- providing insights and accountability
- facilitating remote operations
- making sense of data
- enabling benchmarking

SWAN systems

Scheduling water and nutrients

WWW.SWANSYSTEMS.COM.AU | WITHIN AUSTRALIA : 1300 12 12 50 | INTERNATIONAL : +61 8 6323 2206

BACKGROUND

As a horticulturalist you have a lot on your plate. Not only do you need to manage your crops to get the right quality of produce and the best yield possible, you need to ensure your crops are disease and blemish-free. A key step to help you achieve this is to closely manage your soil moisture profile and nutrient applications.

Managing your crops to maximise returns can be complex when you have siloed data sets across the farm, different soil types, and a mix of varieties. By providing your crops with the right amount of water and nutrients, at the right time, you can satisfy the bulk of their regular management requirements.

SWAN Systems is a management, monitoring and reporting tool that aggregates and correlates farm data to provide you with the insights you need to achieve your desired results. Using SWAN Systems you will be able to optimise input costs, and desired outputs while minimising environmental impacts. Such a management regime is the most economically viable approach to managing your crop requirements.

WHO ARE SWAN?

The founders of SWAN Systems are farmers and industry consultants which gives them a unique insight into the practical issues confronting producers. This has shaped product functionality and rigor to ensure it is relevant to grower demands.

SWAN Systems evolved from years of working in irrigated horticulture where the objective was to determine exactly when and how much irrigation and fertiliser was required to optimise production and maximise farm gross margins without harming the environment.

SWAN Systems is a cost effective management tool that assists growers to optimise production. It can use your existing hardware and is able to integrate all relevant data from multiple sources. Proven algorithms process this data, which is then available to the user to assist with management decisions. SWAN can also provide the user with System Suggested Irrigation.

SWAN has capabilities across key areas including irrigation, nutrients, spatial imagery for monitoring, alarms/alerts and reporting.

KEEPING IT ALL TOGETHER

Horticultural crops are sensitive to under and over watering. Even a minor water stress could lead to a substantial reduction in crop quality and size, therefore it is absolutely essential to optimise application of both water and nutrients to your horticultural crops.

Many farms have plenty of data coming in from equipment such as soil moisture probes, irrigation controllers and their own weather stations. Very few farms are able to collate and use this data to give them insight into their crop management. SWAN Systems enables you to dispose of your spreadsheets by giving you a tool that takes this data, processes it, and provides you with detail to inform your decision making.

SWAN's ability to integrate data from multiple sources across the farm provides the detail for more informed decision making.

- Use site-specific data as the basis for irrigation and management decisions
- Use System Suggested Irrigation to schedule how much and when to irrigate
- Manage water allocations and irrigation infrastructure constraints
- Use existing irrigation hardware, soil moisture probes, weather stations
- Maintain required soil moisture balance for disease prevention
- Maximise efficiency on water and fertiliser uses
- Increase water use efficiency per kilogram of crop produced
- Increase gross margins across all crops and blocks

STAY AHEAD OF THE CURVE

IRRIGATION

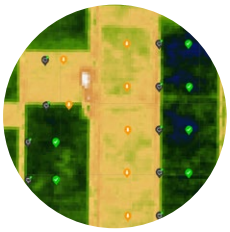
- Seasonal irrigation budgeting based on historical data.
- Daily scheduling up to 7 days in advance based on site-specific weather forecasts.
- Automated data collection via telemetry.
- Configurable for soil, crop and phenological/varietal variables.

NUTRIENTS

- Uploading of seasonal nutrient plans to establish pre-season budgets.
- Analysis of optimised crop specific nutrient uptake curves for within season planning.
- Database of fertilisers.
- Data collection for tracking of within-season budget to actual performance.
- Analysis of nutrient loading of background water for incorporation with fertiliser plans and to monitor application of potential contaminants.

LOCATION / GROUP MONITORING

- Google Maps functionality.
- Ability to group sites in multiple ways (e.g. location, crop type, etc.) for planning & reporting.
- Ideally suited for operations that have multiple sites or crop types.



SPATIAL IMAGERY

- Use of NDVI (normalised difference vegetation index) data for crop health analysis to monitor management performance.

ALARMS / ALERTS

- Dashboard presentation for ready reference of current and forecast issues and/or problems.

REPORTING

- Reporting (budget to actual) for management and compliance purposes.

Unit 3, 262 Marion Road,
NETLEY SA 5037

www.swansystems.com.au

AUS: 1300 12 12 50
INT: +61 8 6323 2206