

Case Study 3: Lederbrand Produce (South Island) Ltd.

Purpose:

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

1. *Base information*

Area of growing operation: 600 Ha

Number of properties / sites that it is undertaken on: 2

Ownership of sites – owned/ leased/ shared: 400 Ha owned, 200 Ha leased

General location in Canterbury: Chertsey (Ashburton)

Water zone location: Ashburton

Number of staff employed. 7 full time,
15 seasonal 9-10 months of the year,
50 seasonal 2 months (March/April)

2. *Rotation*

Description: Generally, we rotate each crop once in every three years and occasionally we will shorten that to two years. Rotation on lease land is same as owned land because of the three year leases we have (longer term).

Rotation tends to be something like:

- Wheat / Squash / carrots or red beets / Seed peas / Broad beans / Broccoli / Cereals or grass as a break up mix.
- 90% of cropping land is sown in annual rye grass as a cover crop over winter.

Crops grown

- Cereals (wheat and barley)
- Seed production
- Process beans or peas

- Brassicas
- Squash
- Grass – silage.

Length of rotation: 3 years

3. *Irrigation*

We use laterals that are very efficient. Our water application is highly monitored and controlled for quality outcomes. We use between 15 – 20 mm per application depending on the crop and between 45 and 100mm per season/ha depending on the year, the crop and what our consents allow. We spend over \$80k each year for power on irrigation so we intensively manage water use.

Area under irrigation: 600Ha

4. *Fertiliser use*

We use a combination of different purpose – made fertilisers recommended for different crops. On some crops we do not fertilise – like peas. We also use manures and seaweed and we have trialled mushroom compost but as much for organic matter as anything else.

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

- Fert application based on comprehensive soil testing programme
- Incorporation of most residuals to improve soil organic matter
- Use of break crops and grass as well as the other parts of the rotation
- Very little fallow time
- Efficient irrigation (not beyond field capacity)
- Split applications for fert
- Fert applied according to yield estimates
- Accurate record keeping and proof of placement

6. *NZ GAP: We are NZGAP certified and have been for 8 years*

7. *Economic information:*

- LBSI has an annual turnover around \$4 million
- LBSI has an annual turnover for wage and salaries of around \$1.3 million
- Supply leading supermarkets domestically on a weekly basis
- Export product to Japan and Korea (March/April).