

MEDIA RELEASE

22 January 2009

Farming for the future with fertiliser science

Rising fertiliser prices have got farmers asking how they can get the biggest bang for their fertiliser buck, and technology could well provide some of the answers.

With fertiliser costing a lot more today than a year ago, the skill will be in controlling what nutrients are applied to different areas within a farm, rather than just adding fertiliser in a uniform rate across the whole farm.

‘To get the most out of their spend, farmers will have to be more precise in their application of fertilisers, and they can look forward to new technology providing this capability,’ says Aaron Stafford, Technical Consultant at Ballance Agri-Nutrients.

He says advancements in GPS (global positioning system) technology will lead to the creation of more accurate farm maps and spatial fertiliser recommendations showing precise areas and the optimum nutrient requirements.

‘This will enable a greater detail in the analysis, identifying the different ratios of specific fertiliser products that should be applied within the farm system. These maps will be used to make fertiliser recommendations in detail for individual areas within paddocks, and show areas to be avoided, such as near streams and stock camps.’

He says spreaders fitted with GPS can then use the geographic references in map-based fertiliser recommendations to tell when to open or close the spreader flow rate controller, and also to adjust bout width automatically to minimise variability.

‘Already in the United States there are spreader trucks that have multiple bins, so the precise nutrients can be mixed and applied on the go.’

The driver focuses on the driving, leaving the GPS to decide exactly what product mix is dispersed over each block of land, removing the risk of human error completely.

‘We could move to the point where areas of the paddock that don’t need fertiliser are automatically bypassed. Even if the driver goes there, no product will be applied.’

Aaron says the success of such a system for the fertiliser industry and for agriculture would depend on the quality of the granules being applied.

‘Granularity would become more important. Work would focus on removing the dust factor to increase the accuracy of placement.’

He says all farmers are looking for nutrient efficiency gains, which will lead to more special mixes.

Continued...

'There will be a move away from standard line products. We are already seeing this trend as a result of the nutrient budgets we prepare for our customers.'

The future will also demand more varied farm design, with a greater emphasis on forage system design for summer and winter crops.

'In 10 years time there will be different grass species as well – this is all part of the fertiliser discussion.'

'Nitrification inhibitors could be a key tool available to farmers to help reduce nitrate leaching. There is the likelihood that use of nitrogen and phosphorus will be more regulated in coming years, with farmers having to consider farm management options to influence potential nutrient losses.'

'This is possible through greater efficiency, and by implementing options that mitigate any potential losses.'

Aaron says change is definitely on the way, and will be unavoidable.

'The emphasis must be on managing nutrients and controlling nutrient loss from your farm – rather than just applying fertiliser.'