

Shifting from sheep to cattle and its effect on pasture weeds.

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Introduction

I have been in the grazing business all my life - for the first 30 years with merino sheep and cattle and now all Angus cattle. Since 2002 I have been focussed on our cattle seedstock business. The sheep were sold in late autumn 2002, so our pastures have been totally grazed by cattle for 4 years. Prior to 2002, our winter stocking rate was 12.5-13 dry sheep equivalents (DSE)/ha. Due to drought and with the leasing and purchase of more land, the winter stocking rate is now about 10 DSE/ha.

Our operation

Our seedstock business will calve about 850 recorded cows this year, including about 320 recipients. Our principal source of income is from marketing about 230 bulls a year through auctions, private treaty, contracts and leasing. At present we have about 2000 cattle which will build up to approximately 2600 by the end of spring.

Soils and pasture

Our business is run on five blocks of country totalling about 1880 ha of which about 420 ha is leased. Our original farm was 480 ha in the Murray Valley, 15 km east of the Hume Highway between Albury and Holbrook. It now totals 1200 ha including some lease country. Within the 1200 ha there is about 600 ha pasture improved with phalaris and about 250 ha of very rough hill country. Rainfall averages 700 mm normally with a winter-spring dominance.

The 600 ha improved pasture block is made up of very light granite ridges with gullies and flats ranging from white clay to alluvial soil. The country is very acidic ranging in pH from 3.9 to 4.6. Acidic subsoils are also a problem varying from paddock to paddock depending on past usage or 'abusage'. All 600 ha has been limed at 2.5 t/ha at least once and receives fertiliser at 150-250 kg/ha annually. Olsen P levels range from 20-35 mg/kg.

The rough 250 ha hill country area has not received any fertiliser in recent years and is grazed at various times through the year at 6-7 DSE/ha. This area has not received any lime. Grazing pressure needs to be strategic so that there is little stock pressure in the autumn especially, on the western facing slopes.

At Culcairn, we have a property of 560 ha, which is 50 km from our main operation. It is all pasture improved and has acid soils ranging from pH 3.9 to 4.7. Problems in the subsoil once again vary from

paddock to paddock. We purchased this property in 1994 and have pasture improved it with 25% pure lucerne and 75% phalaris and clover mix. This is in a 600 mm rainfall area of similar pattern. Soils vary from red loams (lucerne country) to heavy white clays. The country is very flat and soils are poorly drained.

In this paper I will be focussing on how weeds affect different classes of country in different localities and at different levels of pasture improvement. I will now discuss each of these different types of country in relation to weeds post sheep.

Weed issues and the change from sheep to cattle

Holbrook property

The main weeds in the 600 ha improved pasture block are erodium (*Erodium* spp.), silver grass (*Vulpia* spp.), barley grass (*Hordeum* spp.) and to a lesser extent Paterson's curse (*Echium plantagineum*). We virtually have no thistles or St John's wort (*Hypericum perforatum*). Grazing pressure controls these so they are not an issue. Winter cleaning is the main control measure for the erodium, silver grass, barley grass and Paterson's curse. I don't really think at 18 to 20 DSE/ha on this country there is any greater problem with cattle than sheep.

In the 250 ha of rough hill country, we have a vastly different story since the sheep were moved out. I am still on a steep learning curve on how to best tackle the weed problems. St. John's wort, briars (*Rosa rubiginosa*) and blackberries (*Rubus* spp.) are a major problem. In these areas we need to look at building up soil fertility, increasing grazing pressure strategically and doing some spraying where woody weeds are a problem.

Culcairn property

At Culcairn, since removing the sheep we probably have slightly more weed problems. Once again it is high input with a stocking rate of about 16 DSE/ha. We have no major problems with weeds in the red loam soils and the lucerne is winter cleaned each year. One problem, post-drought has been barley grass, which we are getting on top of – a post drought problem, rather than a livestock species problem.

The phalaris country is more difficult – problems with barley grass and silver grass, very little problem with broadleaf like Paterson's curse, cape weed (*Arctotheca calendula*) and thistles. The major strategy has been winter cleaning or spring topping. Generally grazing pressure is the key.

However our major problem in this country is pasture competition, certainly a legacy of removing the sheep and also the class of cattle we are running on this

property, principally bulls, weaner bulls and heifers. It has been difficult to graze pastures down even after a modest spring as the dead phalaris is a problem for young growing stock with very poor digestibility in the autumn. At present we are looking at putting more cows on this property. If we can't get a reasonable amount of dead material grazed off the paddocks before the winter, pasture composition becomes unfavourable. This is principally due to a lack of clover which affects animal productivity, mainly in terms of weight gain in young stock.

Final word

In summary, there are some issues post sheep, however, most will be sorted out over time with grazing management. However, I do feel the St John's wort in the rough hill country is a major concern and one that needs more attention. ♡