

**2005 HSC Notes from
the Marking Centre
Primary Industries**

© 2006 Copyright Board of Studies NSW for and on behalf of the Crown in right of the State of New South Wales.

This document contains Material prepared by the Board of Studies NSW for and on behalf of the State of New South Wales. The Material is protected by Crown copyright.

All rights reserved. No part of the Material may be reproduced in Australia or in any other country by any process, electronic or otherwise, in any material form or transmitted to any other person or stored electronically in any form without the prior written permission of the Board of Studies NSW, except as permitted by the *Copyright Act 1968*. School candidates in NSW and teachers in schools in NSW may copy reasonable portions of the Material for the purposes of bona fide research or study.

When you access the Material you agree:

- to use the Material for information purposes only
- to reproduce a single copy for personal bona fide study use only and not to reproduce any major extract or the entire Material without the prior permission of the Board of Studies NSW
- to acknowledge that the Material is provided by the Board of Studies NSW
- not to make any charge for providing the Material or any part of the Material to another person or in any way make commercial use of the Material without the prior written consent of the Board of Studies NSW and payment of the appropriate copyright fee
- to include this copyright notice in any copy made
- not to modify the Material or any part of the Material without the express prior written permission of the Board of Studies NSW.

The Material may contain third party copyright materials such as photos, diagrams, quotations, cartoons and artworks. These materials are protected by Australian and international copyright laws and may not be reproduced or transmitted in any format without the copyright owner's specific permission. Unauthorised reproduction, transmission or commercial use of such copyright materials may result in prosecution.

The Board of Studies has made all reasonable attempts to locate owners of third party copyright material and invites anyone from whom permission has not been sought to contact the Copyright Officer, ph (02) 9367 8289, fax (02) 9279 1482.

Published by Board of Studies NSW
GPO Box 5300
Sydney 2001
Australia

Tel: (02) 9367 8111

Fax: (02) 9367 8484

Internet: www.boardofstudies.nsw.edu.au

ISBN 1741473454

2006028

Contents

Section I 5
Section II 5
Section III 7

2005 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 2005 Higher School Certificate examination. This report highlights the relative strengths and weaknesses of the candidates' responses in each question.

This document should be read along with the relevant syllabus, the 2005 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 2005, 515 candidates presented for the Higher School Certificate examination in this subject.

This is the first time this revised syllabus has been examined. In general, the candidates' knowledge and understanding of the content of this syllabus was good. The structure of the paper and the questions asked were familiar and gave all candidates access to some marks, while still proving a challenge for most.

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

The responses in section III indicate that candidates are still having difficulty interpreting the questions and, particularly, still show a poor understanding of the key terms as set out in the 'Glossary of Key Terms'. Candidates who have a sound understanding of these terms were able to gain access to the higher marks available through their ability to thoroughly interpret and answer the question that was asked.

The quality of answers indicated that the candidates had a high level of knowledge and understanding for these topic areas, particularly OHS, hazard identification, communication strategies and chemical control.

Section I

Multiple choice

Question	Correct response
1	A
2	B
3	A
4	A
5	B
6	B
7	B
8	C
9	B
10	A
11	C
12	A
13	B
14	D
15	D

Section II

All questions in this section are compulsory.

Question 16

- (a) Most candidates were able to achieve one mark by giving a definition of a weed. Weaker responses were not however always precise eg ‘Plant growing which you don’t want where it is or want at all’.
- (b) The majority of candidates were able to give two botanical structures eg roots, leaves and flowers. The weaker responses gave characteristics of a weed and were not able to access any marks.
- (c) The better responses were able to evaluate the relevance and reliability of both sources of information. The average responses were able to give a brief outline of sources of information with an evaluation of one of these sources. The majority of candidates were able to access one mark by identifying two sources of information such as ‘internet and Ag fact sheets’. The weaker responses were not able to evaluate the relevance and the reliability of their responses.

Question 17

- (a) Marks were not awarded to responses that had the incorrect value or units, or to responses that did not include units in their response. The majority of responses were able to score one mark.
- (b) A majority of candidates were able to identify at least one piece of information required for calibration. Better responses identified two pieces of information, for example travel speed, nozzle output, area to be sprayed.

- (c) The best responses were able to identify appropriate steps in a pre-operational check and support their statement; for example, nozzles are checked for wear and output to ensure the correct application rate of chemicals.

Mid-range answers were able to identify a check to be made and what they were looking for.

Weaker responses were able to identify at least one check to be made, but gave no reason why this was necessary.

Question 18

- (a) Responses that either calculated incorrectly or failed to record the units received no marks.
- (b) Most responses obtained marks for using the correct process of the calculation regardless of the resulting answer.
- (c) A majority of responses could access some marks for this question irrespective of the answers for the two previous parts. Better responses stated two reasons with appropriate supporting arguments for both reasons. Mid range-responses either stated two reasons with one supporting argument for three marks or only stated two reasons for two marks.

Weaker responses were only able to state one valid reason.

Question 19

- (a) Very few responses correctly identified the appropriate Act of Parliament that was contravened.
- (b) Very few responses correctly identified the appropriate Government agency responsible for administering the Act.
- (c) The majority of responses listed or named four strategies and were able to indicate at least one main feature of the listed / named strategies. Few responses clearly indicated the main features of four strategies.

Better responses recognised the need to implement strategies that prevented run-off of the loam into the creek, such as improved communication between the nursery and the truck company supplying the loam, relocating or improving the storage area, increasing the awareness of the employee of the impending rainfall or encouraging the driver to make more responsible decisions when unloading the load of loam.

Question 20

- (a) Most responses correctly identified point X as a low pressure system and point Y as a high pressure system.
- (b) The majority of responses indicated that the wind would travel in a clockwise direction around pressure system X. Weaker responses attempted to indicate wind directions using compass directions.
- (c) A majority of responses indicated that the symbol represented a cold front.

- (d) Nearly all responses included an outline of two changes in weather conditions. Many responses identified one possible consequence of the changes in weather on a named agricultural enterprise. Better responses linked the nominated changes in weather conditions with the possible consequences of these changed weather conditions. This may have included the influence of rain, wind, cloud cover, temperature and other weather conditions on a specific crop and or animal enterprise.

Section III

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

Question 21

This question was attempted by 390 candidates (75%).

Most responses identified a range of potential hazards such as runoff and contamination. The better responses identified characteristics and features of the hazard: for example, contamination may result from the excess application of chemicals and may affect the MRL status of a product.

Most responses were able to identify control measures such as ‘do not spray on a windy day’. Better responses could support their answer with a judgement of the effectiveness of the control measure. To access the top marks candidates had to also link their evaluation with the hierarchy of control: for example, a toxic chemical could be substituted with a safer, less toxic chemical that is still effective at controlling the weed, but is less toxic to the chemical user.

Most responses identified the information to be conveyed to adjoining landholders or some communication strategies. Better responses supported the identified information or communication strategies, eg time of spraying to allow the neighbour time to move stock. Middle range responses identified information to be conveyed as well as the method of communication. High range responses were able to identify both the information to be conveyed and the communication strategies as well as providing reasons for why this information and strategies would be used.

Question 22

This question was attempted by 459 candidates (90%).

Many of the responses were able to list some OHS issues associated with the use of machinery and equipment during fence construction.

Most responses related the OHS issues to the implications for worker safety. Most could identify the necessary PPE and environmental hazards. Better responses linked the identified OHS issues to the implications for worker safety and recognised the various relationships between these issues and worker safety.

Many responses listed a basic set of Standard Operating Procedures (SOP), but were unable to clearly link these to the relevant OHS issues.

The responses that received higher marks were able to present a clear and detailed SOP that addressed a significant number of OHS issues and used precise industry terminology.

Question 23

This question was attempted by 187 candidates (36%).

Most responses could state a feature of the weeds' life cycle and many went on to give a detailed outline.

Better responses were able to provide a detailed outline of the weeds' life cycle, its economic and environmental impacts and a range of control measures. They made judgements about the effectiveness of each control measure, linking to their IPM program. They supported arguments for inclusion or exclusion of chemicals in IPM program.

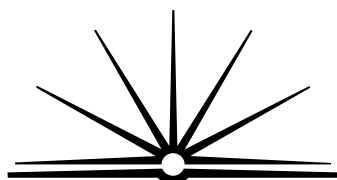
Responses that achieved in the mid-range of marks did address the control measures and / or IPM principles and did include reasons why chemicals should or should not be included in an IPM program.

Weaker responses were able to state a control measure or the principles of an IPM program but did not state the economic and / or environmental impacts of the weed.

Primary Industries

2005 HSC Examination Mapping Grid

Question	Marks	Unit of competency / Element of competency	
Section I			
1	1	RTC2702A	page ref p40
2	1	RTE2503A	page ref 87
3	1	RTC2209A	page ref 15
4	1	RTC2704A	page ref 48
5	1	RTC2801A	page ref 79
6	1	RTC2706A/RTC 2401A (p23)	page ref 70
7	1	RTC2705A	52/55
8	1	RTC2706A	32/61/64/69/74
9	1	RTC2705A	52/53
10	1	RTC2701A	32
11	1	RTC2702A	39/40/41
12	1	RTC2701A(27/30) RTC 2706A	(71)
13	1	RTC2801A	77/83
14	1	RTC2401A	18/24
15	1	RTC2801A	80/81
Section II			
16		RTC2401A/ (treat weeds) RTC2705A/RTC2801A	
17		RTC2706A (apply chemicals under supervision) RTC2701A	
18		RTC2209A (install, maintain and repair fencing)	
19		RTC2702A (observe environmental work practices)	
20		RTE2503A (observe and report on the weather)	
Section III			
21	15	RTE2503A (observe and report on the weather) RTC2801A (participate in marketplace comment) RTC2702A (observe environmental work practices)	
22	15	RTC2209A (install, maintain, repair fencing) RTC2701A (follow OHS procedures)	
23	15	RTC2401A (treat weeds)) RTC2706A (apply chemicals under supervision)	



B O A R D O F S T U D I E S
NEW SOUTH WALES

2005 HSC Primary Industries Marking Guidelines

Section II

Question 16 (a)

Competencies assessed: RTC2401A, RTC2705A

MARKING GUIDELINES

Criteria	Marks
• Correctly defines term	1

Question 16 (b)

Competencies assessed: RTC2401A

MARKING GUIDELINES

Criteria	Marks
• Identifies TWO structures	2
• Identifies ONE structure	1

Question 16 (c)

Outcomes assessed: RTC2401A, RTC2705A

MARKING GUIDELINES

Criteria	Marks
• Describes TWO sources of information about identification and distribution	4
• Makes a judgement about the relevance and reliability of each source	
• Outlines TWO sources of information about weeds, but does not make a judgement about their relevance or reliability	2–3
• Identifies TWO sources of information	1

Question 17 (a)*Outcomes assessed: RTC2706A***MARKING GUIDELINES**

Criteria	Marks
• Correct answer with correct units	1

Question 17 (b)*Outcomes assessed: RTC2701A, RTC2706A***MARKING GUIDELINES**

Criteria	Marks
• States TWO or more pieces of information needed to calibrate the chemical sprayer	2
• States ONE piece of information needed to calibrate the chemical sprayer	1

Question 17 (c)*Outcomes assessed: RTC2701A, RTC2706A***MARKING GUIDELINES**

Criteria	Marks
• Identifies appropriate items for the checklist and gives reasons for including these items	3–4
• Identifies appropriate items for the checklist	1–2

Question 18 (a)*Outcomes assessed: RTC2209A***MARKING GUIDELINES**

Criteria	Marks
• Correct answer with correct units	1

Question 18 (b)*Outcomes assessed: RTC2209A***MARKING GUIDELINES**

Criteria	Marks
• Two correct answers for BOTH plain and barbed wire	2
• One correct answer for EITHER plain or barbed wire	1

Question 18 (c)*Outcomes assessed: RTC2209A***MARKING GUIDELINES**

Criteria	Marks
• Supports TWO reasons with appropriate arguments	4
• States TWO reasons but does not support with appropriate argument	2–3
• States ONE reason for siting the fence	1

Question 19 (a)*Outcomes assessed: RTC2702A***MARKING GUIDELINES**

Criteria	Marks
• Correctly names the Act of Parliament	1

Question 19 (b)*Outcomes assessed: RTC2702A***MARKING GUIDELINES**

Criteria	Marks
• Correctly names government agency	1

Question 19 (c)*Outcomes assessed: RTC2702A***MARKING GUIDELINES**

Criteria	Marks
• Indicates the main features of FOUR strategies	4
• Indicates the main features of TWO or more strategies	3
• Indicates FOUR strategies	2
• List TWO strategies	1

Question 20 (a)*Outcomes assessed: RTE2503A***MARKING GUIDELINES**

Criteria	Marks
• Correctly identifies type of pressure system at BOTH point X AND point Y	2
• Correctly identifies type of pressure system at point X OR point Y	1

Question 20 (b)*Outcomes assessed: RTE2503A***MARKING GUIDELINES**

Criteria	Marks
• Correctly indicates wind direction around pressure system X	1

Question 20 (c)*Outcomes assessed: RTE2503A***MARKING GUIDELINES**

Criteria	Marks
• Correctly identifies symbol	1

Question 20 (d)*Outcomes assessed: RTE2503A***MARKING GUIDELINES**

Criteria	Marks
• Indicates main features of changes in weather conditions that may include temp/rainfall/wind and describes a possible consequence on an agricultural enterprise	3–4
• Identifies changes in weather conditions	1–2

Section III

Question 21

Competencies assessed: RTE2503E, RTC2801A, RTC2702A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> Provides characteristics and features of a significant number of potential hazards including weather Makes a judgement about the effectiveness and suitability of control measures in terms of the hierarchy of controls Supports an argument for the information that is to be communicated Supports a detailed argument for the communication strategies used Organises information in a well reasoned and cohesive response Communicates ideas using precise industry terms 	13–15
<ul style="list-style-type: none"> Provides characteristics and features of a significant number of potential hazards Makes a judgement about the suitability of control measures in terms of their effectiveness Recognises and names a range of the information that is to be communicated Supports an argument for the communication strategies used Organises information in a structured response Communicates ideas using relevant industry terms 	10–12
<ul style="list-style-type: none"> Provides characteristics and features of a number of potential hazards Makes a judgement about control measures in general terms Recognises and names some of the information that is to be communicated Provides an explanation for the communication strategies used Organises information to some extent in their response Uses simple relevant industry terminology 	7–9
<ul style="list-style-type: none"> States a number of potential hazards States some control measures States some information that is to be communicated Uses simple industry terms 	4–6
<ul style="list-style-type: none"> States one potential hazard States some control measures or information that is communicated 	1–3

Question 22

Competencies assessed: RTC2209A, RTC2701A

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Provides a detailed analysis of a significant number of OHS issues related to fencing equipment and machinery • Provides detailed information about the issues and their relationships and their implications for worker safety • Constructs detailed sets of SOP's addressing a significant number of the OHS issues • Organises information in a well reasoned and cohesive response • Communicates ideas using precise industry terms 	13–15
<ul style="list-style-type: none"> • Provides an analysis of a significant number of OHS issues related to fencing equipment and machinery • Provides detailed information about some of the issues and their relationships and their implications for worker safety • Constructs sets of SOP's addressing a significant number of the OHS issues • Organises information in a structured response • Communicates ideas using relevant industry terms 	10–12
<ul style="list-style-type: none"> • Provides description of a number of OHS issues related to fencing equipment and machinery • Outlines the issues and their implications for worker safety • Constructs sets of SOP's addressing a number of the OHS issues • Organises information to some extent in their response • Uses simple relevant industry terminology 	7–9
<ul style="list-style-type: none"> • States a number of OHS issues related to fencing equipment and machinery • States some implications for worker safety • Constructs simple SOP addressing some of the OHS issues • Uses simple industry terms 	4–6
<ul style="list-style-type: none"> • States one OHS issue related to fencing equipment and machinery • States an implication for worker safety 	1–3

Question 23
Competencies assessed: RTC2401A, RTC2706A
MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Provides a detailed outline or diagram of the target weed species life cycle and its economic and environmental impacts • Provides a detailed description of a significant number of different control measures • Makes judgements on the effectiveness of each of these control measures in terms of IPM principles • Provides supported arguments why they have included/not included chemicals in their control programs • Organises information in a well-reasoned and cohesive response • Communicates ideas using precise industry terms 	13–15
<ul style="list-style-type: none"> • Provides an outline or diagram of the target weed species life cycle and its economic and environmental impacts • Provides a description of a significant number of different control measures • Describes the effectiveness of each of these control measures in terms of IPM principles • Provides arguments why they have included/not included chemicals in their control programs • Organises information in a structured response • Communicates ideas using relevant industry terms 	10–12
<ul style="list-style-type: none"> • Provides an outline or diagram of the target weed species life cycle and some of its economic and environmental impacts • Provides a description of TWO or more different control measures • Outlines the effectiveness of some of these control measures in terms of IPM principles • Provides reasons why they have included/not included chemicals in their control programs • Organises information to some extent • Uses simple relevant industry terminology 	7–9
<ul style="list-style-type: none"> • States some of the stages of the target weed species life cycle and some of its economic and environmental impacts or draws a simple diagram • States a number of different control measures • States some IPM principles • Uses simple industry terms 	4–6
<ul style="list-style-type: none"> • States a feature of a weed • Draws a simple diagram • States a control measure or IPM principle 	1–3