

**2004 HSC Notes from
the Marking Centre
Primary Industries**

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2004 HSC NOTES FROM THE MARKING CENTRE

PRIMARY INDUSTRIES

Introduction

This document has been produced for teachers and candidates of the Stage 6 Primary Industries course. It provides comments based on responses to the 2004 Higher School Certificate examination. This report highlights the relative strengths and weaknesses of the candidates' responses in each question.

It is essential that this document be read in conjunction with the relevant syllabus, the 2004 Higher School Certificate examination, the marking guidelines and schemes developed from these and other support documents that have been developed by the Board of Studies to assist in the teaching and learning of Primary Industries.

General comments

In 2004, 520 candidates presented for the Higher School Certificate examination in this subject, an increase of 11.6 %.

The responses in section II indicate that many candidates have a sound general understanding of the subject.

The responses in section III indicate that candidates generally find these questions challenging and have poor understanding of the key terms as set out in the Glossary of Key Terms. Candidates who demonstrated a sound understanding of these terms were generally able to gain access to the higher marks available through their ability to thoroughly interpret and answer the question that was asked.

Many responses focused only on part of the question, providing extensive responses to this part, and largely ignoring other aspects of the question. Few candidates were able to comprehensively answer all aspects of the questions in Section III.

Section I

Multiple Choice

Question	Correct Response
1	D
2	A
3	C
4	B
5	A
6	B
7	A
8	A

Question	Correct Response
9	D
10	A
11	A
12	C
13	C
14	D
15	B

Section II

All questions in this section are compulsory.

Question 16 (6 marks)

Most candidates were able to access some marks in this question. The candidates were required to construct an ordered set of safe operating procedures that included at least four stages: preparation, application, clean up and record keeping.

Better responses identified a range of operating procedures and showed a clear order of preparation, application, clean up and record keeping. There was a clear inference to risk assessment and control or minimisation. Application was linked to information provided on the label.

Many candidates were not able to access the higher marks because they did not refer to ‘read the label’ or did not refer to all four stages. Better responses identified procedures for preparation, application and clean up but not record keeping.

Poorer responses described the process of vaccinating steers, or preparation, with little reference to safe operating procedures, reading the label, clean up or record keeping.

Question 17 (8 marks)

The majority of candidates were able to extract some information from the stimulus material provided, but few were able to interpret or describe its relevance.

(a) Better responses identified the main features of the critical information from the placard.

Many responses identified some information, but did not comment on the critical elements or did not give the features of the identified information. Poorer responses simply listed or copied the information directly from the placard with no description or comment.

(b) Better responses were able to describe two hazards and a range of control measures. Most responses identified the relationship between the Hazchem code and the *notes for guidance* and described in detail the correct control measures to be applied and in the correct sequence.

Poorer responses could only identify some of the hazards or control measures, but did not describe them. Others simply described a generalised set of control measures that could be used in the case of any chemical spill, or simply copied the information provided in the *notes for guidance* table.

Question 18 (8 marks)

(a) The mark was awarded for the correct answer with the correct units.

(b) Candidates were generally able to provide one consequence of application rates that were too high and one consequence for rates that were too low. Better responses drew out implications from the consequences identified. Poorer responses only identified one consequence.

- (c) Most candidates were able to identify some non-chemical pest control methods and demonstrated a basic understanding of integrated pest management. Better responses included a clear definition of IPM and an appropriate example. Poorer responses provided a limited description of IPM and did not identify non-chemical control methods.

Question 19 (7 marks)

Candidates who gained full marks in this question demonstrated a thorough knowledge of chemical registration, withholding period and calculation of application rates.

- (a) This part was poorly answered, with very few candidates able to nominate an appropriate option. Most candidates recognised that the farmer could not use the Insecticide AAA in NSW.
- (b) Most candidates were able to state the meaning of the term ‘withholding period’ and were able to find the relevant information on the label. Better responses provided the implications for a farmer contravening the withholding period.
- (c) Very few candidates were able to correctly complete the calculations. Some candidates who completed the calculations made errors in the placement of the decimal point. Most candidates were able to provide characteristics and features on the way the chemical should be applied.

Question 20 (6 marks)

- (a) The majority of candidates were able to calculate the weekly wage. Better responses included working. Poorer responses showed no working, failed to use appropriate units, and had the incorrect answer.
- (b) Better responses showed working and identified the two calculations necessary to determine the employer’s total cost. Poorer responses included only the calculation of the superannuation payable or the employee’s gross earnings less the superannuation payable.
- (c) Most candidates were able to calculate the employee’s gross earnings for the 40 hours plus the Sunday. When calculating the tax rate, some candidates confused this with the superannuation calculation in (b), and subtracted the superannuation payment from the gross earnings, prior to calculating the tax payable. Many candidates could not follow the steps required to calculate the net pay. Others gave an answer without showing how they had derived it.

Section III

Candidates were required to answer TWO questions (out of three) from this section.

Question 21 (15 marks)

This question was attempted by 363 candidates.

Most responses demonstrated an understanding of emergency procedures. Many responses clearly identified the steps in emergency procedures, although not necessarily in order of priority. Most responses identified short-term and long-term consequences, but did not directly link these to possible implications.

Better responses first identified the need for recognising the potential danger to the first person at the scene, and the subsequent use of PPE to avoid contamination. These responses sought to identify the chemical through reading the label on the drum, asking the driver or referring to the placard on the truck. This was followed with the use of DRABC, phoning for assistance, isolation of the accident sight and/or containment of the spill.

Weaker responses did not recognise the need to identify the chemical or potential danger first, or only identified a limited range of strategies. The number of steps included in these responses was also limited.

Better responses were able to identify the potential short-term and long-term consequences as well as the implications of the spill. Most implications identified were generally broader than the farm or spill site.

Weaker responses could only identify some consequences and did not describe or link these to broader implications. Many responses simply provided a list of short-term and long-term consequences.

Question 22 (15 marks)

340 candidates attempted this optional question.

Nearly all candidates were able to identify two potentially hazardous farm practices. Better responses used specific activities /practices while poorer responses tended to use very general practices such as machinery operation, which made it difficult to relate control measures to specific risks.

Most candidates were able to describe a range of risks associated with the hazardous farm practices they had identified. Control measures were generally explained well and related to the risks identified. Better responses described the risks in detail while poorer responses included a list of hazards.

Candidates generally had some difficulty in analysing the process used to assess risks. Better responses described the risk assessment process with examples of its application, and used the hierarchy of control to give examples of control measures for each risk identified.

Responses in the mid-range may have acknowledged the hierarchy of control but did not use it to control the risks identified earlier.

Poorer responses often just listed hazards associated with the identified activity without acknowledging any process of risk assessment. Also, these responses just listed control measures.

Question 23 (15 marks)

375 candidates attempted this question.

The majority of responses provided a range of factors for the storage, handling and use of chemicals. Most described in detail the requirements for safe storage and recognised the importance of reading the chemical label and the use of Personal Protective Equipment (PPE). Better responses showed a good understanding of the safe use of chemicals including reducing the negative effects on the environment. Most were able to provide a broad range of factors associated with transport and use.

Poorer responses tended to only list the requirements without explaining their importance. Many combined the factors for use and handling into one simple statement rather than a description. Few of these responses provided a range of factors that needed to be considered for safe disposal of chemical containers.

Better responses clearly identified the link between factors involved in the safe storage, handling, use and disposal to the relevant legislative requirements. These clearly explained how the factors assisted in meeting the requirements, by quoting the requirements of the Pesticide Act relevant to application or storage. Responses in the mid-range included statements that were loosely connected to legislation in general, such as OHS, without demonstrating any knowledge of the requirements of that legislation. Poorer responses failed to identify any legislation or any requirements of legislation, or simply did not answer this part of the question.

Primary Industries

2004 HSC Examination Mapping Grid

Question	Marks	Unit of competency / Element of competency
Section I		
1	1	4A
2	1	1A
3	1	2010/2011/2012
4	1	2009/2012
5	1	2008
6	1	2006
7	1	2005
8	1	2009
9	1	2A
10	1	3A/2009
11	1	2A/5A
12	1	2007
13	1	1A
14	1	2012/2006
15	1	6A
Section II		
16	6	3A/2005/2007/2010
17	8	2011/2012
18	8	2006/2007
19	7	2006/2007
20	6	1A/6A
Section III		
21	15	4A/5A/2011
22	15	1A/2A/4A
23	15	3A/2008/2009/2010

2004 HSC Primary Industries Marking Guidelines

Section II

Question 16

Competencies assessed: AG CORE 3A, 2005, 2007, 2010

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Demonstrates a thorough understanding of risk control • Identifies a comprehensive range of safe operating procedures which should cover preparation, application, clean-up and record keeping. Must include 'Read the Label' as one of the procedures • Operating procedures are ordered 	6
<ul style="list-style-type: none"> • Demonstrates an adequate understanding of risk control • Identifies some safe operating procedures which cover some of the identified stages. Must include 'Read the label' as one of the procedures 	4-5
<ul style="list-style-type: none"> • Demonstrates some understanding of risk control • Identifies some relevant safe operating procedures 	2-3
<ul style="list-style-type: none"> • Demonstrates a limited knowledge of the task • Demonstrates limited understanding of safe operating procedures 	1

Question 17 (a)*Competencies assessed: 2011, 2012***MARKING GUIDELINES**

Criteria	Marks
• Identifies and gives the main features of the critical information from the placard	3
• Identifies and gives features of some relevant information	2
• Lists codes or information from placard	1

Question 17 (b)*Competencies assessed: 2011, 2012***MARKING GUIDELINES**

Criteria	Marks
• Demonstrates the ability to extract details of hazards and control measures from the information provided • Provides characteristics and features of hazards and controls by interpreting the Hazchem code, dangerous goods diamond, and the description of the chemical	5
• Demonstrates the ability to extract and interpret some details of hazards/control measures from the information provided	3–4
• Demonstrates limited ability to extract and/or interpret information	1–2

Question 18 (a)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
• Correct answer, with correct units	1

Question 18 (b)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
• Provides the characteristics and features of the possible implications of applying chemicals at too low or too high a rate	3
• Lists a range of implications of applying chemicals at too low or too high a rate	2
• Provides one implication of applying chemicals at the incorrect rate	1

Question 18 (c)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates a clear understanding of the principles of an IPM program• Identifies the main features of an IPM program incorporating a number of strategies	4
<ul style="list-style-type: none">• Demonstrates some understanding of an IPM program• Identifies some non-chemical control measures	2–3
<ul style="list-style-type: none">• Identifies IPM as a range of strategies including non-chemical control measure(s)	1

Question 19 (a)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Identifies that the chemical is not registered for use in NSW and an alternative chemical or method should be sought or a permit applied for to use AAA insecticide	1

Question 19 (b)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Demonstrates clear understanding of the term <i>withholding period</i>, making the relationship between the label information and the given scenario evident	3
<ul style="list-style-type: none">• Demonstrates basic understanding of the term <i>withholding period</i> with an attempt to relate the label information and the scenario	2
<ul style="list-style-type: none">• Demonstrates limited understanding of the term <i>withholding period</i> <p>OR</p> <ul style="list-style-type: none">• Extracts some relevant information from the label	1

Question 19 (c)*Competencies assessed: 2006, 2007***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Correct answer with working• Critical comments from label incorporated into description	3
<ul style="list-style-type: none">• Correct answer with working, but without any critical comments from the label OR <ul style="list-style-type: none">• Valid working leading to an incorrect answer but incorporating critical comments from the label	2
<ul style="list-style-type: none">• Critical comments supplied OR <ul style="list-style-type: none">• Shows working with incorrect answer	1

Question 20 (a)*Competencies assessed: Ag Core 1A, 6A***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Correct answer	1

Question 20 (b)*Competencies assessed: Ag Core 1A, 6A***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Correct answer, using answer to Q20(a)	2
<ul style="list-style-type: none">• Calculates 9% of answer to Q20(a)	1

Question 20 (c)*Competencies assessed: Ag Core 1A, 6A***MARKING GUIDELINES**

Criteria	Marks
• Correct answer	3
• Shows evidence of Sunday plus other hours with 38% tax	2
• Calculates employees NET pay	1

Section III

Question 21

Competencies assessed: 4A, 5A, 2011

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Provides features and characteristics of appropriate procedures for the first person on the scene Identifies a range of potential short and long-term consequences of the spillage Draws out implications of the spillage Organises information in a well-reasoned and cohesive response Communicates ideas and information using precise industry terms 	13–15
<ul style="list-style-type: none"> Provides features and characteristics of appropriate procedures Identifies some potential short and long-term consequences of the spillage Attempts to draw out implications of the spillage Organises information in a structured response Communicates ideas and information using industry terminology 	10–12
<ul style="list-style-type: none"> Describes some appropriate procedures Identifies some potential consequences of the spillage Shows some evidence of consideration of implications Organises information to a limited extent Uses simple relevant industry terminology 	7–9
<ul style="list-style-type: none"> Lists some appropriate procedures Identifies and describes some consequences Uses simple industry terms 	4–6
<ul style="list-style-type: none"> Lists some procedures <p>OR</p> <ul style="list-style-type: none"> Lists some of the consequences of the spillage 	1–3

Question 22

Competencies assessed: 1A, 2A, 4A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Identifies two potentially hazardous practices • Gives main features of relevant hazards and risks • Shows evidence of the use of the hierarchy of control • Gives a range of appropriate control measures for implementation • Organises information in a well-reasoned and cohesive response • Communicates ideas using precise industry terms 	13–15
<ul style="list-style-type: none"> • Identifies two potentially hazardous practices or situations • Gives some features of relevant hazards and risks • Shows evidence of a strategy for putting control measures in place • Shows evidence of ranking risks • Organises information in a structured response • Communicates ideas using relevant industry terms 	10–12
<ul style="list-style-type: none"> • Identifies two potentially hazardous practices • Lists some risks • Gives some appropriate control measures • Organises information to some extent • Uses simple relevant industry terminology 	7–9
<ul style="list-style-type: none"> • Lists two potentially hazardous practices • List some risks and identifies some control measures • Uses simple industry terms 	4–6
<ul style="list-style-type: none"> • List at least one potentially hazardous practices • Lists some risks or control measures 	1–3

Question 23*Competencies assessed: 3A, 2008, 2009, 2010***MARKING GUIDELINES**

Criteria	Marks
<ul style="list-style-type: none">• Comprehensively describes factors for each of the four areas• Relates the importance of factors including reference to legislative requirements• Organises information in a logical and structured response• Communicates ideas using precise industry terms	13–15
<ul style="list-style-type: none">• Describes factors for each of the four areas• Relates factors with some reference to legislative requirements• Response shows evidence of planned structure• Communicates ideas using precise industry terms	10–12
<ul style="list-style-type: none">• Describes briefly factors for all of the four areas• Relates the importance of factors• Response shows some evidence of structure• Uses simple relevant industry terms	7–9
<ul style="list-style-type: none">• Lists some factors for all of the areas or briefly describes some of the areas• Makes limited reference to their importance• Uses simple industry terms	4–6
<ul style="list-style-type: none">• Lists some factors for some of the areas	1–3