

## Unlocking the Value of Organic Amendments: Organic Amendment Nutrient Calculator

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The organic amendments nutrient calculator is designed to be a farmer-friendly phone application which will assist with the integration of organic amendments into farm nutrient budgets. Farmers will be able to simply upload their product's nutrient analysis, as well as basic information such as crop, soil type and target N requirements, and receive high resolution estimates of nutrient release. Users will also be able to upload initial soil test results along with product analysis for assistance in calculating OA application rates, as well as assistance in catering for potential macro and micronutrient deficiencies in their soil system. This phone app aims to be a hub for field fertiliser application, encouraging the accurate application of organic amendments, as well as accurate supplementation of synthetic fertiliser. In doing so, the app should help farmers reduce their crop fertilisation costs as well as the harmful environmental impacts resulting from overapplication. Farmers will also be able to use the app as a decision tool on selecting fertiliser products best for their cropping system, providing product comparison and financial estimates based on average costs at the time.

This calculator is being developed using data from a combination of laboratory and field trials across Australia, which investigated long-term nitrogen mineralisation in a variety of organic amendments after application to various Australian soils. Modelling of the nitrogen release data against nutrient parameters within organic amendments allows for the development of kinetic equations which will provide high resolution estimates of nitrogen release. Initial beta testing of the phone application has been completed for user group validation and feedback.

