



PARKER'S GARDENS



Commercial Vegetable Production Nutrient Management



Nutrient Management Bharat Jivan

Intro Jivan's operation

- ▶ Our family farm operate on 250ha of owned and leased land.
- ▶ 12 different sites.
- ▶ Land is located in both Auckland and Waikato regions
- ▶ We grow Potatoes, Onions, Lettuce, Broccoli, Pumpkin, Barley.



Pre plant planning

- ▶ To grow a crop a lot of planning needs to be done, well before the seed is sown.
- ▶ Crop rotation is critical in being sustainable,
- ▶ Our growing operation has all our fields soil tested annually well before planting begins.





Crop needs analysed by technical specialists

- ▶ The test is analyzed by a technical advisor.
- ▶ The technical advisor then sends us a recommendation based on crop nutrient requirements.



Decision making in applying fertilisers

- ▶ After planting, fertiliser is applied to a prescription, a prescription, that has been refined over many years.
- ▶ Deciding how much fertiliser to apply is not a simple decision.
- ▶ Factors such a crop history, recent rain fall, time of year and temperatures need to be factored.
- ▶ After 70 years of experience in growing and applying fertiliser. We have got some ideas.



Getting it right

- ▶ Fertiliser application timing and rates are critical in producing a successful crop.
- ▶ Success means being profitable, but more importantly producing a crop that is marketable.
- ▶ Too little or too much, can define success.

Consequences of getting it wrong

- ▶ We have learnt from experience that applying too much nitrogen can effect the quality of all vegetable crops. Similar to a human consuming too much sugar.
- ▶ Growers never get paid for a crop that decays in the paddock.



Neck rot



Soft rot

Cost of fertiliser and sensitivity of crop profit margin

- ▶ Fertiliser is a significant cost of production.
- ▶ We use the highest quality fertilisers on the market,
- ▶ During the 1980's, our sector changed from using Urea to slower release Calcium Ammonium Nitrate (CAN)
- ▶ Applying the correct amount of Nitrogen is a balance between having a financially viable yield and achieving the best quality possible.



We strive to always improve

- ▶ NZ Growers are always striving to improve in all facets of their business.
- ▶ We have invested GPS and fertiliser applicators to achieve greater efficiencies.
- ▶ Calibration of fertiliser spreaders is done yearly.



We strive to always improve

- ▶ This new spreader acquired this season will improve our fertiliser placement.
- ▶ To keep up with latest technologies is not cheap. Growers are continually investing. This new spreader cost \$35k.



To Finish

- ▶ We support Hort NZ's submission and recommendation with the need for a Nitrogen Reference Point.
- ▶ We support the idea of creating a Proxy system that will represent a range of rotations on different soils and climate.
- ▶ As growers we are constantly looking for better efficiencies and how we can continue to farm sustainably.

