Jeta Hybrid Tetraploid Long Rotation Ryegrass

*Lolium x bouncheanum*

Jeta is the first of the endophyte ryegrasses to be released from DLF Seeds Breeding Program. Jeta is a long rotation ryegrass: a cross between perennial ryegrass (80%) to provide persistence, and Italian ryegrass (20%) for increased winter growth. Jeta is also a tetraploid – delivering outstanding feed quality, palatability and pasture growth. The variety is showing excellent performance, with quick establishment, good winter yield, excellent feed quality and the ability to keep performing well into the summer. Jeta has high tiller density, important for grazing and pugging tolerance and persistence.

- ARI endophyte package.
- Fast establishing.
- Very high yielding.
- Reliable early and late season growth.
- High disease resistance.
- Production of an Italian with the persistence of a perennial.
Seed agronomy table

<table>
<thead>
<tr>
<th>Heading date</th>
<th>+10 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td>Mid</td>
</tr>
<tr>
<td>Lifespan</td>
<td>5 years</td>
</tr>
<tr>
<td>Min Rainfall (mm)</td>
<td>700</td>
</tr>
<tr>
<td>Seeding Rate</td>
<td>Kg/Ha</td>
</tr>
<tr>
<td>Dryland</td>
<td>12-15</td>
</tr>
<tr>
<td>High Rainfall / Irrigation</td>
<td>25-30</td>
</tr>
</tbody>
</table>

Heading date: 0 days = Nui perennial ryegrass.

Enterprises this seed is being used for

Sheep
Beef Cattle
Horse
Hay & Silage

Strengths

- Developed to combine strengths of perennial & Italian ryegrasses, particularly increased cool season growth and increased nutritive value (eg water soluble carbohydrates).
- Note - Long lived hybrid ryegrass: classed technically as hybrid ryegrass (awned lemma) some cultivars of hybrid ryegrass are dominantly perennial ryegrass re parental origin and quite persistent in good environments where they may be considered as perennial ryegrass options (such as Jeta).

Limitations

- Requires moderate to high soil fertility. Does not withstand heavy grazing pressure through drought. Susceptible to cockchafer and cricket damage.

Plant Description

**Hybrid Plant:** Intermediate between perennial and Italian ryegrass species. Characteristics between cultivars depend on perennial : Italian parentage percentage.

**Stems:** 30-90 cm.

**Leaves:** fine (~7 mm), dark green, hairless, under surface shiny, blade folded about mid-rib in young shoot, leaf-base usually dark red.
**Seedhead:** spike ~20 cm, spikelet usually <10 florets/spikelet; awnless lemma.
**Seeds:** fawn, flat, awnless, ~6mm long. Approx 300,000/kg (tetraploid cvv) Tetraploid cvv: these have double the number of chromosomes, larger cells, leaves and seed.

**Pasture type and use**

Grazing and fodder conservation. Most widely sown pasture grass in temperate regions.

**Where it grows**

**Rainfall:** > 700mm+.
**Soils:** Medium-heavy, moderate-high fertility (eg Olsen P >12, 0-10 cm). Tolerates slight salinity.
**Temperature:** Cold and frost tolerant, growth constrained by high temperature.

**Establishment**

**Companion species:**
**Grasses:** Perennial ryegrass.
**Legumes:** white clover, medics and sub clover.
**Sowing/planting rates as single species:** 10-25 kg/ha.
**Sowing/planting rates in mixtures:** 5-10 kg/ha.
**Sowing time:** Autumn and spring.
**Fertiliser:** P & possibly N at sowing.

**Management**

**Maintenance fertiliser:** requires fertile soil to persist. ~10 kg P/ha. Monitor S, K, Cu especially. Supply N by clover/fertiliser.
**Grazing/cutting:** Tolerates close, continuous grazing except if drought-stressed. Graze at 2.5-3 leaf stage to optimise yield under rotational grazing.
**Ability to spread:** Will spread if allowed to seed.
**Weed potential:** Low unless allowed to set seed.
**Major pests:** Red and black-headed cockchafer, black field cricket, white-fringed weevil, African black beetle, corbies, underground grass caterpillar.
**Major diseases:** Crown rust, stem rust, barley yellow dwarf virus, ryegrass mosaic virus.
**Herbicide susceptibility:** In choosing selective herbicides consider the stage of growth of the ryegrass and what non-target companion species are present.

**Animal production**

**Feeding value:** High nutritive value.
**Palatability:** Palatable.
**Production potential:** High yields; highly responsive to fertiliser and irrigation.
Livestock disorders/toxicity: Cultivars with wild endophyte can cause perennial ryegrass toxicosis and ill-thrift. Bacterial infection of seedhead can occasionally occur and result in ergot poisoning.