

Case Study 2 Allen Lim

Purpose:

To describe the nature of vegetable production operations in Canterbury and demonstrate what we are doing in terms of managing potential leaching of nitrogen to inform the rule framework in the Plan.

1. Base information

Area of growing operation: 150 Acres (60Ha)

Number of properties/ sites that it is undertaken on: 4

Ownership of sites – owned/ leased/ shared: Roughly 4/5 of my land is leased

General location in Canterbury: Lincoln/Rolleston

Water zone location : Selwyn – Te Waihora

Number of staff employed. 12

2. Rotation

Descripton:

Still establishing but on home block and long term lease block, generally brassica crop / leafy crop / spring onion/ pumpkin / wheat / some onions and odd ha. of sweetcorn.

On one lease block, I double crop broccoli for 1 year then hand it back to the farmer for grazing and wheat for 3 to 4 years before leasing back again. I get a new block the following year.

I also do land swap with neighbouring farmer to achieve rotations. Under this arrangement, I get new land every year for broccoli.

Length of rotation: Still establishing but varies across my blocks from 2– 9 years.

I have no control over the management of the lease land when it is under use by the owner. I dont get any records from land owners other than being told what crop was in there previous. I always get soil tested before going into new block. I will not go in if a brassica has been grown because of the risk of clubroot infections.

3. Irrigation:

I have access to a gun, k-lines and a boom irrigator. The equipment is all mobile so I can move across my different blocks. To minimise the amount of watering I have to use, sometimes I only grow a crop for the winter. For example, I grow winter cabbages and a spring cauliflowers - both are transplanted and

autumn, watered once and usually never water again. I also grow a crop of red onions and pumpkins which are hardly ever watered because I am not after the huge yeilds and the pumpkins are basically a cover crop. All the other crops get about 25 – 30 mm as a maximum application and between 75 & 250 mm over the season of growth with Brussels sprouts using the most water.

4. *Fertiliser use:*

Fertiliser is targeted at the crop being grown and I use mixes specially prepared for horticultural use and some are formulated specifically for a particular block of land. Mostly prills are used so that it releases slowly and spreads more evenly. the fertiliser is either banded, incorporated or side dressed depending on the nature of the crop and the needs of the crop at the time of application.

5. *Management practices including practices to reduce potential for leaching*

- All fertiliser is applied according to soil tests and fertiliser recommendations
- Irrigator speeds are computer controlled so as to apply correct amount of water evenly and to ensure soil does not reaching saturation
- Prills are used instead of powder mixes (slower release and more accurate)
- Rotations are followed that maintain soil nutrition and minimise disease
- I seek to grow on deeper soils with at least 500mm cover of topsoil.
- I incorporate residual matter and covercrop to retain soil organic matter.
- Records are kept of all practises followed

6. NZ GAP: I am a member of NZGAP and have been for approx 10 years.

7. **Economic information:** I will speak to this on Thursday.