MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN HORTICULTURE

SHC 825: FERTILIZER AND PESTICIDE APPLICATION

Date: 25th July, 2013   Time: 8.30 – 11.30 a.m.

SHC 825: FERTILIZER AND PESTICIDE APPLICATION

Instructions:
Answer ALL Questions in section A and ANY THREE from section B.
Duration: 3 hrs.

SECTION A: *Answer ALL questions*

1. Briefly discuss the disadvantages of improper pesticide calibration. **(4 marks)**

2. What three (3) major factors affect nozzle output? **(3 marks)**

3. Briefly describe three (3) factors which need to be considered when selecting the spray quality of a pesticide? **(3 marks)**

4. Outline how air assistance affects the effectiveness of spray application of a pesticide. **(1 mark)**

5. Differentiate between fogging and mist spray application of pesticide. **(2 marks)**

6. What is one way to ensure that the material in a granular spreader is applied at a regular rate? **(1 mark)**

7. A pesticide label for a granular formulation says to apply 250 ml per 100 m2, using a compressed air sprayer. A gardener tries the sprayer on a 5 m2 test area, and uses 15 mL of spray. Is the application rate correct? If not, what can the gardener do to change the application rate to comply with the label instructions? **(2 marks)**

8. Outline advantages and disadvantages of granule spreaders versus dusters? **(4 marks)**

9. Briefly discuss the general steps during the calibration of pesticide spray equipment. **(4 marks)**

SECTION B: Answer ANY THREE Questions

10. Discuss the reasons why granular pesticides are formulated. **(15 marks)**

11. Discuss the good spraying techniques for grape fruits. **(15 marks)**

12. Discuss stubble retention as a strategy to practice conservation agriculture and its effect on the efficiency of pesticide application. **(15 marks)**

13. Discuss the importance of pesticide and fertilizer use in alleviating food insecurity with particular reference to urea ammonium nitrate fertilizer and fungicides. **(15 marks)**