

Barenbrug endophytes

Ryegrass endophytes

Endophytes

Specify your endophyte when you order ryegrass seed for a pasture. Note: the ryegrass cultivar is also a key part of this decision, as it is the ryegrass x endophyte combination that determines pasture performance.

NEA

NEA endophyte gives excellent animal health and performance, and good black beetle control. NEA provides ryegrass staggers free pasture for dairy cows and beef cattle. While staggers is unlikely with sheep or deer, in dry summers if animals are forced to graze close to the ground a low level of staggers may be seen. As a precaution, we do not recommend NEA be sown for horses or deer.

- NEA is available in *Shogun* and *Forge* ryegrasses.

NEA2 & NEA4

NEA2 and NEA4 endophytes are ideally suited to all farm systems nation-wide, providing persistent pasture with excellent animal health.

Ryegrass with NEA2 or NEA4 has good control of black beetle, Argentine stem weevil (ASW) and pasture mealy bug (provisional rating).

NEA2 and NEA4 provide ryegrass staggers free pasture for dairy cows and cattle. While staggers is unlikely with sheep or deer, in dry summers if animals are forced to graze close to the ground a low level of staggers may occasionally be seen. They are both a designed mix of two endophyte strains.

- NEA2 is available in *Array*, *4front* and *Rohan*.
NEA4 in *Maxsyn* and *Tyson*.

NEA12 & AR37

NEA12 differs from other NEA endophytes in that it produces janthitrems, the same as AR37. Both provide good control of Argentine stem weevil and black beetle, very good control of root aphid, and a level of porina control.

Typically animal performance on these endophytes is very good. Ryegrass staggers has not been observed in dairy cows or cattle. NEA12 and AR37 can cause ryegrass staggers in sheep or lambs, which can be severe in dry summers if animals are forced to graze close to the ground. Do not sow for horses or deer.

- NEA12 is available in *Maxsyn* and *Shogun*. AR37 in *Governor*.

AR1

AR1 provides excellent animal performance and health in most situations. However, it gives limited insect control. It should not be sown in the northern North Island as it is susceptible to black beetle.

It is also susceptible to root aphid, but provides very good control of Argentine stem weevil and pasture mealy bug (see page Endophyte insect control rating). AR1 is largely ryegrass staggers free (see Endophyte animal safety ratings).

- AR1 is available in *Governor*.

Low (LE)

Ryegrass with Low endophyte is an option for areas of very limited insect damage. However, many farmers in these areas are achieving better results sowing ryegrasses containing the right endophyte. LE provides little insect resistance (see Endophyte insect control ratings).

- LE is available in most Barenbrug ryegrass cultivars.

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