

-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
GLASGOW G2 7NQ**

NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	1152100	-Session-	1990-91
-Superclass-	SG		

-Title-	PLANTING/BEATING UP
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-DESCRIPTION-

Purpose	This module is designed to enable the student to plant trees in a forest situation using the notch planting method. In addition the student will be able to use the correct procedures for tree plant storage and handling.
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It is aimed at trainees new to planting forest trees.

Preferred Entry Level	No formal entry requirements.
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Outcomes	The student should: <ol style="list-style-type: none">1. apply the correct procedures for tree plant storage and handling;2. carry out new planting using the notch method;3. beat up using the notch method of planting.4. fit individual tree shelters to transplants/whip.
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Assessment Procedures	Acceptable performance in the module will be satisfactory achievement of all the Performance Criteria specified for each Outcome.
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The following abbreviations are used below:

IA	Instrument of Assessment
PC	Performance Criteria

Note: The Outcomes and PCs are mandatory and cannot be altered. The IA may be altered by arrangement with SQA. (Where a range of performance is indicated, this should be regarded as an extension of the PCs and is therefore mandatory.)

OUTCOME 1 APPLY THE CORRECT PROCEDURES FOR TREE PLANT STORAGE AND HANDLING

- PCs
- (a) The outline of the reasons for careful tree plant handling, storage and planting is comprehensive.
 - (b) The storage of transplants is in accordance with the way in which they are delivered.

IA(1)Restricted Response Questions for Performance Criterion (a)

The student will be presented with restricted response questions to test the knowledge required for tree plant handling and storage.

The exercise will consist of 10 restricted response questions on Performance Criterion (a).

Satisfactory achievement of this part of the Outcome will be demonstrated by 7 correct responses.

IA(2)Practical Exercise for Performance Criterion (b).

The student will be set a practical exercise to test the application of knowledge and skill required for tree plant handling and storage.

The student will be expected to store transplants in accordance with the manner in which they are delivered.

The assessment may be carried out with the aid of an observation checklist.

Satisfactory achievement of this part of the Outcome will be based on the student meeting all the Performance Criteria.

OUTCOME 2 CARRY OUT NEW PLANTING USING THE NOTCH METHOD

- PCs
- (a) The selection of a serviceable planting tool is appropriate to the job.
 - (b) The selection of viable stock for planting is appropriate to the planting site.

- (c) The ranging of the planting line on unprepared ground is correctly aligned.
- (d) The preparation of the plant location is according to site conditions.
- (e) The protection of the plants prior to planting is correct in order to avoid damage.
- (f) The prescribed alignment and spacing are correct.
- (g) The planting of the trees is correct in terms of the depth and avoidance of root damage.
- (h) The planted tree is firm, vertical and undamaged.

IA Practical Exercise

The student will be set a practical exercise to test the application of knowledge and skills required to notch plant forest trees.

The student will be expected to notch plant forest trees on available site types, meeting all the standards specified in the Performance Criteria.

The assessment may be carried out with the aid of an observation checklist.

Satisfactory achievement of this part of the Outcome will be based on the student meeting all the Performance Criteria.

OUTCOME 3

BEAT UP USING THE NOTCH METHOD OF PLANTING

PCs

- (a) The assessment of previously planted stock is correct in terms of the following:
 - (i) is it dead?
 - (ii) if not dead will it survive?
 - (iii) is it group deaths?
 - (iv) how many to be replaced?

IA Practical Exercise

The student will be set a practical exercise to test the application of knowledge and skills required to beat up using the notch method of planting.

The student will be expected to beat up a given area using the notch method of planting, meeting the standards specified in the Performance Criterion.

The assessment may be carried out with the aid of an observation checklist.

Satisfactory achievement of this part of the Outcome will be based on the student meeting the Performance Criterion.

**OUTCOME 4 FIT INDIVIDUAL TREE SHELTERS TO
TRANSPLANTS/WHIPS**

- PCs (a) The definition of the functions of the tree shelters is correct.
- (b) The outline of tree shelter erection is correct.
- (c) The erection of a tree shelter is correct in order that the tree shelter creates a micro-climate conducive to tree growth.
- IA Short Answer Questions for Performance Criteria (a) and (b).

The student will be set short answer questions to test the knowledge related to fitting individual tree shelters.

The exercise will consist of 7 short answer questions allocated as follows:

- (i) 5 on Performance Criteria (a)
- (ii) 2 on Performance Criteria (b)

Satisfactory achievement of this part of the Outcome will be demonstrated by producing 7 correct responses.

- IA Practical Exercise for Performance Criterion (c).

The student will be set a practical exercise to test the knowledge and skills required to fit individual tree shelters.

The student will be expected to erect a tree shelter, meeting the standards specified in the Performance Criterion.

The assessment may be carried out with the aid of an observation checklist.

Satisfactory achievement of the Outcome will be based on the student meeting all the Performance Criteria.

**The following sections of the descriptor are offered as guidance.
They are not mandatory.**

The student should at all times observe the correct safety procedures as defined in HSE, FTC publications and FSC Leaflet 7.

Corresponding to the Outcomes 1-4:

1. Methods of packaging planting stock, tied in bare rooted bundles, polythene bags, extruded plastic bags.

Care of plants in transit. Effects of frost, drying out, overheating and rough handling. Optimum planting season for different species; bare root stock and role of coldstore in extending planting season. Correct planting location on various sites and conditions; restocking areas; quality of planting; stock density per unit area. Storage methods and procedures. Handling procedures whilst in transit and during planting.

Types of temporary storage - sheugh, stack, beehive.

2. Practical exercises in notch planting on prepared and unprepared sites.

Range of planting tools; selection of correct tool according to site conditions. Planting stock and planting method, maintenance of tools - shaft and cutting edge.

Culling of unsuitable plants; recognition of viability.

Selection of suitable planting location on ploughed and bare ground; factors to consider.

Range in a straight line.

Awareness of wet areas, soil drying and turf erosion.

Preparation of planting location according to conditions, scree, turf; step in ploughing.

Removal of not more than one plant, from planting bag at any one time.

Planting - correct depth, care of roots, vertical, from ground without damaging plant, correct spacing, correct use of a tool.

3. Practical exercise in beating up using the notch methods of planting. Assessment of previously planted stock:

- (i) is it dead?
- (ii) if not dead will it survive?
- (iii) is it group death?
- (iv) how many to be replaced?

4. Practical exercises in the erection of tree shelters.

SUGGESTED LEARNING AND TEACHING APPROACHES

As much of this module as possible should be undertaken in a practical situation.

The student should as far as possible have the opportunity to undertake storage, handling and planting operations under a range of conditions.

Slide/video programmes could be used to illustrate situations not covered in practical exercises.

1. The reasons for correct storage procedures are explained and the methods demonstrated prior to student participation in practical exercises. Visual aids may be used where practical resources are not readily available.
2. Supervised exercise in forest situation.
3. Supervised exercise in forest situation.
4. Demonstration of correct procedures followed by supervised practice.

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