MLA PDS: Alternate forage crops for Southern WA

Background:

Over the Summer-Autumn period feed availability often becomes a critical factor influencing carrying capacity. SCF has received funding from MLA to investigate alternative livestock feed sources for this period. There is an enormous potential for new crops to be planted in the spring and survive over summer to provide valuable early-season feed. Especially when our climate is becoming increasingly variable with more rainfall events occurring typically outside of the (May-October) growing season. SCF will measure biomass production and livestock weight gain as part of the project.

Field Walk:

A great field walk was held on Friday, July 31. Over 50 people attended the afternoon at Brad and Tracy Wooldridge's Kalgan River property. Brad has planted a canola-970 and oat forage blend that averaged 3.5t/ha of biomass over the 8ha paddock. Since the field walk, Brad has grazed the crop for ~14days with 380 ewes and 550 XB lambs at foot. Not long after the sheep entered the paddock, southern WA experienced wide-spread storms and the Kalgan property received over 145mm of rain in seven days. Brad reported zero lamb or ewe losses during this time. The crop will now be fertilised to address the macro-nutrient (N, P and K) and micro-nutrient (Mn) deficiencies which were determined from CSBP plant tissue tests. The paddock will also be sprayed for Red-Legged earth mites which were in great abundance. Brad and Tracy hope to get more than one future grazing event off this paddock.

Pasture FOO estimate auction:

Field day participants had a go at estimating FOO by eye. Earlier in the week, Brad had completed quadrat biomass cuts which were dried in the DPIRD ovens. The samples were weighed, and biomass in tonnes/ha were calculated. The purpose of the exercise was to show growers how difficult FOO estimates can be, which has critical ramifications for feed budgeting.

Table 1: Summary of the pasture Food-on-offer (FOO) estimations (t/ha) from 34 producers at the recent field day hosted by Brad & Tracey Wooldridge.

Biomass (t/ha)	**Ave. Group Estimate**	**Actual Biomass**	**% accuracy**
Clover Site 1- higher	1.2 t/ha	2.7t/ha	44.4
Clover Site 2- lower	1.4 t/ha	1.8t/ha	77.8
Biomass (t/ha)	**Ave. Group Estimate**	**Actual Biomass**	**% accuracy**
Oats & Canola paddock	3.9 t/ha	5.1t/ha	76.5

How did the growers fare?

Clover site one was the first auction of the day and producers under-estimated the FOO by a whopping 1.5t/ha or 44.4% of the actual measured biomass. Producers were told the total biomass after the first auction to help calibrate them for the next estimation. The second clover pasture site looked to have less biomass than the first site, so producers were able to improve there accuracy to 77.8% of measured biomass. The final auction of the day was the canola & oats crop which was about to be grazed by Brad and Tracey's ewes & lambs. Producers were asked to estimate the highest biomass area of the paddock, which was clearly higher than either of the clover pastures. The producers accuracy was similar at 76.5% of the measured biomass.
It was interesting to note that the average producer estimations were lower than actual biomass for all three auctions. In fact, out of the 102 individual producer estimates, only four were equal or above the measured biomass for the three auctions in total.

Figure 1: The 8ha canola and oat forage crop 14 days (August 15, 2020) after 380 ewes and 550 XB lambs had finished grazing the paddock. See picture on page 16 for ungrazed comparison.

There was also a machinery display from Direct Seeding & Harvest Equipment showing their box drill. Attendees were able to witness how well the box drill could seed oats and ALOSCA granules directly into the clover-based pasture. Matt Skeet from Castle Drilling also showed his water drilling rig, which he is going to use to contract dig water bores. If anyone is interested in knowing more about either of the machines and buying, hiring or contract options, feel free to contact Stewart MacTaggart (Direct Seeding) or Matt Skeet (Castle Drilling).

The afternoon finished with SCF member Kent Rochester doing a live display of the RocksGone Reefinator. Kent has previously completed some contract work for Brad & Tracey in the summer to renovate the rough and rocky paddocks. The Reefinator crushes and breaks up rock to improve trafficability and also create a greater seedbed for pasture growth. Many members were seeing the machine for the first time. If you would like to contact Kent about Reefinator contract rates and availability, please contact SCF, and we will pass his number on.

The day was completed with a sundowner drink and BBQ for all to enjoy. Many thanks to Elders for the loan of their BBQ trailer and CSBP Fertilisers Albany for supplying refreshments. Huge thanks to Brad & Tracy Wooldridge, plus Matt Skeet for hosting the event.