TEACHING GRAINS, OILSEEDS AND PULSES YOUNG JUDGES

Incorporating grains, oilseeds and pulses young judges competitions into your classroom

Handbook for Teacher AGRICULTURAL SHOWS AUSTRALIA



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Introduction

The Young Judges Grains, Oilseeds, and Pulses Competitions provide educational experiences for young people with an interest in a career or hobby in agriculture through judging.

Young judging competitions provide public speaking and networking opportunities through the competition process, as well as giving young people the opportunity to develop lifelong skills in visually assessing and handling agricultural commodities.

Young Judges develop a better understanding of, and make a valuable contribution to, agricultural industries. Judging is a skill that incorporates the visual assessment of agricultural products and public speaking. Agricultural producers and buyers all judge and evaluate commodities for their desired purpose including those for human consumption or stockfeed.

Through the Young Judges competition, young people will learn to consider the production purpose of the commodity and what will contribute to increased productivity. In Australia, examples of different grain-growing purposes include food production, oil production, livestock feed, or seed for sowing. Grain producers and buyers will visually assess seed prior to purchase or selling.

Students start their judging at local competitions, progress to group finals, and then to the state finals at the State Royal Show. Currently, not all Australian states hold finals. To get your students started, contact your local Show Society to see if they conduct a Young Judges Competition. Agricultural Shows across Australia host young judging competitions nearly every weekend of the year. A school excursion to a local show offers a range of benefits to both students and the local community. Specifically, judging competitions and local shows offer students a friendly, encouraging environment in which to start their agricultural careers. There are often several competitions being held at one location on the same day for students to focus on their interests, and there is the opportunity to progress to a higher level in the same competition category. Most shows host their competitions in a relaxed environment to encourage participation, support first-time participants, and give advice and instruction during the competition.

This handbook will support teachers to gain an understanding of the Young Judges Grains, Oilseeds, and Pulses competition offered from a local through to state level of competition. It should be used as a guide to assist teachers in incorporating Young Judges Grains, Oilseeds, and Pulses competitions into their classrooms and be used as a tool for teaching about Australian agriculture.

Incorporating the Grains, Oilseeds, and Pulses Young Judges Competitions into the Classroom

Participating in the Young Judges Competitions with your students can cover several curriculum areas supporting a broad range of units of work.

Australian Curriculum Links

Year 7

- Interactions between organisms, including the effects of human activities can be represented by food chains and food webs (<u>ACSSU112</u>)
- People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (<u>ACSHE121</u>)
- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (ACSHE120)
- Measure and control variables, select equipment appropriate to the task and collect data with accuracy (<u>ACSIS126</u>)
- Communicate ideas, findings and evidence based solutions to problems using scientific language, and representations, using digital technologies as appropriate (<u>ACSIS133</u>)

Year 8

- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (<u>ACSHE135</u>)
- People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity (<u>ACSHE136</u>)

Year 9

- Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment (<u>ACSSU175</u>)
- Advances in scientific understanding often rely on technological advances and are often linked to scientific discoveries (<u>ACSHE158</u>)
- People use scientific knowledge to evaluate whether they accept claims, explanations or predictions, and advances in science can affect people's lives, including generating new career opportunities (ACSHE160)
- Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (<u>ACSIS166</u>)
- Analyse patterns and trends in data, including describing relationships between variables and identifying inconsistencies (<u>ACSIS169</u>)

Year 10

- Transmission of heritable characteristics from one generation to the next involves DNA and genes (<u>ACSSU184</u>)
- The theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence (<u>ACSSU185</u>)
- People use scientific knowledge to evaluate whether they accept claims, explanations or predictions, and advances in science can affect people's lives, including generating new career opportunities (ACSHE194)
- Values and needs of contemporary society can influence the focus of scientific research (<u>ACSHE230</u>)
- Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (<u>ACSIS200</u>)
- Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations (ACSIS208)



This is intended to be a general guide. There may be some variations in rules and expectations between shows. Individual shows will provide further advice and clarification. Most Young Judges at shows across Australia follow similar basic rules to those listed below:

- Competitors must be fifteen (15) and under twenty-five (25) years of age on first (1st) May in the year of the Competition. Competitors under the age of eighteen (18) must be accompanied by a chaperone.
- > The Computer Scoring Program and the Hormel Slide often used for calculation of the points and placings.
- At no time during the competition during the competition should a Competitor talk with the Judge unless directed to do so by the Steward.
- Competitors may be eliminated from the competition if the Judge or Steward considers they are receiving outside assistance including the use of unauthorised devices.

Judging Cards

- Judging Cards are simple in design. All that is required by Competitors is to place animals in order one, two, three, four (1, 2, 3, 4).
- The Computer Scoring Program and Hormel Slide show the degree of penalty (splits) as related to the degree of difference between animal placings and the Competitor is scored accordingly.
- > The Oral Section Guideline may be retained by the Competitor. It is designed to ensure Competitors use comparative details in their Oral description of the Class.
- > The Work Sheet is to note the features of each animal and the reason it was placed in its position.

Competition Timing

To maintain the interest of Competitors, the animals and the spectators competitions are typically completed in approximately one and a half (1½) hours. The timing differ per competition, however are roughly as follows:

- > Visual Judging: Eight to Ten minutes per class
- > Oral Judging: Two minutes speaking. Points are deducted from the competitors score if they speak over their 2 min timeslot.

Purpose of the Competition

The Grains, Oilseeds, and Pulses Young Judges Competition gives students an introduction to the cropping industry and provides skills to identify the best product for its end use.

The purpose of the agricultural commodity is important to consider when judging. It is very important to determine why the commodity has been grown or produced.

Grains are commonly referred to as cereal grains or cereals and are the edible seeds of certain grasses belonging to the Poaceae Family. Common cereal grains used as exhibits are wheat, barley, and oats. These cereal grains are used to produce food items such as bread and livestock feed.

Oilseed crops are grains grown so we can extract oil that is contained in their seeds. The seed is crushed to release the oils. In the case of canola, often the left-over meal is used as a stock feed for animals. The major Australian oilseed crops grown are canola, soybean, sunflower, and cottonseed. The oils extracted from the seeds have a range of end uses including cooking oils, spreads, shortenings, packaged foods, and ingredients in cosmetics. Australia exports canola which equates to 15-20% of the world's canola trade each year.

Pulses are grain legumes. The term 'pulse' is derived from a Latin origin. Pulses grow inside of pods and come in a range of shapes, sizes, and colours. The most common pulses seen in competitions are chickpeas, lentils, and lupins.

Judging – How To

Visual Judging

It is important to approach visual judging of Grains, Oilseeds, and Pulses with a systematic approach:

- Look at the exhibits as a class. This is a general assessment of the samples to make a first impressions comparison of the four samples in the class;
- Take note of provided test results such as test weights, and protein and oil contents;
- Systematically work through the entire sample from one side of the tray to the other. The samples should be uniform, true to type, and free from contaminants. Look for environmental, insect, and harvest damage, insects, weed seeds, disease, and harvest trash;
- Using collected information place the exhibits and fill in the judging card;
- 5. Note down your placing and main points for the oral section.

Young Judges Speech

The oral section is a chance for the Young Judge to explain how and why they have placed the exhibits. It is important to know how this section is scored. Competitors in the oral section are scored on their accuracy of observation, their ability to compare the exhibits, speaking skills, and their presentation. Fifty (50) points are allocated to the oral section, 10 points are allocated each for dress and speaking ability and 15 points are allocated each for accuracy of observation and comparison between exhibits. The judge will determine the value of your reasons and presentation throughout your speech.

The speech has a maximum time of two minutes per competitor. Competitors should present a concise speech and follow the structure:

- A thank you to the people who have made the competition possible by name. These may include the Show Society, Over Judge, Sponsors, and Exhibitors;
- An introduction to the class that was judged and your placings;
- > Direct comparison between placings;
- > Restate placings and a conclusion.

The main goal of the speech is to explain to the judge why you have placed the Grains, Oilseeds, and Pulses in the order you have chosen by comparing them in pairs - first place with second, second against third, and finally third against fourth. Rather than describing each exhibit individually, competitors draw comparisons against the attributes of each pair. For example, "In the top pair, I placed exhibit number (e.g.) 3 ahead of exhibit (e.g.) 1 because ... [highlight the strengths before weaknesses, if any are present]." Remember to prioritise the most important reasons first. Be as descriptive as possible in your comparisons, using the correct terminology, highlighting why the characteristic is superior.

Accuracy of observation points is awarded for young judges who can correctly identify the characteristics of exhibits. Incorrect statements during a speech will lead to a deduction of points.

Personal presentation should be neat, clean, and suitable for the competition. For Grain judging, this includes a blazer, and tie or scarf. Hats should only be worn if judging is held outside. Blazers can be removed for judging.

The Terminology

| Cleanness | freedom from broken grains, weed seeds, foreign matter, soil, and chemicals used in seed treatment. |
|---------------------------|--|
| Freedom from Disease | no presence of conditions that affect the visual or structure of the grain e.g. black tip in wheat. |
| Freedom from Insect pests | no presence of insects or insect damage. |
| Grains | cereal crops e.g. wheat. |
| Harvest trash | chaff, husks, and pods not removed during harvest. |
| Harvest damage | cracked or split grains. |
| Mottled grain | grain with uneven colour. |
| Oilseeds | crop produced to have oil extracted for the seed e.g. canola. |
| Pulses | legume crops that produce seed from a pod e.g. lentil and chickpeas. |
| Quality | suitability for the product for its end use. |
| Shot or Sprouted grains | the germination process has begun. |
| Test weight | weight of a half-litre of grain. |
| Uniformity | grains are of equal size, a regular shape, and similar colour. |
| Weed seeds | any other seeds than those of the exhibit e.g. canola in wheat. |
| Weather damage | frost, rain, or heat damage. |

Activities

Classroom Activity

Weed Seed Contamination

Discuss why weed seeds cause issues in grain that is used for human consumption.

Students research which cereal, oilseed, and pulse crops are grown in the local area. Select a specific crop and create a multimedia presentation of common weeds that affect the selected crop and how contamination can affect that commodity.

Practical Activity

Make Bread

Can weather damage affect the end products of wheat products? When rain-damaged grain is milled into flour and made into a dough, behavioural changes in the dough can be observed.

In groups, investigate the effects of weather damage on grains and their end uses. Use high-quality wheat and rain-damaged wheat to make bread. Mill your flour from each type of wheat and make it into bread.

Compare the two loaves of bread and create a presentation to show younger students why highquality grains are needed for human consumption.





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