



UNIVERSITY OF ESWATINI

MAIN EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR FOUR

COURSE CODE: CPR404/CP408

TITLE OF PAPER: WEED MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS:

1. ANSWER ALL QUESTIONS
2. AVOID LONG MIXED UP ESSAYS. CLEARLY IDENTIFY YOUR ANSWERS TO EACH QUESTION

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QUESTION ONE

(a) Describe four **agronomic situations** where the use of herbicides, compared to other methods of weed control, may pose deleterious consequences.

(b) For each situation, describe factually how you would alleviate the situation.

[20 marks]

QUESTION TWO

Which are more difficult to control; perennial weeds, parasitic weeds, or both type of weeds? Explain your answer.

[20 marks]

QUESTION THREE

Describe four (4) factors affecting success of foliar applications of herbicides.

[20 marks]

QUESTION FOUR

The critical period of crop-weed competition is considered as the shortest time span in the growth of the crop when weeding results in highest economic returns. Elaborate two facts why this concept is problematic and two facts why this concept is helpful in weed management. [20 marks]

QUESTION FIVE

An on-farm field survey was conducted in the five agroecological zones of Eswatini. Farmers were asked to name weeds that were the most difficult to control in their fields. The three weed species in the table were amongst eight species farmers mentioned. Discuss these results and their implications. Clearly number your responses.

Weed genera	Highveld (n=27)		Upper Middleveld (n=17)		Lower Middleveld (n=17)		Lubombo Plateau (n=25)		Lowveld (n=13)		Total (n=99)
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
<i>Cynodon dactylon</i>	15	56	8	47	6	35	10	40	5	39	44
<i>Xanthium strumarium</i>	6	22	1	6	11	65	3	12	8	62	29
<i>Striga asiatica</i>	3	11	0	0	1	6	0	0	1	8	5

Source: Mncube et al. 2017

[20 marks]