
EXPERIENCE WITH S170 TALL FESCUE ON THE RANGITAIKI PLAINS

J. D. REEVES

Edgecumbe

MY PRESENT concept of an ideal pasture is an old pasture with a wide-ranging composition. I feel that S 170 tall fescue has a place in a pasture of this nature, if present problems of supply and price of seed are overcome.

The object of having a wide-ranging composition is to have some species growing well whatever nature's inconsistencies of weather and insect pests. If the need arises, there should be a good base to add to by undersowing, a common practice in this district, while maintaining production from existing species. One quality of S170 tall fescue in maintaining pasture production is that it is generally considered to be far more tolerant of soldier fly than is ryegrass, although no experimental information on this appears to be available at present. It is known to be more tolerant of grass grub than is ryegrass.

The price of S170 tall fescue seed has risen to \$3/kg (imported from Wales) making it a rather prohibitive proposition. However, I have high hopes that work being done at Grasslands Division of DSIR at Palmerston North, crossing our own vigorous tall fescue with the nutritious Italian ryegrass, will bear fruit. The soils and climate of this district are not ideal for ryegrasses and so all possible alternatives must be explored to get closer to the potential production of our farms.

PRESENT SITUATION

I have a dairy farm just south of Edgecumbe on alluvial, sandy, gravelly loam derived from volcanic ash. It is very free draining and prone to drought. The farm is 85 ha carrying 2.5 Jersey cows plus replacements per hectare. Stocking rate is above average for the soil type and production per cow (165 kg milkfat) and per hectare (412 kg milkfat) are above average. Grazing pressure is aimed at favouring the cow, and tends to be on the lax side.

Since 1962, soldier fly invasion has caused a change in management. Up until then we had old pastures that were improving with time and management but soldier fly caused serious rye-

grass "pulling" and pasture deteriorated in composition and yield until we had paspalum- and poa-dominant swards.

USE OF S170 TALL FESCUE

Autumn cultivation became necessary to reduce the level of soldier fly larvae and re-establish ryegrass-based pastures. However, we were dissatisfied with the lack of persistence of 'Grasslands Ariki' ryegrass and, therefore, tried S170 tall fescue in the following seed mixture: Ariki ryegrass 11 to 13, S170 tall fescue 20, and white clover 2.2 kg/ha.

Germination and growth of S170 was good but Ariki overpowered it in spring and final S170 establishment was poor despite hard grazing to control Ariki. However, when Ariki began to pull and thin out, as soldier fly larvae increased, the small number of surviving S 170 plants grew much more vigorously than the ryegrass.

The next logical step was to leave out ryegrass entirely and so establish a sward of the initially less competitive species and undersow ryegrass later. The seed mixture settled on after trying several variations was: S170 20, cocksfoot 5.5, timothy 2 and white clover 3.3 kg/ha. Prairie grass at 11 kg/ha could substitute for some of the other grass content.

A post-emergence spraying with 2,4-DB to kill weed seedlings is essential, as the slower establishing grass species do not give much competition to weed seedlings and the result can be a severe weed problem and a thin sward.

Ryegrass is undersown into this established sward when necessary, usually after three or four years when there is some mortality and thinning of the original sward.

GRAZING MANAGEMENT

At present there are five paddocks (10% of the farm) with significant amounts of S 170, cocksfoot, prairie grass and timothy in the swards. During the milking season, the milking herd are on a 14- to 21-day rotation but the S 170 paddocks are grazed more frequently than average, at about 14-day intervals. The more frequent grazing is a result of the more vigorous growth of S170-based pastures. However, greater dry matter production could also be partly because of extra vigour associated with new pastures after the establishment phase.

The quality of S170 swards is improved by at least one pre-grazing mowing during the summer, which results in the cows

eating the poorer quality stalks. Also, a cut of hay is often taken as well. This system of management maintains a leady, good quality sward. Seed-heads are no problem as a result.

PASTURE PRODUCTION

Hay yields have been quite consistent at about 140 bales/ha, when cut at a similar stage of growth (good quality material) over several variable seasons. This yield is better on average than the more variable yields of ryegrass/clover/paspalum swards. It is only during the first winter and spring that the ryegrass-based pastures produce more than the S170-based swards. From the first summer on, the yield of S170 swards has been as good as, or better than, the standard mixture, especially in the hot, dry months.

WEEDS

The major weed problem on the farm as a whole has been docks, which have increased recently because of droughts and insect pests. However, I have not noticed any difference in degree of weed infestation between S170- and ryegrass-based swards.

FUTURE POLICY

At present there is a "lull" in insect pest problems and, as many paddocks have been cultivated, levelled, cropped (usually rape for summer fodder) and regrassed, there are not many rough paddocks left. However, another soldier fly build-up and black beetle are expected to become bad problems in the future. I feel, therefore, that the cropping and regrassing policy will probably have to be continued to some degree, as will the policy of regrassing with cocksfoot, prairie grass, timothy and tall fescue (if the seed price is reasonable), followed later by undersowing ryegrass. Mangere and 'Grasslands Nui' ryegrasses seem very promising in this area, judging from early results, so these will be tried. Lucerne is also being considered as a pest-resistant, semi-permanent pasture and summer crop, if disease problems can be satisfactorily overcome.