

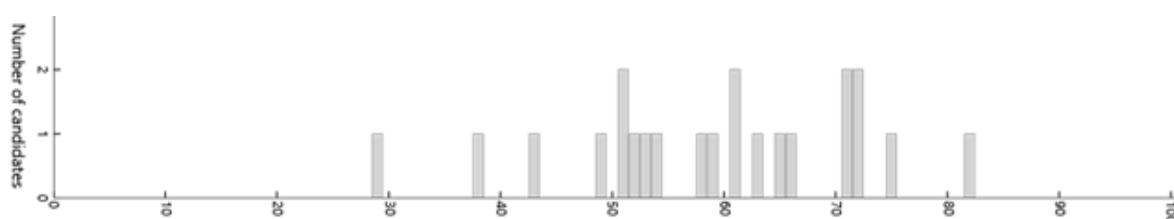


## Summary report of the 2023 ATAR course examination report: Plant Production Systems

Year	Number who sat	Number of absentees
2023	22	0
2022	29	0
2021	41	0
2020	43	0

The number of candidates sitting and the number attempting each section of the examination can differ as a result of non-attempts across sections of the examination.

### Examination score distribution



### Summary

The examination's mean was slightly lower than that of 2022. The candidates' strength was in the Multiple-choice section and their weakness lay in the Extended answer section.

Attempted by 22 candidates                      Mean 58.78%            Max 81.56%    Min 29.00%

Section means were:

Section One: Multiple-choice	Mean 67.27%		
Attempted by 22 candidates	Mean 13.45(/20)	Max 17.00	Min 10.00
Section Two: Short answer	Mean 62.55%		
Attempted by 22 candidates	Mean 31.28(/50)	Max 43.81	Min 15.00
Section Three: Extended answer	Mean 46.82%		
Attempted by 21 candidates	Mean 14.05(/30)	Max 24.75	Min 0.00

### General comments

Candidates generally performed well on the Multiple-choice and Short answer sections. However, responses in the Extended answer section were poor; candidates often made simple statements lacking in sufficient depth and struggled to formulate a coherent answer. Candidates demonstrated strengths with some parts of the syllabus and showed glaring gaps with other parts. Sustainability is a key concept in the syllabus. However, some candidates were fixated on irrigation as a strategy, both as a short-term and long-term solution. Some candidates had less than adequate understanding of key terms, such as 'monitoring', 'experimental design', 'bias', 'risk mitigation', 'quality assurance' and 'hybrids'. Overall, the examination challenged candidates, with those who were ill-prepared generally showing a lack of knowledge and an inability to provide practical examples or give solutions to common plant production systems.

### Advice for candidates

- If you study an aspect of plant production that includes a practical example, ensure you have a full understanding of its role in that area of production.

- Extended answer questions need to be broken down and a plan made to ensure your answer is coherent. Filling the page with irrelevant information does not attract marks.
- Irrigation in Western Australia should not be considered as a strategy in marginal rainfall areas or in the face of climate change.

#### *Advice for teachers*

- Students have historically scored well in their Multiple-choice and Short answer sections and poorly in the Extended answer section. Ensure that school assessments have a greater emphasis on writing extended responses, so that feedback can be part of the learning process.
- Planning is the key to a good answer. Encourage students to make a plan before answering extended questions.

### ***Comments on specific sections and questions***

#### **Section One: Multiple-choice (20 Marks)**

The mean for this section was lower than in 2022. However, the minimum mark was 10 out of 20, an improvement from 2022. All candidates chose the correct answer to Questions 6 and 16, while the means for Questions 4, 9, 18 and 19 were poor. In Question 18, most candidates incorrectly selected distractor (a) which, while being a likely outcome, was not supported by the graph showing the long-term effect of organic fertiliser. It was also apparent from the responses to Question 19 that candidates regarded irrigation as a sustainable strategy to mitigate climate change in Western Australia, even though there is no economical or environmental reason to irrigate broadacre crops there.

#### **Section Two: Short answer (105 Marks)**

The mean for this section was lower than in 2022, with the maximum and minimum scores also lower than in 2022. Question 26, which included a graphing part, was done well but the 'risk severity matrix' was done poorly. Generally, where candidates were asked to list, state or outline their answer, they performed well. Where discussion or explanation was required, very few candidates had the depth of knowledge or the ability to draw on relevant examples to underpin their answer. Question 23 part (d), requiring candidates to design a paddock production record that could be used in nutrient management, was not attempted by many.

#### **Section Three: Extended answer (40 Marks)**

The mean for this section was slightly above the 2022 mean and the maximum score was also slightly higher than in 2022. From the two alternative questions, 81% of the candidates chose to answer Question 28. Overall, answers frequently lacked depth and coherence.