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## TALL FESCUE

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Roa tall fescue was bred by Grasslands Division for high summer productivity and drought tolerance. By following the principles outlined, specialist growers are able to achieve machine dressed seed yields of over 600 kg ha<sup>-1</sup>; seed yields of over 1000 kg ha<sup>-1</sup> have been recorded.

### ESTABLISHMENT

**Site:** Moisture retentive soils of medium fertility are required for tall fescue seed production. Topsoil should be relatively deep because the tall fescue has a deep root system. Areas exposed to north-west winds should not be used because of risk of seed loss due to shattering.

**Paddock history:** As with other grass seed crops, tall fescue fits in well with a rotation such as cereal, green feed, legume, (legume), grass seed. This allows for weed control and fertility build up. Roa should not be sown into an area with known contaminants (e.g., yellow gromwell, prairie grass, ryegrass, hair grass, goosegrass or couch).

**Time of sowing:** Roa tall fescue is moderately slow in germinating and establishing. For best results soil temperatures should be warm before sowing, but moisture must be available. Sowing in early to mid-November is generally successful in the North Island. However, in Canterbury sowings at this time would require irrigation. If no irrigation is available, sowing in mid-Spring (September or early October) is advised. Sowing in Autumn (before mid-March) can be successful, but again, water is a necessity.

**Seed-bed preparation:** As Roa is slow in establishing early seedling growth can be aided by thorough preparation of a firm, weed-free, well compacted seedbed.

**Sowing rate:** Recommendations for sowing rate vary from 5-6 kg ha<sup>-1</sup> in 45 cm rows to 15 kg ha<sup>-1</sup> in 30 cm rows. Whether or not low seeding rates can be used depends on the availability of a precision drill.

**Fertiliser:** Fertiliser should be applied to prevent any nutrient deficiencies. Type and rate necessary will depend upon soil type and previous cropping history. Superphosphate (250 kg ha<sup>-1</sup>) plus 70 units of urea is used by some growers.

**Weed control:** Grass weeds and broad-leaved weeds must be controlled. Hormone sprays registered for use in cereals have been used successfully in tall fescue seed stands. In second year crops atrazine can be used in late autumn when soils are wet and/or rain is expected (which will wash the atrazine into the soil to prevent burning of leaves).

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## CROP MANAGEMENT

**Grazing:** Crops may be grazed lightly during the first year, once plants are established, to remove weeds and maintain plant length at 75100 mm. The crops should be closed in late July/early August.

**Fertiliser:** Seventy-100 units of nitrogen applied at closing or, in the case of the higher amount, half at closing and half in mid-September, generally improves seed yield.

**Fungicide:** Little work has been carried out on the use of fungicide in tall fescue crops however it is suspected that, as with other grasses, use of fungicides as a preventative would be beneficial.

## HARVEST

**Time of harvest:** Tall fescue crops should be harvested when approximately 60% of the seeds are brown to dark-brown, seed moisture is around 4.548% and weather conditions are good.

**Method of harvesting:** Direct heading is efficient if the crop is unlodged, but is slow and expensive as seed must be dried artificially. Rotary-disc or sickle-bar mowers can be used, but the latter are more gentle (less seed is lost) and the swath formed is more open (and so dries more rapidly). The crop should be picked up as soon as possible.

Once harvested the seed should be cooled, and dried to below 14% moisture.

**Post-harvest treatment:** Straw should be baled and removed, or the crop residue should be burnt; A 'clean-up' grazing can be followed by 150 kg ha<sup>-1</sup> superphosphate (depending upon soil type) in the early autumn, and further grazing until closing in late July/early August. If grazing does not eliminate seedlings between rows, a herbicide such as atrazine must be used.

## STAND LIFE

Tall fescue stands can be certified for up to 6 years.

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