded scholarship results in an individual's total scholarship winnings being above the \$6,000 lifetime limit, the excess (the amount the recipient total scholarship awards would be above \$6,000) will be awarded to the next lower scholarship winner(s) with the eligibility limits being \$3,000 annually and \$6,000

lifetime for each participant. For example, if the first place winner reaches \$6,000 and there is \$2,000 remaining, \$1,000 would go to the second place winner (making \$3,000) and \$1,000 would go to the third place winner (making \$2,000). If a participant is not eligible for a scholarship, then the next winner (i.e., sixth place) will be included as part of the top five scholarship winners..

- f. **Oklahoma Genetics, Inc. (OGI)** will award the top five 4-H and FFA entries cash awards if the participant enters an OGI-licensed variety.
 - g. **The Oklahoma State Fair** pays the state premiums.
 - h. **WestBred™** will supplement the **Grand Champion and Reserve Grand Champion** (The non-Grand Champion between the FFA or 4-H Champions) **Scholarship Awards noted in 4.b and 4.c. above** with a \$500 scholarship for the Grand Champion and \$250 for the Reserve Grand Champion. This award will be doubled if the Champion is a WestBred™ variety. The WestBred™ awards will not count against the \$6,000 scholarship limit.
5. **An Appeals Committee** will be designated by the contest officials before the annual contest judging is held. This committee is to receive and act upon any protest or question arising out of the contest. A protest/procedure question must be filed in writing, accompanied with a \$50 cash fee and presented within a week of the visual judging event day of the contest to Dr. Kim Anderson with a copy being sent to the respective 4-H Specialist or FFA Supervisor assigned to work with the event. If a protest is not upheld by the Appeals Committee, the deposit will be forfeited to the show awards fund. Protest must include specific rule(s) violated and evidence supporting how that respective rule(s) was not followed by contest officials or violated by a participant, family, educator/teacher or other individual. The protest must include the name and contact information of the person(s) filing the protest.

-AWARDS-

The Oklahoma State Fair pays the premiums. The premium awards will be:

MILLING AND PRODUCTION PLACEMENT

1st - \$25.00	6th - \$15.00	11th - \$10.00	16th - \$7.50	21st - \$5.00
2nd - \$20.00	7th - \$10.00	12th - \$ 7.50	17th - \$5.00	22nd - \$5.00
3rd - \$20.00	8th - \$10.00	13th - \$ 7.50	18th - \$5.00	23rd - \$5.00
4th - \$15.00	9th - \$10.00	14th - \$ 7.50	19th - \$5.00	24th - \$5.00
5th - \$15.00	10th - \$10.00	15th - \$ 7.50	20th - \$5.00	25th - \$5.00

BAKING PLACEMENT

1st - \$25.00	6th - \$15.00	11th - \$10.00	16th - \$7.50	21st - \$5.00
2nd - \$20.00	7th - \$10.00	12th - \$ 7.50	17th - \$5.00	22nd - \$5.00
3rd - \$20.00	8th - \$10.00	13th - \$ 7.50	18th - \$5.00	23rd - \$5.00
4th - \$15.00	9th - \$10.00	14th - \$ 7.50	19th - \$5.00	24th - \$5.00
5th - \$15.00	10th - \$10.00	15th - \$ 7.50	20th - \$5.00	25th - \$5.00

State Awards:

The top three placing in 4-H and top three placing in FFA will receive cash awards, and top five placing in both 4-H and FFA will receive a scholarship.

	Cash Award	Scholarship	Grand Champion
First	\$100	\$3,000	\$250
Second	\$50	\$2,000	
Third	\$50	\$1,000	
Fourth		\$1,000	
Fifth		\$1,000	

A maximum of \$6,000 total wheat show scholarships (4-H & FFA combined) may be awarded to an individual during their 4-H and FFA careers.

-AWARDS continued-

Oklahoma Genetics Inc. will supplement the top five 4-H and FFA entries cash awards if the participant enters an OGI-licensed variety.

1st place	\$500 + \$250 Grand Champion
2nd place	\$400
3rd place	\$300
4th place	\$200
5th place	\$100

WestBred™ will provide additional scholarship awards for the Grand and Reserve Champion entries. If the entries are WestBred™ varieties, the scholarship awards will be doubled.

Grand Champion: \$250 if not WestBred™ ; \$500 if WestBred™ variety
 4-H and FFA Champion: \$250 - \$500 if WestBred™ variety

2015 4-H/FFA REGISTRATION/REPORT FORM for
OKLAHOMA WHEAT QUALITY IMPROVEMENT PROJECT
(This page to be filled out legibly in participant's handwriting)

Office Use Only:

Entry No: _____

Certified Seed _____

Report Score _____

Name: _____ M____ or F____ Birthdate: _____

Parents' Names _____ Phone (____) _____

Mailing Address _____
 (Street or P.O. Box) (City), Oklahoma (Zip)

(Choose one: 4-H or FFA) Member of _____ 4-H Club in _____ County

or FFA Chapter at _____ School in _____ County

Local newspaper name, phone _____

and mailing address _____

Newspaper e-mail address _____
 If available (Publication address to send press release) For example, ag.editor@newspaper.com

Variety of Wheat Grown

Variety of wheat seeded _____ Was planted seed certified or registered? **Yes** **No**
 If yes, fasten original tag to last page.

Date wheat was seeded _____ Date wheat was harvested _____

Acreage and Yield

Value of wheat produced: _____ Bushels at \$ _____ per bushel, Total* = \$ _____

Cost/value of wheat on per field or per acre basis (circle one). Based on how many acres? _____

Financial Statement

Date land was first plowed/chiseled for wheat _____ Cost \$ _____

Number of times wheat land was worked (include dates in story) _____ Cost \$ _____

Cost of seedbed preparation\$ _____

Cost of seed and seeding\$ _____

Fertilizer cost at or before seeding\$ _____

Cost of harvesting the crop\$ _____

Cost for rental of land (detail in story)\$ _____

Chemical and application cost\$ _____

Fertilizer cost after seeding\$ _____

Other expenses (list)\$ _____

Total Expenses\$ _____

Value of wheat produced
 (*total value from above)\$ _____

Net Profit (Loss)\$ _____

(insert Narrative Report next page)

PARTICIPANT CERTIFICATION

We have each read, understand and will comply with the General Rules and Regulations governing the Oklahoma 4-H / FFA Wheat Improvement Show and agree that we will be held strictly liable for any violations of the aforesaid rules or regulations, which may include but are not limited to forfeiture of awards, scholarships, premiums and future participation by youth or students under educator/teacher's supervision.

We each certify that the entrant is a bona fide 4-H Club or FFA Chapter member and meets all membership, age and eligibility requirements for the show. The entrant is active in all phases of the production process, including management decisions, soil preparation, planting, harvesting, sample preparation and reporting.

ALL SIGNATURES MUST BE PRESENT FOR ENTRY TO BE ACCEPTED.

Member Signature

Parent Signature

4-H County Extension Educator OR FFA AG ED Teacher Signature
(Print name legibly and sign)

Narrative Report Instructions: The student is to write an original, one-page narrative story giving the important facts and details relative to producing and marketing your current calendar year wheat crop, including but not limited to location and history of field, tillage practices and timing, rental agreement (if any) seed source, date and variety, seeding rate, soil testing, pest control, grazing, harvesting/yield, fertilizer, chemical use, growing and weather conditions, harvest date, price and yield. This written narrative story is worth up to five (5) points and will be scored. Submit one report form and an *original, separate story* for each variety entered, with a maximum of two (2) varieties per youth. This Narrative Report page is to be typed*, in either 12-point Times New Roman or 10-point Arial font (do not use ALL CAPS, **bold** lettering, or *italics*).

Staple report pages together once in upper left corner (no paper clips, folders or binders), in order:

- 1) Current year Registration/Report form, completed by the entrant.
- 2) *Typed Narrative report; an original essay by the entrant. (An original, legibly handwritten first draft of this page is acceptable from young entrants; a final typed copy of the Narrative page must also be provided.)
- 3) Participant Certification form, **signed by member, parent, and educator**.

If seed is certified, fasten **ORIGINAL** certified or registered seed tag (no reproductions) to this page.

(tape or staple tag here)