



Crops on Crops Make Great Pasture

Name:
North Stirlings Group

Producer:
North Stirlings, WA (various trial sites)

Tight crop pasture rotations make it very difficult to establish high density feed at the break of the season and in early winter and in early winter before clover can get established enough to maintain stock. To overcome this farmers are increasingly sowing cereals and canola with clover or into established clover pastures to fill this gap.

In the wheat belt, mixed farming enterprises are generally 60% to 80% : Crop – Stock ratio. This means that pasture fazes are very short, generally 1-2 years with 3-4 years of crop in between. Current day cropping leaves no room for error and weed management and crop hygiene is an integral part of getting the best return on crop investment.

The unfortunate result of this for the sheep is that all grasses are enemy number 1! Why is this an issue when there are other plants such as clover for sheep to eat? Unfortunately these really don't get going until August or later in a bad season, whereas members of the grass (including cereals) family are much quicker to establish. To fill this feed gap farmers are increasingly looking towards sowing cereals & canola with clover or into clover pastures.

This raises issues of variety, sowing rate, time of sowing, manipulation, impact on stock and crop in following year and risk management. These issues were on the minds of a group of North Stirling farmers when they decided to look closer at the subject.

The North Stirling's group observed several options on different farms. Wheat, barley and oats were sown, while canola was spread onto a pasture.

Early observations in June were that the canola had not germinated, the barley at cereal at 20kgs lacked density and that 40kgs was in the lower end of what needed to be sown.

Sowing decisions had been driven by different reasons - oats had been selected over barley on farm due to concerns over disease affecting performance of the barley. Others selected what they had in the silo or what tended to yield the best on their farm. In the case of the canola it was opportunistic. Seeding Fertiliser was applied at a minimum rates, enough to get it out of the ground.

The main observation from the various sites was similar, as one of the members stated "with modern cropping systems unless you sow something into pastures nothing is going to grow. The farming system has changed yet some are expecting sheep to perform the way they did without any inputs."

The results are that pastures that might otherwise run 3 DSE are running 6 DSE easily. The impact this has on sheep systems is significant on several levels:

1. Stocking rate;
2. Ewe and lamb survival- applying Life Time Ewe Management Principles - ewes in better condition have heavier lambs and lower mortality. Lambs with mothers on better pastures have higher survival rates and better growth rates.
- 3 Risk management in poor seasons - Pastures in the wheat belt that aren't bulked up with cereals struggle enough in average seasons , however in poor seasons they are shocking and any sheep are too many. Generally with a poor season (late break) on an average pasture we see a steady decline in the pastures potential. For example, as the date

Pastures in Rotation case study



of break gets pushed back we see a steady decline in stocking rate potential- i.e. from 6-5-4 . However with poor pastures the potential drops far more quickly 6-5 -1! This obviously has implications on the year in year out stocking rate that can be run with any sort of confidence.

The increased carrying capacity of the pastures had other impacts on the system. The major one being that pastures could be manipulated with confidence during winter/spring due to the knowledge that there was enough pasture density to run stock on once undesirables, such as barley grass, had been removed. This has benefits to the crop and pasture as the clover then thrives, lays down more nitrogen and seed and the following years crops has less weed competition.

Other key observations were:

- **Barley did have some disease issues that limited its production at one site but not at another, however this was mainly later in the season;**
- **A minimum of 40 kg's of seed should be sown to get enough early density;**
- **Clover seed set won't be compromised at higher rates 40-50 kg's if grazed or manipulated appropriately;**

All who participated or observed the sites agreed that bulking up pastures with cereals is the key to running reasonable stocking rates with their current crop/ stock rotations. The next challenge going forward is to refine pasture manipulation for the benefit of stock in the current year and crop in coming year.

More information

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