



COSTA BERRY MINIMIZED GUESSWORK WITH MOISTURE BALANCE MODULE

Costa Berry Category is a world leader in blueberry varietal improvement. Derek Wright, the horticulturist for Berry Category, chose Priva to help to improve their irrigation scheduling of substrate berry crops.

- > Improve irrigation scheduling for berry crops on substrate
- > Increase the pot moisture in a step-like program
- > Easily and automatically achieve the appropriate dry down
- > Optimise root conditions and avoid fruit quality issues

Challenge

Costa Berry Category is at the forefront of genetic and growing innovation. The company is committed to sustainable growing and production practices. Precise and timely irrigation would help Costa improve crop quality, increase fruit production and avoid waste of water and fertiliser.

Solution

Priva helped Costa Berry Category, initially at their Corindi site, with improving their irrigation scheduling using Priva Moisture Balance Module. This module determines every irrigation cycle fully automatically based on three important influences: water evaporation, plant water use, and the water content of the substrate.

Benefits

According to Derek the most essential benefit of Priva Moisture Balance Module is the ease in achieving the appropriate dry down, which improves root conditions and avoids fruit quality issues.



"We have been using Priva products since 2013. We chose Priva to help improve our irrigation scheduling of substrate berry crops." - Derek Wright, Costa Berry Category

Costa is Australia's leading grower, packer and marketer of premium quality fresh fruit and vegetables. Operations include more than 3,500 planted hectares of farmland, 30 hectares of glasshouse and seven mushroom growing facilities across Australia. The Costa Berry Category is at the forefront of genetic and growing innovation. Derek Wright is a horticulturist for the Berry Category at Costa. "We are the only Australian blueberry grower to achieve year-round production of blueberries and raspberries. Our berry farms are in Far North Queensland, New South Wales, Tasmania and Western Australia. In all that we grow, we are committed to sustainable growing and production practices." The berries are marketed under the Driscoll's brand in Australia. Costa has expanded internationally and has joint venture farms in Southern China and North Western Morocco.

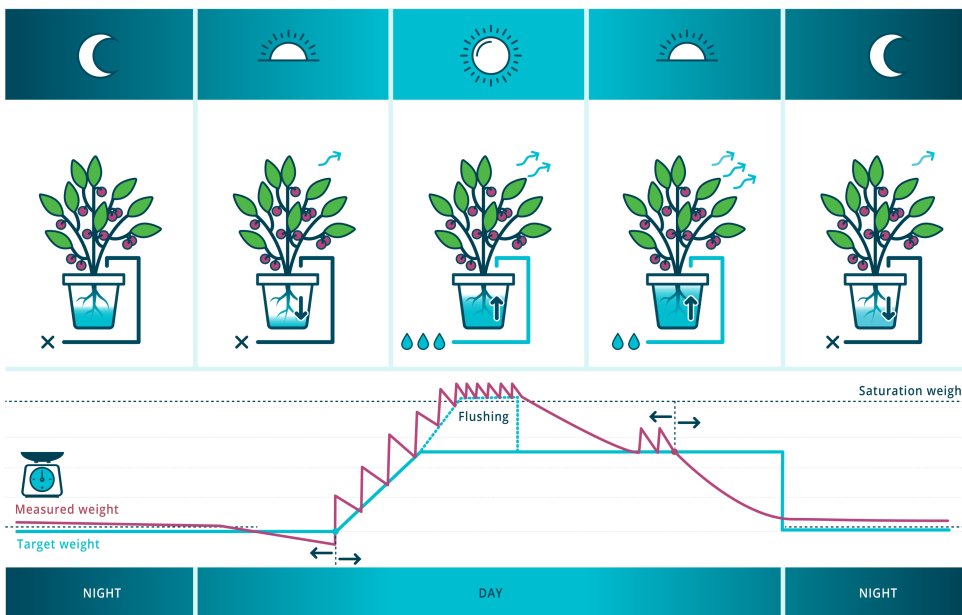
Improve irrigation scheduling

Costa has been using Priva products since 2013. "We chose Priva to help improve our irrigation scheduling of substrate berry crops. At the time using radiation sum was a step forward in tailoring irrigation towards plant requirements and avoiding over or under watering," explains Derek Wright. "At that time, we managed our moisture balance by using a daily drainage percentage. Cycles were often scheduled using radiation sum in the previous Priva Office versions. In some cases, we managed irrigation cycles based on time with adjustment throughout the day based on weather conditions".

"Priva Moisture Balance Module enables Costa to irrigate at specific moisture contents or pot weights"

From guess work to precisely managed

"We started working with the Moisture Balance Module to take out some of the guess work in scheduling irrigation cycles. While radiation sum was an improvement on clock starts, creating an appropriate dry down in the afternoon was difficult with radiation sum. In our environment we grow plants in semi protected tunnels that are exposed to low humidity and wind, using radiation sum would often result in an extreme dry down and at other times would result in not enough dry down. The Priva Moisture Balance Module enables Costa to irrigate at specific moisture contents or pot weights. It removes most of the guess work for irrigating substrate berries. Substrate conditions can be managed more precisely, and root health is optimised."



Moisture sensors and weigh scale

“The system works by measuring moisture or weights on a continuous and real-time basis and transmitting it to the Priva water unit where it can automatically trigger irrigation cycles based on set parameters. This enables us to more precisely wet up the pots in a gradual manner because we can increase the pot moisture in a step-like program. Particularly useful is the ability to manage the dry down in the afternoon and the moisture sensors have enabled us to promote better root growth by avoiding saturated conditions overnight,” said Derek Wright.

Benefits

According to Wright the most essential benefit of the module is the ease in achieving the appropriate dry down, which improves root conditions and avoids fruit quality issues due to excess substrate moisture. “I find it a great way to irrigate berry crops, it makes logical sense and it is an easy tool to adjust and change based on physiological changes in the plants. Scheduling is more adaptable to changes in weather condition and plant water demand.”

Wireless measurements

Costa uses the add-on Wireless Measurements for the Moisture Balance Module. According to Wright, the wireless solution is easy to use and visually very easy to understand. “A big advantage is the identification of which weight saturation occurs. Long-term information on moisture trends can be used in conjunction with field checks to understand how effectively we are manipulating substrate moisture. I would recommend this add-on to other growers for sure!”

Yield



MORE INFORMATION ABOUT PRIVA MOISTURE BALANCE MODULE?

WOULD YOU LIKE TO KNOW MORE?

Feel free to contact us!



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