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By Matthew Jones

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## Autogrow targets meaningful data

Ag tech company aims to translate large quantities of data into quality insight



Autogrow CEO Darryn Keiller (right)

**N**ew Zealand-headquartered ag tech firm Autogrow is working to make data meaningful to growers.

The company claims over 32 trillion data points flow through its systems each year, spanning a vast array of fresh produce lines grown in greenhouses, urban farms and protected cropping systems in over 40 countries.

"It would be one of the most substantial collections for indoor agriculture to date," said Autogrow CEO Darryn Keiller. "Data is king when it comes to innovation but what you do with it is the key."

Autogrow currently sources data from its MultiGrow, Aphaea, IntelliDose and IntelliClimate control systems. Depending on the system being run, its platform can collate microclimate data every 3-5 seconds, including air temperature, humidity, light levels, CO<sup>2</sup> and nutrient levels, as well as local macroclimate data.

Each grower can access their own data via the cloud or a provided controller at any time, with enterprise level security in place.

"The tricky part is, like most systems, a lot of the data generated contains noise. To date, our processing algorithm has filtered and stored over six billion data points which are then ingested by our state-of-the-art data pipeline, and analyzed by our scientists for our customers," Keiller added.

"Our strategy is to orchestrate the data to make it meaningful for our growers, giving them deeper insight into their crop environments, revealing critical factors of crop cycle and seasonality, to enable smarter decisions and better outcomes."

Autogrow's director of crop science and agronomy, Dr Tharindu Weeraratne, said the information provided a true reflection of how crops are responding to their environment and what the optimum levels are for increased yields.

"All the factors involved including external and internal climate, plant biology, nutrient requirements, technology usage and how everything interacts together is vital," Keiller said. "Add in the effects of consumer needs, geopolitical factors and climate change, and those leafy greens or tomatoes are more complex than most consumers realize."

"There are a few factors that can't be controlled with crop production but by gaining knowledge and understanding of those factors you do have control over, it's really the first step to true innovation."