Petersville, just north of Ardrossan on Yorke Peninsula is good country for growing wheat but that became a difficult thing to do when resistant ryegrass defeated most of Doug Smith’s practical attempts to control it in his wheat, lentil and canola rotation. When his agronomist Bill Long of Ag Consulting Co and neighbor and Sulla seed grower Trevor Polkinghorne suggested he try Sulla six years ago, Doug thought it could be a good way to attack the ryegrass problem and have a cash crop at the same time.

The Plant

According to seed producer Wrightsons, Sulla is a legume that grows for two years from seeding and is described as biennial. Best suited to neutral through alkaline soils, it is ideal for short pasture rotations in both mixed farming and livestock production systems. Sulla has a high yield potential and is highly palatable with excellent forage and fodder quality plus outstanding animal performance. It also has the added advantage of potentially fixing high levels of nitrogen. Unlike lucerne, Sulla is non-bloating and has reputed anthelmintic qualities, which may reduce worm burdens.

Doug doesn’t have any livestock to utilise the Sulla so in the first instance the plan was to grow the Sulla for seed and he secured a contract for the first year when he grew 4ha of the crop. Subsequently, the seed contract was not available and he turned to hay production, intending to supply dairy farms.

Establishment

Doug says it is really important to sow the Sulla as carefully as you would sow wheat. “You can’t just broadcast it as you might with some pasture seeds.” Inoculation with
A DBS tyned machine with parallelogram set up and presswheels sowed seed at 3-4kg/ha to about 15mm depth on 10" (250mm) spacing. The variety that Doug planted was Wilpena, which is an erect version recommended for producers making hay.

Weed control is very important for establishment, as Sulla is not very competitive when just starting out. Sulla seed producer Trevor Polkinghorne says, “It’s always good to start Sulla growing in a clean paddock but most pre-emergent herbicides like trifluralin and Avadex seem to work well.” Because he tends to grow pure stands for seed, broadleaf herbicides also have a place in Sulla production. “Metribuzin is probably the most useful herbicide I have tried. Once the crop is big enough I use 700g/ha of metribuzin over it. That is quite a high rate but it does an amazing job.”

“The Sulla starts off with spade leaves and then starts to change to more firm type leaves. As they develop, that is when the Sulla is safe to put the metribuzin on. We have also used Broadstrike but with high rates there is general shortening of the plants. If you have a pasture situation you need to be careful with that. Bedstraw will get through metribuzin, so a light rate of broadstrike can be useful.”

Doug’s weed control program consisted of Propizamide @1kg/ha, Trifluralin @1L/ha along with 1L of Roundup as a knockdown at sowing. He has also used Metribuzin. Later applications of glyphosate can be used in crop at modest rates in order not to damage the Sulla.

**Hay**

The Sulla is a biennial plant persisting for two years. After harvesting for contract seed in the first year and then following regrowth post hay cutting in the second year there was enough seed shed onto the ground to allow sufficient germination in the third year to grow another vigorous crop. This allowed three consecutive years of dealing with ryegrass in ways that were not possible in Doug Smith’s normal crop rotation.

Hay cutting is a particularly good way of getting ryegrass out of a paddock without using chemicals and Doug has been happy with a dramatic reduction in weed numbers since the introduction of Sulla for that purpose. However, the success of the hay venture itself has been problematic for him.

Last year, because of machinery breakdowns necessitating parts being shipped from Europe there was an unusually long delay in the timing of hay cutting. Although Doug was able to cut 8t/ha off 40ha @150/tonne, the quality was less than expected and half the hay still remains on the farm unsold. This was mainly due to plants
growing too large and stalky as well as some weather damage.

Undeterred and still happy with his opportunity for ryegrass control, Doug is confident he will be able to produce a higher quality product this year with more leaf and less stalk which will be valued by dairy producers.

Despite the difficulties Sulla still seems like a better option to Doug than oaten hay. “You only have to sow the Sulla once and standards for export oaten hay are quite high. You probably wouldn’t grow consecutive oaten hay crops anyway. The Sulla hay tested out at 18% protein compared to 11% for oaten hay.”

“Doug’s Sulla area is up to around 80ha which he thinks is a bit more than required. “It’s been a good solution for me to attack my resistant ryegrass and I think it is a good option on a small scale. If you have your own livestock it would be ideal. All the nutrition tests are excellent and it seems to be a great feed for all kinds of stock. It’s as good as lucerne hay.”