Grasslands® Hummer Tall Fescue Agrinote

- Available with **MaxP®** novel endophyte
- Soft leaved early heading tall fescue
- Higher water-use efficiency than ryegrass under hot conditions
- Tolerant to insects, drought and saline conditions

Background

Hummer is a new generation of early heading tall fescue. Typically early heading in tall fescue have been associated with broad leaved coarse types that have been difficult to manager. This type has been associated with the most persistent and productive historic cultivars.

Hummer is a soft leaved and fine tillered early heading cultivar with seed head emergence starting in late September. **Hummer** has maintained the productivity and persistence of the early heading types while improving the palatability and grazing management. Not only is **Hummer** a fine tillered cultivar but it is a sod forming which create dense crowns over time: an important trait of a persistent tall fescue. The early heading time of **Hummer** leads to a very impressive late winter and early spring growth potential, while **Hummer** as a tall fescue is an ideal option for irrigated or summer rainfall pastures in regions where it is too hot for perennial ryegrass to perform at its most efficient.

Hummer is a deep rooted grass with a large corse fibrous root mass that can often be found well beyond the rooting depth of perennial ryegrass. This root structure and the strong crowning habit of **Hummer** helps it to be naturally tolerant of grass grub while the presence of **MaxP®** endophyte extends its insect tolerence markedly.

Tall fescue often is the ideal grass for providing high legume content pastures and is very complementary to both white and red clover. It also maintains high chicory content when sown together. Often **Ecotain environmental plantain** is sown with tall fescues, however sowing rates should be less than 1 kg/ha as the establishment vigour of **Ecotain** is so strong it can damage the tall fescue establishment density. Due to this legume and herb friendly establishment phase **Hummer** can be successfully used in lamb, beef, and deer fattening systems, as well as in many irrigated and un-irrigated summer-dry dairy operations.

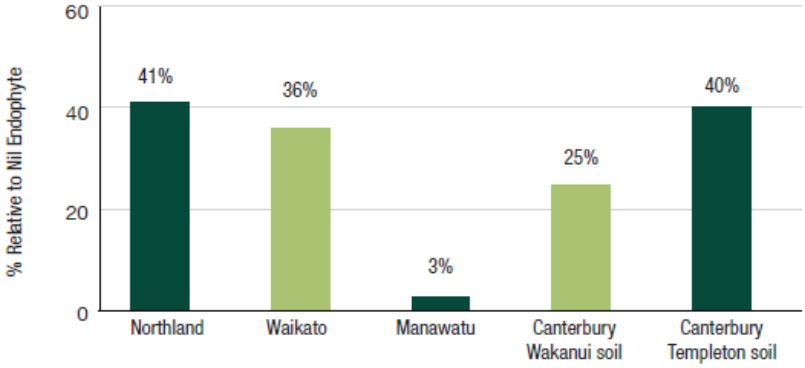
Characteristics

Perenniality	Leaf size	Flowering date	Suggested Sowing Rate (kg/ha)
100 % perennial	Medium to fine	Early	20-25
Rust tolerance	**1000 Seed Weight**	**Chromosome No.**	**Endophyte Status**
Good	2.6 grams	Hexaploid	MaxP

MaxP Tall Fescue Endophyte

MaxP® is a tall fescue novel endophyte that produces peramine and loline alkaloids which give an increased level of insect tolerance; increasing the production and persistence of tall fescue. **MaxP®** is available in **Hummer** tall fescue.

The **MaxP®** endophyte provides protection against Argentine stem weevil, black beetle adult, root aphid and pasture mealy bug. The **MaxP®** endophyte also gives tall fescue a greater ability to survive and recover quickly from droughts due to the reduction in plant stress caused by insect feeding.

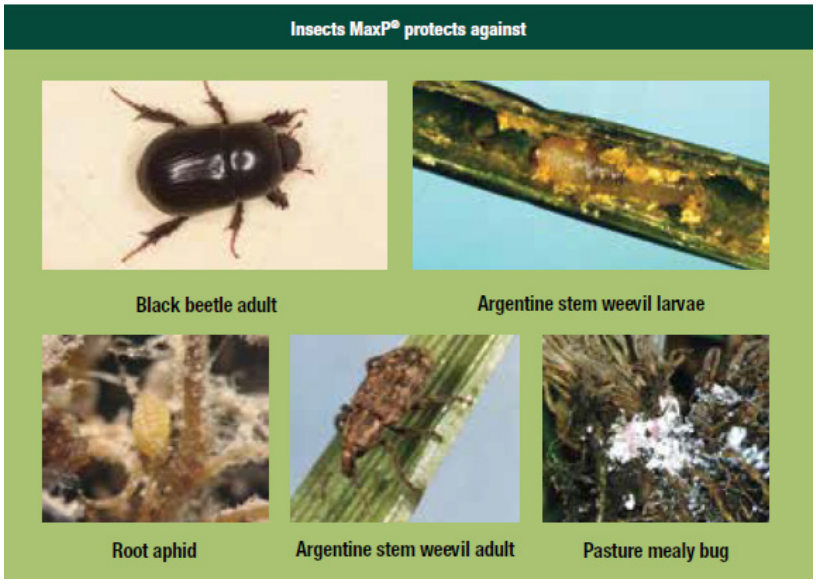


Tall fescue in general has increased persistence over ryegrass cultivars in many situations due to a larger root mass, but the increase in persistence due to the **MaxP®** endophyte is even more advantageous. Tall fescue is increasingly being used in areas where ryegrass cultivars aren't persisting against increasing insect populations and summer moisture stress is causing a reduction in persistence.

MaxP® will provide a lot more tolerance to high insect numbers than tall fescue without endophyte.

MaxP® in tall fescue has been trialled under sheep and cattle grazing with no adverse animal health effects.

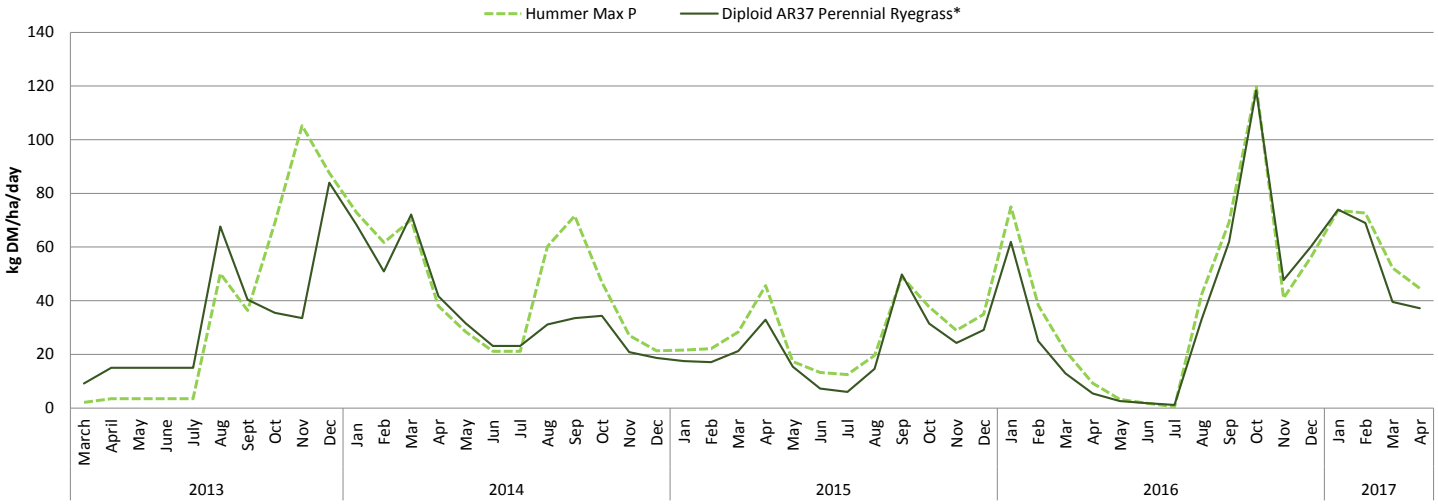
MaxP® provides effective protection against the pests pictured on the right.



Example Hummer Tall Fescue Mixes

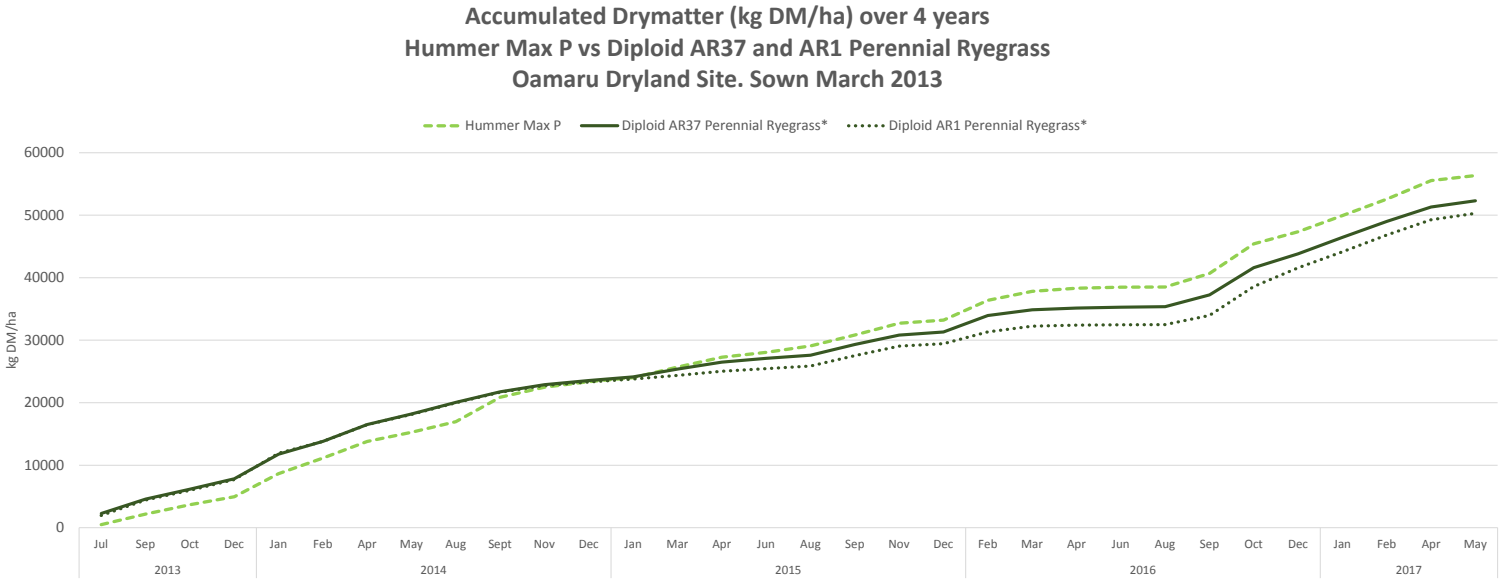
Hummer MaxP tall fescue	25 kg/ha
Tribute white clover	3 kg/ha
Relish red clover	4 kg/ha
TOTAL	32 kg/ha

Monthly Growth rate (kg DM/ha/day). Oamaru Dryland Site. Sown March 2013



* Mean of 2 late heading diploid perennial ryegrasses with AR37

Accumulated Drymatter (kg DM/ha) over 4 years. Hummer MaxP vs Diploid AR37 and AR1 Perennial Ryegrass Oamaru Dryland Site. Sown March 2013



* Mean of 2 late heading diploid perennial ryegrasses with AR37, and one cultivar with AR1