

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0098123 **-Session-1989-90**
-Superclass- SD

-Title- CEREAL CROP PRODUCTION (x¹/₂)

-DESCRIPTION-

Purpose This module is designed to enable the student to acquire a knowledge of the production and marketing of cereal crops.

The module is aimed at craft level Agricultural students and may be taught as part of a programme of agriculture modules.

It is designed to complement 68166 Cereal Harvest and Storage.

Preferred Entry Level 98051 Fertilisers: Quantity and Application
98033 Introduction to Plant Protection

Learning Outcomes The student should:

1. explain the influence of grain quality on the potential market;
2. select suitable cultivars for given situations;
3. plan a crop production programme for a given situation.

Content/Context Corresponding to Learning Outcomes 1-3:

1. Markets available for cereals. Influence of market on - selection of variety, fertiliser programme, chemical treatment, harvesting, storage systems.
2. Characteristics of wheat, barley, oats, rye and triticale. Role of winter and spring varieties. Selection of varieties for different soil types, climates, management systems.

3. Main points of cereal husbandry - machinery requirements timing of cultivation, sowing, fertiliser application, spray treatment. Required nutrient levels and soil acidity (pH). Awareness of common weeds, pests and diseases and control methods available. Cereal growth stages.

Suggested Learning and Teaching Approaches

This module may require some classroom teaching, together with visits to growers, laboratory sessions, use of advisory and trade literature.

Assessment Procedures

Acceptable performance in the module will be satisfactory achievement of all the performance criteria specified for each Learning Outcome.

The following abbreviations are used below:

- LO Learning Outcome
 IA Instrument of Assessment
 PC Performance Criteria

LO1 EXPLAIN THE INFLUENCE OF GRAIN QUALITY ON THE POTENTIAL MARKET

PC The student should:

- (a) outline factors which influence grain quality;
 (b) list characteristics of a crop for a potential market;
 (c) record information clearly.

IA Assignment

The student will be set an assignment to test the understanding of factors influencing grain quality for two different types of market. The student should explain how the grain quality influences the chosen market.

The student will be expected to explain the effect of 5 factors which influence grain quality.

For the two market situations the student will be expected to outline 4 characteristics of 2 different crops.

Satisfactory achievement of the Learning Outcome will be based on the student explaining 5 factors influencing grain quality and outlining 4 crop characteristics for each situation.

LO2 SELECT SUITABLE CULTIVARS FOR GIVEN SITUATIONS

PC The student should:

- (a) select cultivars for given situations;
- (b) justify selection of each cultivar.

IA Structured Question

The student will be presented with five situations for growing crops. The information will contain details of farming systems and the potential market for each of the situations.

The student will use the given information to select an appropriate cultivar for each situation.

The student will be expected to justify the choice of each cultivar by applying good husbandry practices.

Satisfactory achievement of the Learning Outcome will be based on the student identifying a suitable cultivar for four of the given situations with supporting evidence for each selection.

LO3 PLAN A CROP PRODUCTION PROGRAMME FOR A GIVEN SITUATION

PC The student should:

- (a) state sequence and timing of operations;
- (b) calculate quantities of materials;
- (c) list essential equipment.

IA Assignment

The student will be presented with an exercise which tests the skills and knowledge required to prepare a growing programme for a given crop.

The student with the use of a flow chart will be expected to detail the following:

- (i) pre-sowing seed treatment
- (ii) the timing and sequence of operations and equipment to establish crop
- (iii) crop nutrition programme
- (iv) crop care programme.

The student should make use of current commercial and advisory literature to determine the above programme.

Satisfactory achievement of the Learning Outcome will be based on the student producing a crop production programme which would be effective in a practical situation.

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