Establishing pastures - Readers' Note

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Inoculation of legumes

Inoculation of legumes is essential. Inoculation of legume seed is the application of nitrogen-producing *Rhizobium* bacteria (rhizobia) to the seed to ensure the production of nitrogen in nodules on the plant roots. Seed can be bought already inoculated, or can be inoculated on-farm.

With normal inoculation, sow seed as soon as possible or within 5 days. See Agfact P2.2.7, *Inoculating and Pelleting Pasture Legume Seeds*, for details.

**Pre-sale inoculation**

Many produce merchants will inoculate seed before purchase. Two companies also offer pretreated seed with extended shelf-life:

**N•Dure** (Wrightson Seed Group of Companies): Rhizobium shelf-life is extended from 3–5 days to 12 weeks. Seed has a lime-based coating and molybdenum is included. Seed can be sown at the same rate as unimproved raw seed.

**N•Dure Plus** (Wrightson Seed Group of Companies): Rhizobium shelf-life is extended from 3–5 days to 12 weeks. This treatment protects seedlings against red-legged earth mite attack for 4–6 weeks after sowing. The seed must be covered by soil, and the pasture cannot be cut or grazed within 6 weeks of the sowing date.

**Agricote** is a patented process of pre-inoculating seed from the Heritage Seeds company. The rhizobia remain viable in the Agricote seed coating for at least 4 weeks after the seed has been coated. The Agricote seed has the correct rhizobial strain, major and minor plant nutrients and Apron® fungicide (where registered for use) to protect young seedlings from damping-off caused by *Pythium* and *Phytophthora*.

**Molybdenum trioxide**

Where necessary for acidic soils, molybdenum trioxide can be added when you are inoculating. Work out a rate that applies 100 g/ha. Adding molybdenum trioxide guarantees that the young seedlings have molybdenum, which is important for nodulation of legume roots and subsequent nitrogen production.

**Do not use sodium molybdate to coat seeds** as it kills rhizobia.

**Further information**

Agfact P2.2.7, *Inoculating and Pelleting Pasture Legume Seeds*