Ryegrass, the Rolls Royce of temperate grasses

Ryegrass has the highest nutritive value of the temperate grasses, and is also the most palatable. Ryegrass is highly productive, (18 tons DM/ha/year), and pound for pound, it delivers the highest animal production of all! This rocket-fuel-in-grass-form comes at a cost however, especially under our South African conditions. Due to its high water requirements all ryegrass in South Africa has to be grown under irrigation. Ryegrass also needs a fair amount of Nitrogen, and will only really flourish in well-drained, neutral soils with acid saturation below 5%.

In recent years, especially in the dairy areas of the Eastern Cape, and Kwa-Zulu Natal producers have started to blend several other species with ryegrass to address the grass’s shortcomings: Perennial ryegrass isn’t really perennial in the true sense of the word under South African conditions. Survival rates of perennial ryegrass varies for different climatic conditions. For perennial ryegrass to survive and remain productive for three years under South African conditions, is exceptional. To counter this farmers have had to ‘renovate’ pastures, where fresh seed is over-sown or drilled into existing pastures, in order to always have a proportion of the plants in their first year of production.

There are two general schools on pasture blending:

1st is that one can have the benefits of two species in one stand. For example, one can have higher summer production in a stand where kikuyu is blended with perennial ryegrass, because of the kikuyu producing in summer when the ryegrass doesn’t.

The 2nd states that if one were to plant perennial ryegrass and kikuyu on separate lands, and manage them each properly for what they are, that one would attain an overall higher yield from their combined production.
None of the above two schools, however, address animal production – both focus on dry matter yield only. In nature one would hardly ever find a mono crop (one species growing on its own in isolation from other species) situation. There are very clearly researched- and documented benefits, both for plants and livestock, to have grasses blended with legumes in a pasture sward.

A few things need to be taken into account before mixing it up:

Some species are tall and upright growers, while others are prostrate, flat creepers. When one partners such species together you might find that the partnership is stormy and eventually one species will outcompete the other. It does, however, not mean that different growth habits will always be in competition to each other; we have found that there are species with very different growth habits, which happily cohabit the same sward.

A phenomenon where one species (or even cultivar) may chemically inhibit other species (or cultivars) from growing.

Allelopathy is not widely understood, and it is often difficult to distinguish between allelopathy and straight-up competition. In ryegrass blends we have found oats, and especially certain oat cultivars to be allelopathic to the ryegrass.

Refers to how the blend composition will change over time, under various environmental conditions.

For example, in sheep farming we have found that perennial ryegrass blends well with Tall Fescue (*Festuca arundinacea*) and Cocksfoot (*Dactylis glomerata*). However, through the browsing nature of sheep feeding, if the pasture is not grazed under pressure the sheep will selectively eat out the ryegrass and cocksfoot before grazing the tall fescue. Thus, if proper grazing management is not kept up the ryegrass and cocksfoot disappears from the sward fairly quickly.
At Advance Seed we are constantly questioning, revising and testing our current pasture blends, and we are constantly exploring new blends in order to meet the challenges facing our farmers today. A large driver in our thinking going forward with blends is water use efficiency. Because our temperate grasses are so thirsty we are looking at blending different species to still provide high yields of superb quality feed, but which uses less water per unit of dry matter grown. We are also exploring new pastoral systems for the future, in order to have the right species and blends when the market needs them.

**In 2016 Advance Seed kicks off our new temperate pasture range with two new perennial ryegrasses added to our product line-up:**

**ALTO** is a diploid perennial ryegrass with a late heading date, superb yield and a robust growth habit. Alto will be exclusively available from Advance Seed.

**BEALEY** perennial ryegrass is a tetraploid variety with an ultra-late heading date, supreme palatability and also clover-friendliness in terms of growth habit.

In the pipeline Advance Seed is looking forward to releasing new annual ryegrass cultivars, tall fescues as well as some exciting Mediterranean type tall fescues. Watch this space!

**Feel free to contact me for more information**

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