New interim fertiliser guidelines for Australian blueberry growers

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The Clean Coastal Catchments project is funded under the NSW Government's Marine Estate Management Strategy.
The ten-year Strategy was developed by the NSW Marine Estate Management Authority to coordinate the management of the marine estate.

The NSW Department of Primary Industries (DPI) has released new interim guidelines for fertiliser use in the blueberry industry to address the current lack of appropriate information for Australian growers.

Better matching of fertiliser application to crop needs will help keep nutrients on farm, benefiting both productivity and profitability. More efficient fertiliser application can reduce the risk of excess nutrients ending up in farm run off and polluting water quality in creeks and rivers and the marine estate.

NSW DPI now recommends the application of no more than 100 to 121 kg of nitrogen per hectare per annum, in mature crops of fertigated blueberries grown in soil with a plant density of approximately 3500 plants per hectare.

The revised recommendation is less than the rate previously recommended by DPI in 2006, and is based on the most recent evidence for nutrient requirements for the Northern Highbush blueberry variety, from US researchers Vargus and Bryla, where nitrogen is applied annually as urea through fertigation.

The new DPI guidelines have been compiled by Senior Research Scientist, Dr Sophie Parks."These are interim guidelines aimed at allowing industry to provide feedback on their suitability," explained Dr Parks.

Given the lower nitrogen requirement of Southern Highbush and Rabbiteye types compared with Northern Highbush (Bryson et al., 2014), the new guidelines recommend the optimum rate of nitrogen for Southern Highbush and Rabbiteye is less than 100 kg of nitrogen per hectare per annum applied through fertigation.

"However, the nitrogen requirements for blueberry crops also depend on other factors such as the season, the stage of growth, and the soil type, and the combined impact of these factors is not well understood for crops grown on the mid-north Coast of NSW and more northerly regions," said Dr Parks.

Research currently being undertaken by the Clean Coastal Catchments (CCC) project is investigating the nitrogen needs for Southern Highbush grown as an evergreen crop, particularly in the Coffs Harbour and Central Coast regions of NSW.

Further modifications will be incorporated into the DPI's blueberry fertiliser guidelines as the farm and pot trials progress. The CCC research will gather more detailed data on how nitrogen is taken up by the plant and how nutrients are lost from the blueberry growing system, looking closely at associations with growth phase and climate.

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References

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