



Cover crop options for better fresh vegetables



Project Background

John Clarke has grown vegetables for the fresh market for the past 30 years. His Woodhaven Gardens operation covers about 200 ha in Horowhenua, employing some 100 full-time and seasonal workers. John believes healthy soils are central to productive and profitable cropping.

He and crop manager, Antonia Glaria, are improving soil health in their fields through several new initiatives. The first of these is introducing an improved rotation that includes cover crops whenever a field is not being used; leaving fields fallow is damaging, especially over the rainy winter months. In particular, John and Antonia are interested in cover crops that provide added value for money beyond the typical grass options. Top of their list are mustards, which contain potent

fumigants that can help to reduce the incidence of soilborne diseases like Pythium, Fusarium, Verticillium and Sclerotinia. These diseases can cause significant loss of yield and profit at Woodhaven Gardens. Chemical control has proved effective to date, but is costly.

John and Antonia are also exploring practices that reduce surface runoff in their fields. Too often rainfall moves into low-lying dips, carrying with it any improvements in soil condition or fertility they have made. This ponding even for short periods can reduce yield in all their crops. Compaction can also be a concern in these wet areas during routine management operations to apply fertiliser or control pest and diseases.



Project Goals

The goal of the 'Holding it together' project at John's property is to assess various cover crop options during previously fallow periods. Several promising mustard varieties were sown in June and are being compared directly to a typical grass option and their previous fallow approach. These crops will be grown through into spring, and improvements to the soil and subsequent economic crop measured. In particular, any disease control benefits will be followed.

To reduce surface runoff John and Antonia have experimented with furrow diking, a simple but effective practice that creates small soil dikes in the wheel tracks. These largely eliminate the movement of water, reducing surface runoff and the impact of ponding.

It is early days for both initiatives, but they're keen to increase the value of their soils at Woodhaven Gardens for years to come.



FURTHER INFORMATION //

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