

Total Irrigation Flexibility

NEW ZEALAND GROWER SAVES WATER WITH PRECISION VRI

Johnny Fraser considers water management one of the keys to profitably growing multiple crops on his New Zealand farm. Thanks to Precision VRI, a precision irrigation product from Growsmart™ by Lindsay, Fraser plants, grows and harvests his crops when and where he wants in his field.

Precision VRI (Variable Rate Irrigation) provides individual sprinkler or zone control. With easy-to-use mapping software, Precision VRI allows growers like Fraser to create custom irrigation zones that can be defined by soil type, topography, crop type or field obstacles. The variable rate program is then loaded into the Precision VRI controller that directs individual sprinklers through wireless nodes.

Fraser makes maximum use of Precision VRI to raise irrigated potatoes, peas, sweet corn, silage corn, wheat and barley – all in the same field. His Zimmatic® by Lindsay 9500 Custom Corner system includes eight towers plus the corner arm and irrigates the 227-acre (92-ha)

field, which is split into five square blocks for a multitude of crops.

“Basically, I am using a circle to water square blocks and that’s where Precision VRI comes into play. I now have the flexibility to do whatever I like under that pivot as far as changing crops. I can adjust any time to suit my cropping needs,” Fraser says.

Fraser’s farm is located near Otane, on New Zealand’s north island. Fraser says the climate in his area is similar to California’s so he is able to raise multiple crops throughout the year. Many of his crops, including the peas, potatoes and sweet corn, are processed for food.

“We have heavy soils so managing the water is critical,” he says. “Precision VRI works perfectly for my farming operation.”

Fraser’s cropping patterns vary, but he describes a typical scenario in which his pea crop is followed by sweet corn and his potato crop is followed by wheat or a different crop. All of the crops are planted and harvested at different times of the year.

Aerial image of Fraser’s 227-acre (92-ha) field where he raises irrigated potatoes, peas, sweet corn, silage corn, wheat, barley and vegetable crops. Irrigation water is applied according to soil type, topography, crop type or field obstacles.

Brown areas (road) never get watered.

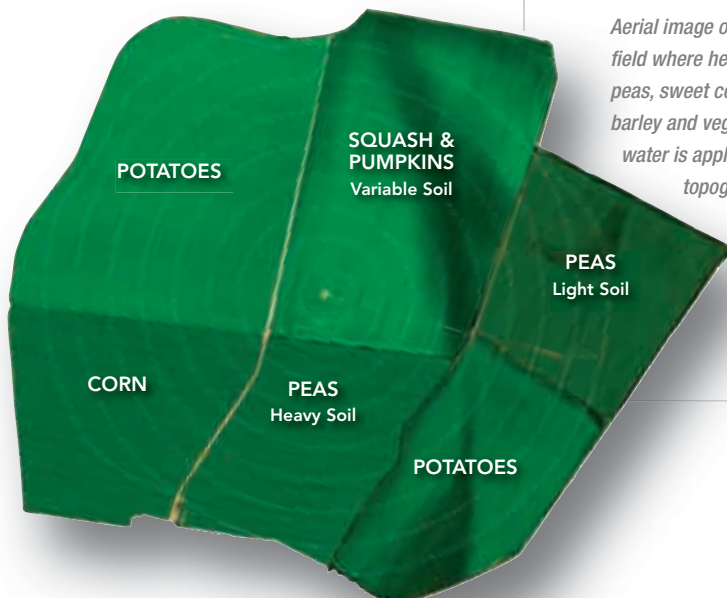


With Precision VRI, I have unlimited crop and agronomic options. I can plant and harvest when and where I want.

– Johnny Fraser

BENEFITS OF PRECISION VRI

- Individual sprinkler or zone control
- Infinite number of irrigation zones
- Saves up to 30 percent on water costs
- Uses less energy
- Virtually unlimited crop and agronomic options
- Compatible with most center pivot models
- Simple map-based software provides complete control
- Key water management tool used on Johnny Fraser’s 2,100-acre (850-ha) diversified New Zealand farm
- No filtration required





With Precision VRI, each sprinkler is programmed to turn on/off or pulse at a customized rate depending on crop, terrain or obstacle. Easy-to-use custom mapping tool (shown at right) defines variable application rates for individual sprinklers over the entire field.

Fraser estimates Precision VRI has resulted in one-third less water usage. "It's basically saving me 30 percent on costs since I don't have to pump as much water."

While groundwater, the source for his irrigation, is still plentiful in his area, Fraser predicts managing and using

water wisely will become more and more critical in the future.

"As a grower, I believe the single biggest thing you can do to increase yield is to manage your water, just like you manage your fertilizer, chemical and other crop inputs," Fraser says.

He currently does not chemigate or fertigate but is considering it since Precision VRI gives him the flexibility to do so in the future.

"It's very simple to run. With Precision VRI, I have unlimited crop and agronomic options. I can plant and harvest when and where I want."

www.zimmatic.com/variable-rate-irrigation-1



As a leader and pioneer in irrigation technology, Zimmatic is uniquely positioned to provide a powerful yet simple solution to your water management needs. To learn more about Precision VRI, visit our website or talk to your local Lindsay dealer.



SOURCE: Johnny Fraser and Lindsay (2011).

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