

# FORAGE FOCUS

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Wrightson Seeds

## A breakthrough in winter pasture production

Ask most farmers 10 to 15 years ago when they most needed feed and they would answer mid-to-late winter, when the paddocks were wet and boggy, ryegrass stopped growing and trails of grain were trampled into the mud.

The situation has changed over the past decade and the autumn break over much of southern Australia now seems to occur in the last week of May to early June. This creates a critical shortage in late autumn to early winter and farmers now tell me that they want a pasture variety that will respond immediately to late autumn rain.

Wrightson's research team has looked closely at this issue over the past few years. Our hopes of finding a ryegrass that addressed this winter deficiency initially rested in the Kangaroo Valley types that matured early and therefore gave useful feed in July and August. These varieties still have a role in more marginal ryegrass areas but they are slow to get started, like all Australian varieties, and total dry matter (DM) production is low. Australian types survive long hot summer conditions by going very dormant and they take a while to start growing again.

The breakthrough came with our discovery that some Spanish types have a different summer survival mechanism, they have far less dormancy and seem to rely more on having a vigorous root system. They start growing as soon as it rains, whether in summer or winter. We had noticed in our drought tolerance sites that Wrightson's Banquet<sup>®</sup> tetraploid ryegrass was extremely drought tolerant and it was a surprise that it could respond so quickly to the opening rains. However, over three years of trials we have found that Banquet<sup>®</sup>'s winter production is significantly better than other varieties in our trials. Because peak spring production can be lower than New Zealand types, total annual dry matter charts over-looked this critical benefit.

In an experiment sown in Autumn 2004, Banquet<sup>®</sup> was compared with a large range of other ryegrasses.

In 2005 it was very dry in autumn and the site was continually stocked until 1<sup>st</sup> June when we had less than 500kg dry matter per hectare. We had good rain on the 6<sup>th</sup> June and the plots were cut on the 10<sup>th</sup> August. Many varieties produced under 1500kg DM/ha, but

Banquet<sup>®</sup> produced 4,500kg DM/ha. This is a growth rate of 60kg DM/ha/day over the peak winter period in what was a very late break and very cold and cloudy winter – a growth rate that I would have been considered by some as impossible 3 years ago.

## Yield Results

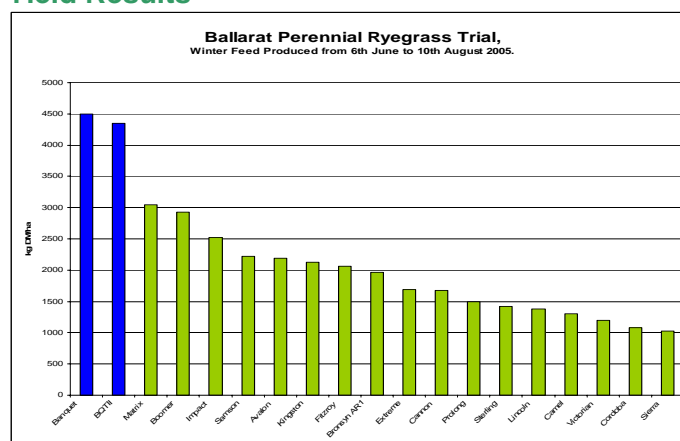
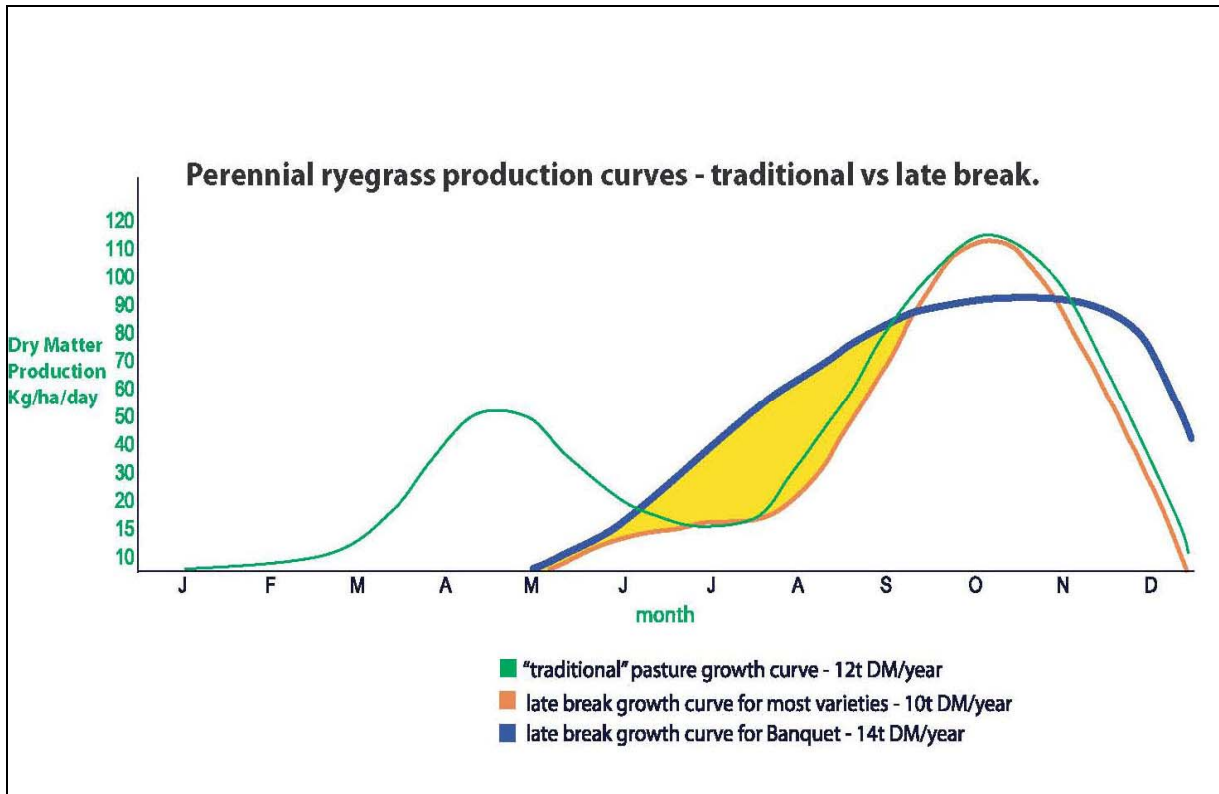


Figure 1. Banquet<sup>®</sup> and Banquet<sup>®</sup> II demonstrating superior winter production compared to most available commercial varieties.



Figure 2. Ballarat Experiment sown 2004 – Banquet<sup>®</sup> produced 4500 kg DM in the period 1 June to 10 August 2005, three times more than the standard varieties on either side. The photo was taken on the 10<sup>th</sup> August 2005.



**Figure 3:** Standard pasture growth curves for perennial ryegrass (Green line) were based on Australian type ryegrasses and years with a 'normal' autumn break. Most New Zealand and Australian types follow this pattern with some varieties being above the line and some below. In years with late breaks (Orange line) growth starts much later. Banquet<sup>®</sup> starts growing with almost spring growth rates as soon as the rain starts in June (Blue line).

For more information on Banquet<sup>®</sup> or Banquet<sup>®</sup>II please call Wrightson Seeds on FREECALL 1800 619 910.