The Grains and Fodder Committee of the Royal Agricultural & Horticultural Society of South Australia (RAHS) is pleased to invite all South Australian schools to participate in the 2025 Royal Adelaide Show School Sow and Grow Wheat Competition.

AIMS OF THE COMPETITION

The School Sow and Grow Wheat Competition aims to:

- Give students an insight into the science of growing wheat
- Allow students to compete in a curriculum-linked trial that provides insights in the requirements for growing a crop
- Offer students practical, hands-on insight to the future employment opportunities with crop production and agronomy
- Provide students with the opportunity to compete with other schools at the Royal Adelaide Show
- Encourage school participation and progression into grain judging competitions and crop growing

COMPETITION COMPONENTS

The 2025 Royal Adelaide Show Sow and Grow Wheat Competition will run at your school before the 2025 Royal Adelaide Show and culminate at the Show by exhibiting a pot of wheat plants.
The Competition is judged by industry experts and consists of two (2) MANDATORY components:

- Presentation of Exhibit: A pot of a minimum of four (4) growing plants. The plants are judged on uniformity and vigour, both above ground and root components
- Project component: Students must create a poster detailing information about the wheat growing and evaluation of the project. The poster is A2 size and will be on display for the duration of the Show.

HOW TO ENTER

The 2025 competition is open to interested schools.
Entries must be submitted through the Royal Adelaide Show online entry portal prior to the closing date.
Entry Fee: $10
Should you have any questions regarding the competition, please contact the coordinator of the Sow and Grow Wheat Competition, Chelsea Wilkinson 08 8210 5251

COMPETITION KEY DATES

Online Entries Open	Monday 4 February 2025
Competition growing week commences:	Monday 29 April 2025
Online Entries close:	Friday 13 June 3025
Competition growing week concludes:	Friday 29 August 2025
Delivery of Exhibits to the Golden Grains Pavillion	Monday 1st September - 9.30am to 9.45am
Judging and Presentation	Monday 1st September - 10am – 11.30am

AWARDS

The Royal Adelaide Show School Sow and Grow Wheat Competition has awards for each of the following components:

Judging of Plant Growth and Vigour

$100 first, $75 second

Project Poster

Years 5 & 6	$50 first, $30 second
Years 7 & 8	$50 first, $30 second
Years 9 & 10	$50 first, $30 second

The School Sow and Grow Wheat Champion

Champion sash and $200
(with the best combined score from the two components being awarded)

OTHER YOUTH EVENTS

The Royal Adelaide Show Grains and Fodder section hosts several other youth competitions during the Royal Adelaide Show including:

- Junior class for Grain
- Junior class for Hay
- Schools Crop Competition (eligible for schools participating in the AgXtra Schools Crop
    - Competition)
- Grains Young Judges Championship (part of the Agricultural Shows Australia National competition)

Information on these competitions can be found in the Grains and Fodder Schedule and Young Judges Schedule on the Royal Adelaide Show website www.theshow.com.au

ELIGIBLE ENTRANTS

Open to students in years 5 - 10 within Australia.
Students can enter the competition individually or as a team containing a maximum of 3 students per group.
Each pot represents one entry. It is recommended you only enter one pot per team.
Individuals or teams must deliver their pot of wheat and their A2 poster to the Golden Grains Pavillion at the Adelaide Showground in person at 9.30am on Monday 1st September 2025.

PROJECT OUTLINE

SEEDS

Students can source wheat seeds from local farmers or pet/feed suppliers.
Sourced wheat seeds **must not** be treated with any grain protectant.

POTS

Pots must be 14 litres in volume. This rule is extremely important, and any larger or smaller pot sizes will be disqualified. Suitable 300mm standard, 14 litre pots can be obtained from your local garden supplier or hardware store. (Old pots can be used but must be cleaned thoroughly for your project.)
Soil choice is a student decision. It may be soil from a school garden, students' home, a farm paddock or even washed sand. It is recommended to take soil from the upper 30 cm of a site and your choice of soil and reasons be documented in your report. DO NOT USE POTTING MIX
Pots **must be placed on** a plastic pot saucer to avoid root growth escaping beyond the pot.

GROWING CONDITIONS

It is recommended that you sow seeds approximately 10cm apart and sow 2 or 3 seeds per planting hole to improve your chance of germination. If more than one seedling does germinate and emerges in a planting hole you can then pinch out any excess seedlings if you wish.

You must grow a minimum of 4 plants per pot

Planting (sowing) can occur anytime on or after the first day of term 2 in South Australia i.e. April 29, 2025.
Note: If your crop fails during the growing period, you can replant your pots.

To plant, you will need to supply the following:

- 14 litre pot, (black plastic 300mm)
- Local soil
- fertiliser and water
- protective mask, gloves and watering can.

Entrants can experiment with the following growing condition variables to achieve the most vigorous growth.

- wheat variety,
- seed sowing technique
- light,
- water,
- fertiliser.

NOTE: YOU MUST NOT USE ANY OF THE FOLLOWING CHEMICALS IN THIS PROJECT – HERBICIDES, INSECTICIDES, FUNGICIDES, NEMATICIDES OR PLANT HORMONES.

Remember any treatment you decide to try to get the best plant vigour should be done to the whole pot, (not to individual plants in the pot) and be clearly documented in your report. For example,

1. variety – all seeds in your pot must be the same variety
2. Water – if you choose a particular watering procedure or water type, all plants must receive the same watering.

RECORDING

Each team or entrant must keep a record of the treatments they use on the potted plants, growth of their plants and present their photos, observations, measurements and evaluation on an A2 size poster. Growth measurement can be done using criteria such as:

- Germination rate
- time from sowing to emergence of seedlings
- time from sowing to reach significant growth stages
- height of plants
- Tiller numbers
- Leaf numbers

These experimental criteria suggested are simply a guide, students are free to make other measurements.

REPORTING

Entrants should include the following in the A2 poster report (see judging rubric for further details):

- Title
- Description of the trial (how you ran the trial to achieve most vigorous growth)
- Tables of data recorded and appropriate graphs of measurements
- Photos of each major stage of plant growth and the trial
- Evaluation of plant growth and conditions
- Recommendations to improve the crop growth
- Links to the wheat industry
- Name(s) of entrant(s) and school

DELIVERY OF PROJECT

Both your pot of plants and your A2 Report must be delivered to Golden Grains Pavillion at the Adelaide Showground on Monday 1st September at 9.30am. Your project will be judged between 10 – 11.30am. You are required to be with your project for the whole time of judging and for a short period after judging, when prizes and awards will be presented.

GENERAL JUDGING CRITERIA

- Condition and vigour of all plants in the trial
- Examination of one plant for vigour of roots and foliage.
- Project description, evaluation and presentation of results
- Informal oral presentation by entrant(s) on judging day and QA responses.

JUDGING OF PLANT GROWTH AND VIGOUR CRITERIA

The condition and vigour of all plants in the pot trial will be evaluated. One plant will be removed from the pot and examined for root vigour.

Criteria	Score	Score Guidelines
Plant Appearance (colour and evenness of plants)	/15	Low Performing Score 0-6 Average Performing Score 6-12 High Performing 13-15
Foliar Growth (tiller count & leaf and tiller size)	/30	Low Performing Score 0-15 Average Performing Score 15-25 High Performing 25-30
Root Growth (root mass and growth in available space)	/30	Low Performing Score 0-15 Average Performing Score 15-25 High Performing 25-30
General health (free from insects and microbial damage & overall health)	/15	Low Performing Score 0-6 Average Performing Score 6-12 High Performing 13-15
Presentation (plant care and pot cleanliness)	/10	Low Performing Score 0-64 Average Performing Score 5-7 High Performing 8-10
Total	/100	

PLANT APPEARANCE

Appearance will be judged on evenness of green foliar colour and uniformity of plant height and tiller growth. Colour indicates photosynthetic level and degree of growth is a key indicator of soil nutrition and environmental conditions.

Foliar Growth

Tiller count will be totalled for all plants, leaf and tiller size visually observed. These measurements are indictors of yield potential of plants.

Root Growth

One plant will be dug from the pot, roots washed, and visual observation used to indicate plant use of soil space and fertiliser.

GENERAL HEALTH OF PLANTS

The health of the plants is key to potential growth and yield. Damage from insects and microbes will be measured visually to assess effect on plant photosynthesis and what efforts have been taken to manage health without using non allowed chemicals.

Presentation

Plants and pots are inspected to assess level of care taken with the trial.

Defects and disqualifications.

- Dirty or damaged pots (possible disease infection)
- Weeds or live insects
- Transplanted plants

SCHOOL PROJECT COMPONENT

Students participating in the School Sow and Grow Wheat Competition will submit an A2 poster for their team on Monday 1 September 2025, at 9.30am, along with their pot of wheat plants.

CURRICULUM LINKS FOR PARTICIPATING STUDENTS

Completion of the RAHS School Sow and Grow Wheat Competition will involve students in activities that develop skills in Technologies curriculum components highlighted in the ACARA V9 Curriculum map following. Teachers may select the specific features most appropriate for their cohort of students for formative and/or summative school assessment purposes.

GUIDELINES:

- Poster dimensions set for A2 (420 x 594 mm) on paper or card. (All entries will be displayed by the RAHS Grains and Fodder Committee for display at the Show in Golden Grains. Poster may be collected on Sunday September 8 after 4pm.)
- Poster can be portrait or landscape orientation
- Must have student's name and school clearly displayed at the top
- Must be the student's own work entirely and can be printed or hand-drawn or combination
- Schools must ensure they have family/carer consent for any images of students included in the posters to be used for public display
- The format of the poster is to be determined by the students, with originality and creativity encouraged. They should use the assessment rubric provided to guide them in deciding the content and layout of their posters.

JUDGING CRITERIA- SCHOOL PROJECT COMPONENT

	Evidence	10,9	8,7,6	5,4,3	2,1,0	Total /10
Presentation	Use of original images	Highly effective use of original images	Effective use of original images	Some use of original images	Limited use of original images	
	Layout/Format	Highly engaging and clear layout	Effective and clear layout	Some aspects of layout considered	Limited layout considerations	
	Originality & creativity	Highly original and creative presentation	Good creativity & originality	Some creativity &/or originality	Limited originality &/or creativity	
Content	Description	Concise and informative description of crop program	Effective description of crop program	Some description of crop program	Limited description of crop program	
	Presentation of plant data	Highly effective presentation of accurate, relevant plant data	Effective presentation of mostly accurate & relevant plant data	Some data presentation	Limited data presentation	
	Evaluation of plant growth and conditions	Insightful reflection on plant growth & conditions	Logical reflection on plant growth & conditions	Some reflection on plant growth & conditions	Limited reflection on plant growth & conditions	
	Agronomic recommendations	Insightful, justified recommendations to improve crop outcomes	Logical, relevant recommendations to improve crop outcomes	Some simple recommendations to improve crop outcomes	Limited recommendations to improve crop outcomes	
	Industry links	Highly effective links to grains industry	Effective links to grains industry	Some links to grains industry	Limited links to grains industry	
	Technical language	Accurate and highly effective use of technical language	Effective use of technical language	Some use of technical language	Limited use of technical language	
	Acknowledgement of sources	Thorough and accurate acknowledgement of sources of information and images	Effective acknowledgement of sources of information and images	Some acknowledgements of sources of information and images	Limited acknowledgement of sources of information and images	
				TOTAL	100	

Curriculum Map: Australian Curriculum Version 9 Achievement Standards

Technologies Year 5-6

By the end of Year 6 students explain how people design products, services and environments to meet the needs of communities, including sustainability. For the prescribed technologies context *food and fibre production and food specialisations*, they explain how the features of technologies impact on design decisions and they create designed solutions. Students select and justify design ideas and solutions against design criteria that include sustainability. They communicate design ideas to an audience using technical terms and graphical representation techniques. Students develop project plans, including production processes, and select technologies and techniques to safely produce designed solutions.

Technologies Year 7-8

By the end of Year 8 students explain how people design, innovate and produce products, services and environments for preferred futures. For the prescribed technologies context *food and fibre production*, they explain how the features of technologies impact on design decisions, and create designed solutions based on

analysis of needs or opportunities. Students create and adapt design ideas, processes and solutions, and justify their decisions against developed design criteria that include sustainability. They communicate design ideas and solutions to audiences using technical terms and graphical representation techniques, including using digital tools. They independently and collaboratively document and manage production processes to safely produce designed solutions.

Technologies Year 9-10

By the end of Year 10 students explain how people consider factors that impact on design decisions and the technologies used to design and produce products, services and environments for sustainable living. They explain the contribution of innovation, enterprise skills and emerging technologies to global preferred futures. For the *food and fibre production* context, students explain the features of technologies and their appropriateness for purpose, and create designed solutions based on an analysis of needs or opportunities. Students create, adapt and refine design ideas, processes and solutions and justify their decisions against developed design criteria that include sustainability. They communicate design ideas, processes and solutions to a range of audiences, including using digital tools. Students independently and collaboratively develop and apply production and project management plans, adjusting processes when necessary. They select and use technologies skilfully and safely to produce designed solutions.

Australian Curriculum Version 9 Content Descriptors

Strand: Technologies knowledge and understanding

Year 5-6: explain how and why food and fibre are produced in managed environments AC9TDE6K03

Year 7-8: analyse how food and fibre are produced in managed environments and how these can become sustainable AC9TDE8K04

Year 9-10: analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises AC9TDE10K04

Strand: Technologies processes and production skills

Year 5-6: select and use suitable materials, components, tools, equipment and techniques to safely make designed solutions AC9TDE6P03

Year 7-8: select, justify and use suitable materials, components, tools, equipment, skills and processes to safely make designed solutions AC9TDE8P03

Year 9-10: select, justify, test and use suitable technologies, skills and processes, and apply safety procedures to safely make designed solutions AC9TDE10P03

Notes to Exhibitors

- All rules pertaining to the 2025 Royal Adelaide Show Grains and Fodder competitions also apply to the School Sow and Grow Wheat Competition.
- Ignorance is no excuse for not abiding by the rules and regulations of the Royal Adelaide Show Grains and Fodder competitions.
- The rules of the Royal Adelaide Show Grains and Fodder competitions can be found at the front of the competition schedule. Please make yourself familiar with them.
- All entries MUST be made online through the Royal Adelaide Show entries portal. This will ensure all appropriate notices and paperwork can be sent to you, including permit passes to enter the show on judging day.
- Entry fee is $10.
- Wheat plants must be transported to the show to ensure they exhibit well.
- Exhibitors **do need to be present** during the judging to discuss their project with the judges. A judging area will be set up and is closed to the public during judging.

- Handy tips to assist you through your wheat growing journey.
  - https://agriculture.vic.gov.au/crops-and-horticulture/grains-pulses-and-cereals/growing-grains-pulses-and-cereals/growing-wheat-in-victoria
  - https://grdc.com.au/__data/assets/pdf_file/0031/364594/Cereal-growth-stages.pdf
  - https://sagit.com.au/2025-sowing-guide/