Fertilizers for animal production

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Overview

The annual cost of phosphatic fertilizers, applied to Australian pastures and crops, approaches $A350 m. Efficient fertilizer use remains a priority area for research. Topics to be discussed and questions to be addressed in the three papers which follow are set out below.

Can we employ analyses of spectral reflectance, from data provided by earth–resource satellites, to predict the responsiveness of pasture to fertilizers? (Vickery)

The demand for increased levels of agricultural production has led to greater specialization, and trends away from the traditional farming practices in which nutrient recycling was an integral part. Fertilizers play a vital role in improving production, but they are becoming an increasing proportion of total costs and there is a need to improve their effectiveness. Some of the factors which influence the efficiency of fertilizer nutrient use are discussed with the aim of setting guidelines for the specification of new fertilizers. (Till)

Given that nutrient cycling from residues, which is regulated by biological processes, makes a major contribution to the mineral economy of grazed pastures, then what is the potential for the agronomic management of residues to enhance cycling activity? (Hutchinson and King)

Fertilizer and agronomic history, drought, stocking policy and their combined interactions are the major determinants of the status of a pasture resource. The development of new technology for fertilizer use, along with a wider view of the biological processes in pastures, are needed to plan strategies which can constrain costs, stabilize the pasture resource and maintain a profitable level of animal production.