Summer Examinations 2016

LEM204016N

Module Title: Sustainable Crop Management
Level: Five
Time Allowed: Two hours

Instructions to students:
• Enter your student number **not** your name on all answer books.
• Answer **three** out of **five** questions.
• All questions are equally weighted.
• Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
• Neither books nor notes may be taken into the examination.

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Answer **three** out of **five** questions.

**Question 1**

a. Explain, with the use of examples, what is meant by precision farming.  
   (13 marks)

b. Why can the introduction of precision techniques be considered to be more sustainable than conventional agricultural practices.  
   (12 marks)

   (Total 25 marks)

**Question 2**

a. Describe what is meant by Integrated Crop Management (ICM) and explain why there is an increasing use of its techniques by UK farmers.  
   (15 marks)

b. Provide two example of how integrated crop protection techniques can be used to reduce the reliance on chemical inputs.  
   (10 marks)

   (Total 25 marks)

**Question 3**

a. Describe the principles of biological control in relation to crop protection and identify its potential sustainable advantages and disadvantages compared to programmes incorporating pesticide use.  
   (10 marks)

b. Why has biological control increased in importance with UK crop production?  
   (5 marks)

c. Describe two examples of biological control practiced commercially within crop production in the UK.  
   (10 marks)

   (Total 25 marks)
Question 4

a. Explain the current international situation relating to Genetically Modified (GM) crop production and consumption. (10 marks)

b. Discuss the factors that have prevented commercial GM production in the UK and identify the major arguments both for and against its introduction. (10 marks)

c. Suggest how the production of GM crops could be considered to be more sustainable than non GM production. (5 marks)

(Total 25 marks)

Question 5

a. Explain what is meant by ‘Greening’ under the Basic Payments Scheme of farm support. (7 marks)

b. Describe its requirements in relation to Crop Diversification, Permanent pasture and Ecological Focus Areas (EFA’s). (12 marks)

c. Discuss the effect of these requirements in terms of sustainable farming. (6 marks)

(Total 25 marks)

End of Paper