

Agri-sector Innovative Practice

FARMING YOUR WAY OUT OF CHILEAN NEEDLE GRASS

Tim Struthers is winning the war against Chilean Needle Grass and improving his profit at his Blind River farm in Marlborough.

Snapshot

- Farm: Blind River Farm
- Location: Marlborough
- Owner/Manager: Tim Struthers
- Operation: 35 ha of vineyard and 180 ha of grazing on clay based hill country.

CNG infested hill in summer, looking out on lucerne mixed sward and grazing dairy heifers.

Tim farms 35 ha of vineyard and 180 ha of grazing clay based hill country in the core CNG area. The farm was heavily infested with CNG around 5 years ago when he purchased it. Tim has used a two year cropping system followed by regrassing to turn these pastures into highly productive farmland with minimal numbers of CNG plants. Tim has been working through his property developing it block by block. Firstly he subdivides the paddocks into approximately 4 ha paddocks and sets up a stock watering system. He then gets a soil test and depending on the test result applies a capital dressing of usually 2.5 tonne/ha of lime and 250 kg/ha of sulphur super. Fertiliser is then applied each year in the development phase until the Olsen P reaches 20 after which maintenance fertiliser is applied.

Tim identifies a CNG paddock and grazes it to reduce the pasture cover and then he boom sprays it in October/early November with 3L/ha of Taskforce (this is supplied free by the council) and 4L/ha of 470 Roundup. Taskforce will continue to kill CNG and other low fertility grasses for up to 4 years which reduces the competition for the high quality legumes and plantain that are sown. Tim manages to spray most of the steeper slopes in the paddock with a 200m hose off the tractor. He leaves the really steep, bare northerly slopes unsprayed with Taskforce at this point, not wanting to open these up and risking erosion problems later.



The glyphosphate kills all vegetation on the paddock and it is then left to summer fallow to build up soil moisture for autumn sowing, while also adhering to Task Force's 3 month with-holding period. In February he may then spray the steep northerly slopes with Roundup and oversow with cocksfoot, plantain and sometimes sub clover if it is not present already. At the same time the previously sprayed taskforce+glyphosphate parts of the paddock are now bare and he gets a contractor to drill with either rape or barley with a Duncan direct disc drill for late autumn and winter feed. There are two permanent pasture mixes that are sown depending on the aspect of the block. Northern facing blocks are sown in early October with a Lucerne plantain cocksfoot mix. For southern facing blocks a Cocksfoot plantain clover mix is sown. These will provide quality bulk feed over the whole season.

Blocks going into the Cocksfoot mix are summer fallowed again and direct drilled in early Autumn. Tim has found that the cocksfoot, as well as providing bulk feed in winter, outcompetes CNG and lucerne and plantain are also resilient to the residual activity of Taskforce spray. This year he is also trying prairie grass in the mix. Tim gets good agronomic advice on cultivars and seed mixes from OsGro Seed but other seed providers can also provide the advice needed to establish and manage these crops.

Occasionally an isolated CNG plant is found but it is easily controlled by spot spraying. Tim can spot CNG, even in its vegetative state, at a distance, while driving along in his ute!

While developing his farm, Tim works at getting a good balance of drought tolerant pastures based on lucerne for the summer and permanent pasture, and rape or barley pastures for winter. Cocksfoot based pasture outcompetes CNG, is persistent and also gives good cattle production, especially the newer more palatable cocksfoot cultivars like Saffin. The nitrogen needed to support cocksfoot palatability comes from the lucerne and clovers.



These sward mixes work well with Tim's cattle finishing policy. Given the workload with sheep and the need to remove sheep from CNG infected paddocks from October to March, Tim has opted to finish cattle, though he has recently purchased some lambs to finish on the lucerne based swards which should complement the winter grazing in the vineyard. He has also had success with the dairy grazers, which provided him with a good steady cashflow and he even used them to tread in seed after hand oversowing steep slopes and also grazed them in the vineyard.

Tim purchases young bull calves at 100 kg LW in November and grows them at just over a 1.2 kg/day and sells them in excess of 620 kg LW at 16-18 months before December the following year. A level of production that would not be possible on the CNG pastures, in fact Tim believes he has increased the production from his grazeable land by 5 fold. The bulls are grazed in mobs of up to 50 in 2 wire electric fenced paddocks. He finds that bloat is not an issue on the lucerne+plantain+cocksfoot mixes, with all cattle being shifted mid afternoon when required.

On the clay based Blind River hill country, where CNG used to reach waist height, Tim now has an economic cattle finishing operation and a farm with improved pastures, that has increased markedly in capital value.

The Chilean Needle Grass Action Group have also featured Tim in a sort video which can be viewed at: <https://www.youtube.com/watch?v=fXxDnc57Vsc>

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