Summary report of the 2018 ATAR course examination: Plant Production Systems

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Plant Production Systems

<table>
<thead>
<tr>
<th>Year</th>
<th>Number who sat</th>
<th>Number of absentees</th>
</tr>
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<tr>
<td>2018</td>
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<td>2016</td>
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Examination score distribution–Written

Summary
Attempted by 54 candidates Mean 60.96% Max 80.16% Min 31.72%

Overall, it appeared the examination provided the level of complexity of previous years. The range of marks through the sections was consistent with 2017.

Section means were:
Section One: Multiple-choice  Mean 73.52%
Attempted by 54 candidates  Mean 14.70/(20)  Max 18.00  Min 10.00
Section Two: Short answer  Mean 63.35%
Attempted by 54 candidates  Mean 31.67/(50)  Max 42.20  Min 16.97
Section Three: Extended answer  Mean 48.61%
Attempted by 54 candidates  Mean 14.58/(30)  Max 23.25  Min 3.75

General comments
Written feedback from teachers was mostly positive in relation to the breadth and depth of the examination. There was a lack of knowledge by some candidates in the areas of experimental design and the analysis and interpretation of data. While there was an improvement in planning the responses in the extended answer from past years, those candidates who did little planning scored poorly.

Advice for candidates
• Read the question carefully and utilise the allocated marks to maximise your mark.
• When ‘explain’ is used in a question it is asking you to apply your knowledge whereas ‘describe’ is looking for knowledge.
• An in-depth knowledge of at least one plant enterprise is invaluable. The depth of knowledge needs to include breeding, growing, harvesting and marketing and provide the marker with confidence that you have done your research.
• You do not lose marks for dissecting questions or writing planning notes next to the question. It is a skill that needs to be practiced.
Advice for teachers

- Candidates need to be provided with opportunities to practice answering describe and explain questions.
- Candidates need to have a better understanding of the scientific approach, starting at the hypothesis, and interpreting data.
- Identifying the source of plant enterprise market feedback is not well understood but interpreting the feedback is.
- Calculating nutrient requirements and selecting a suitable fertiliser requires a greater level of understanding and practical application.
- Some candidates are using irrigation as the answer to lower rainfall. Irrigation areas are undergoing similar problems to dryland farming due to lower recharge of supplies. Irrigation needs to be taught in context.

Comments on specific sections and questions

Section One: Multiple-choice (20 Marks)
The multiple-choice section was well answered, apart from Questions 2, 7 and 10. Question 2 related to gross margins, with a large number of candidates including a new machinery shed as a cost against the crop. Question 7 asked for the critical aspect of nutrient absorption, with many candidates answering temperature or light, both of which are not critical. Question 10 asked when duty of care was initiated, meaning when it is first introduced; however, many candidates selected the start of each day, when duty of care is reinforced.

Section Two: Short answer (109 Marks)
Most questions in the short answer section were answered well. Mean scores were greater than 50% for Questions 21 to 26. Candidates did not perform as strongly on Question 27 and their knowledge of experimental control and replication, as well as standard error, appeared to be limited.

Section Three: Extended answer (40 Marks)
The mean score in the extended answer section of the examination was 48.61%. For Question 28, which was compulsory, the mean score was less than half of the available marks, with most candidates struggling to apply their knowledge. Question 29 was the more popular choice with respect to the non-compulsory questions, being chosen by the majority of candidates.