

SERRATED TUSSOCK CONTROL ON 'BOHARA'

"Bohara" lies in the sandy loam soils of the Breadalbane floodplains where Rod Edwards and Jenny Bell run a self-replacing flock of about 6000 Merino sheep – 3000 dry sheep, 1500 ewes, 1500 lambs, a handful (about 300) of first cross sheep, and 10 horses.

When they took over the farm more than 30 years ago, it had been running fat lambs with accompanying fodder crops. The sheep were essentially set-stocked and this continued until very recently. With the change-over to wool production, the areas used for fodder crops were sown down to exotic perennial pastures – Phalaris, Cocksfoot, Ryegrass, Fescues, and clovers, with native perennial grasses also encouraged to grow.

Lime was spread in the past, but is no longer used. Nor is superphosphate – the last time super was spread was 15 years ago.

Serrated Tussock has been their most serious and persistent weed problem, although of a scattered nature rather than growing in large, mono-cultural stands. The seed continues to blow-in every year on the W/NW summer winds, from nearby properties with large areas of Serrated Tussock.

Until recently, despite Rod and Jenny's annual spot-spraying and hand-chipping of the Serrated Tussock, the numbers of plants didn't appear to be reducing significantly.

However, after undertaking a Holistic Planning approach to their grazing strategies about 3 years ago, they have seen a marked decrease in the number of Serrated Tussock plants appearing annually.

During 2007, with SE Australia in the grip of the deepest drought since Federation, Rod and Jenny decided to implement the grazing strategies advocated in the Holistic Grazing system. This requires a detailed, careful and dynamic planning approach that regularly monitors desired and actual outcomes in both the pasture and the stock. Undertaking this approach saw them increase the number of paddocks to 50 and to match the stock numbers per paddock to its' feed value whilst maximizing year-round pasture growth. The aim is to keep 100% ground cover, and continually build-up a mulch layer over the soil, always keeping the feed in front of the stock regardless of the seasons.

The numbers of stock run as a mob can vary according to the breeding cycle of the females, the season itself, and the dynamic nature of the pastures and their soils. Paramount to the success of the system must be the excellent health of the stock, a robust and resilient landscape with maximum groundcover and minimal weeds, and a viable bottom line. Increasing production whilst continuing to reduce input costs and improve the sustainability of the natural resources is the desired outcome of this method of grazing management.



The dense perennial native pastures in the ram paddock – note the deep mulch layer in the center of the photo

Another troublesome weed, Patterson's Curse, was inadvertently sown with oats in 2007, producing a dense crop of both species! In the sown paddock.

After an initial herbicide application on the Patterson's Curse, the following year Rod and Jenny decided to subdivide this paddock into 5 paddocks, and place appropriate grazing pressure on each paddock through their rotational system. Today, the Patterson's Curse is just a bad dream, out-competed by dense perennial pasture.

Within the few short years that Rod and Jenny have been practicing this system of planned, adaptive rotational grazing, which they constantly modify according to the ever-changing variables, they now have dense perennial and diverse pastures providing year-round feed, and a rapidly accumulating mulch layer over the soil, with a corresponding build-up in topsoil. This change, effected over three and a half short years, has also substantially reduced the numbers of Serrated Tussock plants and other weed infestations such as thistles.

Serrated Tussock control is now simply a matter of vigilance throughout the year, chipping them out and spot spraying if the numbers are too many to chip.

Rod and Jenny have trialed a variety of different soil improvement techniques, with varying degrees of success, but the change-over to the cost-effective Holistic Planned grazing, with the subsequent build-up in organic mulch and thus soil carbon, has had the biggest single positive effect on their weed management, pasture health and livestock nutrition.



A broad view of the current native perennial pastures after a rest period. This paddock is virtually weed – free.



Where the old sheep camps on the hilltops were once a mass of colonizing weed species thriving on bared-out and nitrogen-rich ground, today these old sheep camps are covered with a range of exotic and native perennial pasture species.



Jenny inspects an old sheep camp. This was compacted, bared-out ground growing only weeds three years ago. Since the instigation of holistic grazing methods, coupled with two good rainfall years, it has now become a dense, bio-diverse pasture. The weeds are scattered and in retreat, and perennial pasture species dominate. The dense NW tree-line they planted around the paddock offers stock shelter, pasture shelter, and captures some of the wind-borne Serrated Tussock seed blowing in from the north-west.