

# Variable rate fertiliser spreading

## Using soil fertility mapping

This fact sheet is part of the Profitable Dairying series - *Good business management reduces greenhouse gas emissions.*

The Australian dairy industry has committed to reducing greenhouse gas emissions intensity (emissions per litre of milk produced) by 30% by 2020.

Variable rate fertiliser spreading allows for fertiliser, lime, gypsum and other farm inputs to be applied at different rates across a paddock according to the measured variation in soil nutrient levels.

This technology allows for more targeted application of nutrient reducing environmental impact and input costs for the farmer.

### Why and what is variable rate fertiliser spreading?

Soil nutrient levels can vary greatly across a paddock due to a number of factors; stock camps, shelter, irrigation, soil types and paddock history. Variable rate spreading allows farmers to target the right rate of fertiliser at the right place to optimise their nutrient inputs.

Increasingly farmers are looking at variable rate fertiliser spreading as a way to ensure maximum utilisation of nutrients applied and reduce expenditure and wastage.

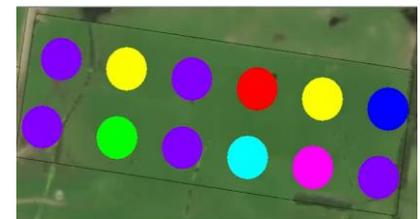
### How does variable rate spreading work?

Variable rate spreading requires comprehensive soil fertility mapping which requires a number of soil samples to be taken from known locations within a paddock to establish zones.

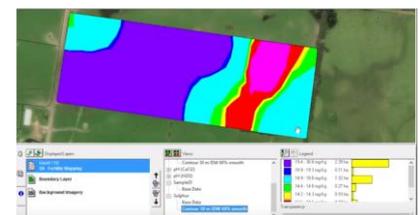
These results are then used to create fertility zones within a paddock for the different nutrients which are then uploaded to GIS software.

Specialist software installed in spreader truck and tractors are then able to alter the rate of fertiliser application according to the fertility zones in a paddock.

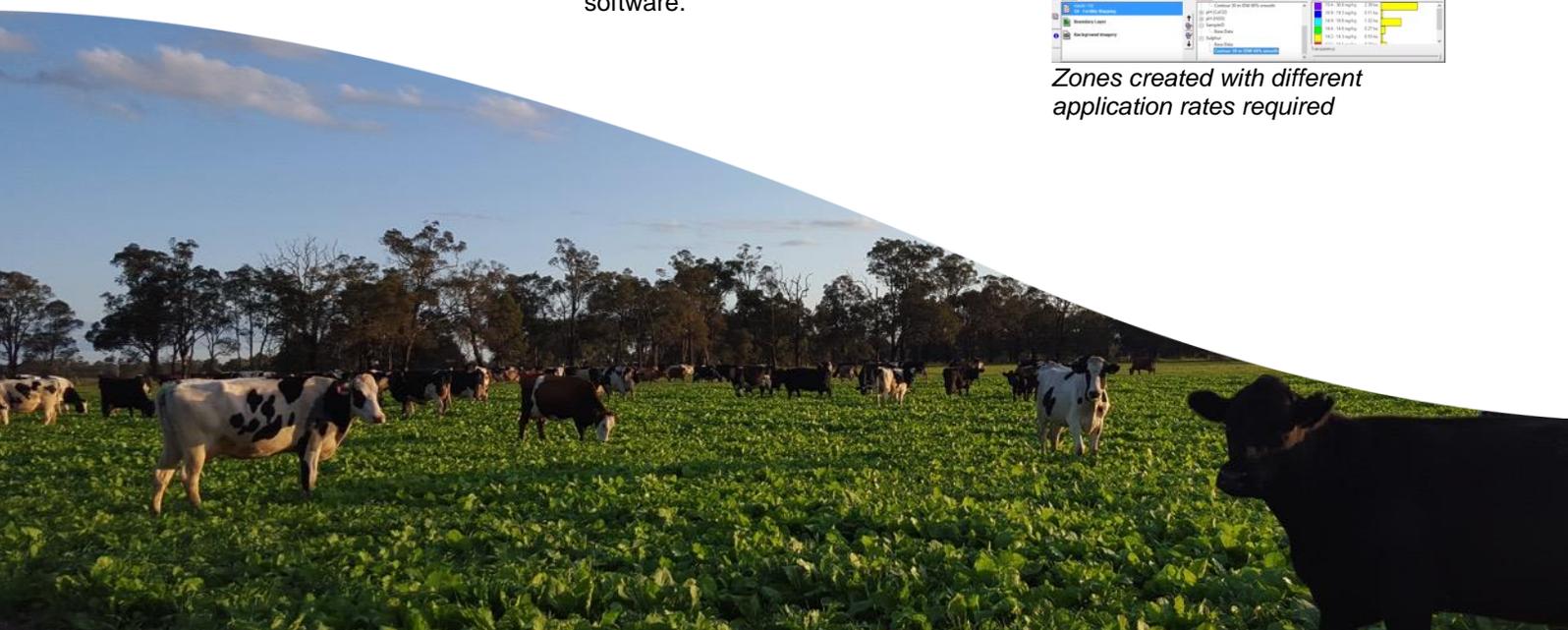
Variable rate application can also be used when there is known nutrient transfer, either by animals or often flood irrigation. In this case farmers will apply more nutrient at the back of a paddock than the front, or at the top of an irrigation bay rather than the bottom.



*Soil test zones used to establish nutrient levels and variation across a site*



*Zones created with different application rates required*



---

Published by Dairy Australia Limited with support from the Australian Government.

Whilst all reasonable efforts have been taken to ensure the accuracy of the **Variable rate fertiliser spreading** publication use of the information contained herein is at one's own risk. To the fullest extent permitted by Australian law, Dairy Australia disclaims all liability for any losses, costs, damages and the like sustained or incurred as a result of the use of or reliance upon the information contained herein, including, without limitation, liability stemming from reliance upon any part which may contain inadvertent errors, whether typographical or otherwise, or omissions of any kind.

© Dairy Australia Limited 2016. All rights reserved.

**Dairy Australia Limited** ABN 60 105 227 987  
Level 5, IBM Centre  
60 City Road, Southbank VIC 3006 Australia  
T + 61 3 9694 3777 F + 61 3 9694 3701  
E [enquiries@dairyaustralia.com.au](mailto:enquiries@dairyaustralia.com.au)  
[dairyaustralia.com.au](http://dairyaustralia.com.au)

