Prepare seedbeds and sow crops on a field scale

Level 4
Credits 10

Purpose This unit standard is for people working in horticulture. People credited with this unit standard are able to: distinguish between various seedbed types; prepare a seedbed; sow seed using mechanical seed drills on a field scale; and maintain seedbed and seedlings to post emergence stage.

Subfield Horticulture
Domain Production Horticulture
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Accreditation Evaluation of documentation and visit by NZQA, industry and teaching professional in the same field from another provider.

Standard setting body (SSB) Primary Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0032
This AMAP can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Special notes
1 **Workplace procedures** refer to verbal or written instructions to staff on procedures for the worksite and equipment.


3 **Field scale** refers to operations requiring the use of tractor mounted equipment or implements.

4 A person must be 15 years or older and hold a full light motor vehicle (Class 1) licence to legally drive a tractor up to 4.5 tonne on a public road.
Elements and performance criteria

Element 1

Distinguish between various seedbed types.

Range select a minimum of two seedbeds – grass, cereals, peas, brassica, onions, nursery crops.

Performance criteria

1.1 Each seedbed is described in terms of the physical characteristics required for sowing or planting.

1.2 The merits of different methods of seedbed preparation are described in terms of crop establishment and output.

Range physical characteristics – the sequence and effects of preparation on soil properties and tilth, influences of terrain, soil type and location of the seedbed.

Element 2

Prepare a seedbed.

Performance criteria

2.1 Cultivation equipment selected is appropriate to the preparation of a specified seedbed.

Range preparation includes – maximum trash burial and weed control, optimum soil conditions for seed germination and establishment, minimised loss of soil moisture, damage to soil properties and sustainability of the soil.

2.2 Decisions on sequence for cultivation and fertiliser application rate are consistent with the intended crop and the physical characteristics of the field.

Range physical characteristics of the field include but not limited to – soil type, tilth, terrain, location.

2.3 Seedbed cultivation and fertiliser application is carried out according to the planned actions and in accordance with workplace procedures.
Element 3

Sow seed using mechanical seed drills on a field scale.

Performance criteria

3.1 The seed drill is calibrated for the seeds to be sown according to seed merchants and manufacturer’s guidelines and specifications.

3.2 Seeds are sown according to seed type, depth, and area to be sown.

3.3 Vehicle and implement use practices are demonstrated in accordance with workplace procedures.

Element 4

Maintain seedbed and seedlings to post emergence stage.

Performance criteria

4.1 Seedbed is maintained to ensure optimum plant growth.

4.2 Seeds are checked daily for germination emergence.

4.3 Records are kept of plant growth up to post emergence stage.

4.4 Seedlings are checked daily to ensure optimum plant growth.

Range pests and diseases, irrigation, drainage.

Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Primary Industry Training Organisation via their website www.primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.