2018 Agricultural Production Subject Assessment Advice

Overview

Subject assessment advice, based on the previous year’s assessment cycle, gives an overview of how students performed in their school and external assessments in relation to the learning requirements, assessment design criteria, and performance standards set out in the relevant subject outline. They provide information and advice regarding the assessment types, the application of the performance standards in school and external assessments, and the quality of student performance.

Teachers should refer to the subject outline for specifications on content and learning requirements, and to the subject operational information for operational matters and key dates.

School Assessment

Assessment Type 1: Agricultural Reports

Students complete three agricultural reports. Two reports have a practical focus, and one report has a focus on science as a human endeavour in an agricultural context.

Both assessment design criteria, Investigation, Analysis and Evaluation, and Knowledge and Application, are used for this assessment type. Student evidence in the Agricultural Reports should focus on the science inquiry skills, explain connections with science as a human endeavour and apply the key agricultural understandings. In at least one practical investigation, students deconstruct a problem and design a method to investigate one aspect of the problem. Students should be encouraged to trial and/or research aspects of their proposed design before they write their final method.

The more successful responses commonly:

* deconstructed open-ended problems that had several possible aspects to explore that allowed opportunities for individual design and investigation of an uncertain outcome
* provided a clear, considered, individual design of an experimental investigation which included a testable hypothesis, independent and dependent variables, and controlled variables
* used research and/or trials to help justify the proposed method for an investigation
* discussed trends and errors specifically in terms of the data collected in practical investigations
* had clear and succinct analysis and evaluation contained within the word count
* were able to justify results that did not show a clear trend in terms of sources of uncertainty
* discussed the validity of the conclusion in reference to the parameters of the investigation
* supported the discussion in the SHE investigation with substantial, well-referenced research
* specifically linked key SHE concepts to examples in the SHE investigation.

The less successful responses commonly:

* were limited by too much scaffolding in the task
* had little opportunity to develop an individual design and very little evidence of the deconstruction of a problem
* had limited justification of the design procedure
* discussed theoretical errors without acknowledging the significance of these on the data collected and hence on the conclusion
* displayed a poor understanding of errors, mistakes, precision and reliability of results
* responded more to theoretical questions rather than discussing the data collected in practical investigations
* did not identify key SHE concepts in the examples chosen for the SHE investigation
* did not explain the interaction between the relevant agricultural science and society in the SHE investigation
* displayed little higher-order thinking due to very simple tasks that were not at a Stage 2 standard.

Assessment Type 2: Applications

Students undertake three applications tasks, with at least one of these tasks done under direct teacher supervision within a maximum of 90 minutes of class time.

Both assessment design criteria, Investigation, Analysis and Evaluation, and Knowledge and Application, are used for this assessment type. Student evidence in the Applications tasks should focus on the key agricultural understandings, apply science inquiry skills, and explain connections with science as a human endeavour.

The more successful responses commonly:

* used opportunities to present knowledge, understanding, application and analysis in a variety of tasks such as a viva with the teacher, a practical activity or an oral/multimedia presentation
* responded to different question types of varying complexity in new and familiar contexts, thus being able to demonstrate deep understanding
* succinctly analysed and explained data from graphs, diagrams and unfamiliar information sources
* selected and explained SHE concepts from information provided.

The less successful responses commonly:

* responded to questions requiring predominately recall of learned facts and recording of information and little application or analysis of agricultural practices.

# External Assessment

Assessment Type 3: Production Investigation

General comments

The purpose of this investigation is for students to conduct their own individual practical investigation that is based on a primary production enterprise in agriculture. They submit a production plan and a production report. The specific features used to assess this task are IAE1, IAE2, IAE3, IAE4, KA1 and KA4.

Students and teachers must discuss the proposed plans before they are finalised to check that animal welfare has been properly considered

Some students’ work exceeded the word count, often due to information presented in tables mistakenly considered not to be included in the word count. All of a student’s own words are included in the word count. Markers do not read past the word limit and so concluding paragraphs are not assessed.

The more successful responses commonly:

* included justification for the resources used
* selected one of several possible marketing strategies and justified this selection
* explained the importance of the purpose and design of the investigation to industry in terms of factors such as food production, trade opportunities, scale, economics, and employment
* used only summary data for graphs that directly addressed the stated production goals
* compared the goals and results of the investigation with industry averages in tables and graphs
* explained reasons for differences between the goals and the actuals for both production and finances, and used industry relevant concepts to justify their conclusions
* evaluated the design by explaining how the data collected was affected by limitations in the method and suggesting improvements to minimise these effects
* organised the report using section headings and used future tense for the plan and past tense for the report.

The less successful responses commonly:

* set unrealistic production goals and used methods that did not mirror industry practice due to minimal background research
* presented an incorrect layout for the gross margin prediction with little or no explanation of how the figures were calculated
* omitted important features that contribute to the gross margin such as items to be used that have been purchased previously, true industry values for labour (even if the student is not actually having to pay it) and a value for stock on hand at the end of the investigation
* had no real marketing strategy, such as ‘give away to friends’, or did not consider the legal requirements for marketing
* did not complete the report to as high a standard as the plan
* provided little background in the introduction in terms of relevant agricultural concepts or research findings
* presented inappropriately formatted tables and graphs
* provided little production data
* drew weak conclusions with no industry links, sometimes as a direct consequence of choosing a hobby enterprise
* attempted to discuss random and systematic errors, which is not appropriate for this task
* compared results from two trial groups rather than comparing a forecast with a result
* presented reports that were research-based rather than based on practical work. This reduced the amount of evidence presented that could be assessed against many of the required specific features for this task.