

The Small Grain Production Guide



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OBJECTIVES OF 4-H SMALL GRAIN PROJECT

1. To learn the fundamental principles of small grain production through project work, demonstrations, and activities.
2. To maximize yields, improve quality, reduce per unit costs, and increase profits.
3. To increase understanding of best management practices.
4. To improve the quality of exhibits at fairs.
5. To understand the impacts of market and quality factors.

Introduction to the Small Grain Project

The small grain crop project is divided into four parts. All four parts of the project must be completed to be eligible to receive a 4-H Small Grain Grower Certificate and be eligible for 4-H Champion Small Grain Grower. A 4-H Champion Small Grain Grower will be selected based on the results of the following four categories:

| | | |
|-----------------------------------|----------------------------------------------------------------------------------|------------|
| Category 1. | Oral Presentation During County Field Tour <i>Total Points Possible</i> | 100 |
| Category 2. | County Fair Exhibit <i>Total Points Possible</i> | 50 |
| Category 3. | Yield and Market Quality Evaluation <i>Total Points Possible</i> | 100 |
| Category 4. | Record Book <i>Total Points Possible</i> | 100 |
| TOTAL MAXIMUM POINTS | | 350 |

APPROVAL AND ASSISTANCE OF PARENTS

This is to certify that I have read and approved the enclosed instructions, and that I will encourage my son or daughter to keep an up-to-date record book and to fulfill the requirements of the Small Grain Project.

Signature of Parent/Guardian _____

Club Name and Number _____

Date _____



REQUIREMENTS OF THE SMALL GRAIN PROJECT

1. Plant a minimum of five acres of small grain. If the chosen crop is malting barley, then plant with a source and variety approved by the malting barley contract. **An individual contract with the malting barley company is required.**
2. Club members must own their own project with a bona fide project agreement of contract with the parent or landlord as to machinery, labor, seed, share, etc. This must be signed by parent, leader, and contracting company field representative.
3. Use the best management practices as approved by the Cooperative Extension System for all crop-related activities, including land selection, seedbed preparation, planting, soil testing, fertilizing, cultivating, irrigation, and pest control.
4. Prepare an operating budget and keep accurate records of all labor, materials, and practices used.
5. Make an oral on-site presentation on a topic pertaining to cultural practices during the county field tour.
6. Prepare and exhibit your project at the county fair.
7. Carry project through harvest and quality evaluation.
8. Regularly attend 4-H club meetings and participate in club activities.
9. Complete your project record book and turn it in to your extension educator on or before the county fair.



Name _____

THE ORAL PRESENTATION COUNTY SMALL GRAIN FIELD TOUR

The oral presentation is intended to provide you with an opportunity to learn more about your project and to share your ideas and experiences with others. Your oral presentation will be evaluated as follows:

| Organization and Content | Points Possible | Your Score | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------|---------------|---------------------------|-----------------|-----------------------|---------------------|-----------------------|----|--|
| Opening comments | 5 | | | | | | | | | |
| Background Information (field history and site information) | 10 | | | | | | | | | |
| Knowledge and understanding of practices used (below) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Variety</td> <td style="width: 50%;">Seed treatments</td> </tr> <tr> <td>Fertilization</td> <td>Planting information</td> </tr> <tr> <td>Pest control</td> <td>Cultivation practices</td> </tr> <tr> <td>Seedbed preparation</td> <td>Irrigation scheduling</td> </tr> </table> | Variety | Seed treatments | Fertilization | Planting information | Pest control | Cultivation practices | Seedbed preparation | Irrigation scheduling | 15 | |
| Variety | Seed treatments | | | | | | | | | |
| Fertilization | Planting information | | | | | | | | | |
| Pest control | Cultivation practices | | | | | | | | | |
| Seedbed preparation | Irrigation scheduling | | | | | | | | | |
| Presentation <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Posture</td> <td style="width: 50%;">Friendliness</td> </tr> <tr> <td>Pronunciation</td> <td>Ease and confident manner</td> </tr> <tr> <td>Distinct speech</td> <td>Handling of Questions</td> </tr> </table> | Posture | Friendliness | Pronunciation | Ease and confident manner | Distinct speech | Handling of Questions | 20 | | | |
| Posture | Friendliness | | | | | | | | | |
| Pronunciation | Ease and confident manner | | | | | | | | | |
| Distinct speech | Handling of Questions | | | | | | | | | |
| General Appearance of Field <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Field borders</td> <td style="width: 50%;">Plant population</td> </tr> <tr> <td>Weed control</td> <td>Insect damage</td> </tr> <tr> <td>Disease control</td> <td>Appearance of plants</td> </tr> </table> | Field borders | Plant population | Weed control | Insect damage | Disease control | Appearance of plants | 30 | | | |
| Field borders | Plant population | | | | | | | | | |
| Weed control | Insect damage | | | | | | | | | |
| Disease control | Appearance of plants | | | | | | | | | |
| Personal Involvement | 20 | | | | | | | | | |
| 101 TOTAL POINTS POSSIBLE | Your Final Score | | | | | | | | | |

Judged by: _____ Date: _____

PARENTS ARE ENCOURAGED TO ATTEND FIELD TOUR!



RECORD BOOK EVALUATION

During Project Year

| Topic | Date | Signature | Score* |
|--------------------------------------------------|------|-----------|--------|
| Financial Performance Over Time (p. 3) | | | |
| Small Grain Budget (p. 4) | | | |
| Cash-Flow Worksheet (p. 5) | | | |
| General Information, Management Agreement (p. 6) | | | |
| Soil Information (p. 7) | | | |
| Field Map (p. 8) | | | |
| Growth Stages in Grain (p. 8) | | | |
| Water Usage (p. 9) | | | |
| Project Information, Seed Cost (p. 12) | | | |
| Machinery and Equipment Costs (p. 13) | | | |
| Fertilizer Costs (p. 13) | | | |
| Chemical Costs (p. 13) | | | |
| Labor Record (p. 14) | | | |
| Other Operating Expenses (p. 15) | | | |
| Yield and Crop Revenue (p. 15) | | | |
| Financial Summary (p. 16) | | | |
| General Information About Your Project (p. 17) | | | |
| Your Project Story (p. 18) | | | |
| Demonstration topic: | | | |
| | | | |
| | | | |

| Additional comments: | Score* |
|----------------------|--------|
| | |
| | |
| | |
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| | |
| | |
| | |

*Scores are determined as follows:

- 3 Page is completed accurately and on time.
- 2 Page is either late or incorrectly done.
- 1 Page is late and done incorrectly.
- 0 Lack of effort in completion of page and accuracy of work.



Your Record Book Score

All 4-H project record books will be graded under supervision of an extension educator at end of project year.

| Points Possible | Your Score | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|
| Completeness 1. All blanks properly filled | 30 | |
| Accuracy 1. Dates and accounts are correct. 2. Record appears logical. 3. Record is kept throughout the year and essential information is entered at proper time. | 30 | |
| Results - Story - Questions 1. Record shows good management, development, and care of project. 2. Proper language is used. 3. Record shows that experience was gained and that approved practices were followed. 4. Questions are answered properly. | 30 | |
| Neatness 1. Writing is legible (pen or pencil) 2. Book is reasonably clean. 3. Record shows signs of use. | 10 | |
| TOTAL | 100 | |

Graded by: _____ Date: _____

Your County Fair Exhibit Points

| | Points Possible | Your Score |
|-----------------|-----------------|------------|
| Best of Class | 5 | |
| Blue Ribbon | 20 | |
| Red Ribbon | 15 | |
| White Ribbon | 5 | |
| Exhibit at Fair | 25 | |
| TOTAL | 50 | |

Signed by Club Leader; _____ Date: _____



Your Market Quality Evaluation

Rejection in any category will automatically cause disqualification, resulting in a total score of zero.

| Points Possible | | Your Score |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------|------------|
| Protein | 10.0% - 11.5%..... 20 11.6% - 12.5%..... 15 12.6% - 13.0%..... 10 13.0% +..... Reject | |
| Screenings | 0 - 7%..... 20 >7% - 15%..... 15 >15% - 20%..... 10 >20%..... Reject | |
| Moisture | 10% - 11%..... 15 11% - 12%..... 10 12% - 13%..... 5 >13%..... Reject | |
| Color (Malt Barley only) | 75 - 100..... 15 60 - 74..... 10 40 - 59..... 5 <40..... Reject | |
| Foreign Kernels (does not include wild oats*) | 0..... 10 >0 - 0.5%..... 5 >0.5%..... Reject *Reject if wild oat content is greater than 1%. | |
| Damaged and Diseased Kernels | 0..... 10 >0 - 2.0%..... 7 >2.0% - 3.5%..... 5 >3.5%..... Reject | |
| Skin and Broken Kernels | 0 - 1.0%..... 10 1.0% - 2.0%..... 5 >2.0%..... Reject | |
| TOTAL | 100 | |



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Production Guide



University of Idaho
Extension

Project book revised 09/02

