

## Considering New Fertilisers

There seems to have been an increase in the amount of farmers diverging from their regular nutrient policies and trying new fertilisers and soil conditioners. This is a pretty common thing to do in times of pressures. But it is still important to know that you are still getting the best bangs for your nutrient bucks.

There is a huge raft of products, theories and options available, and everyone makes choices for different reasons. In challenging times when money is short, questioning the biggest expense for your farm business is a good thing. But when you consider your options there are some key questions you should be asking, rather than selecting a product solely on price and the smooth sales talk behind it.

The first question you need to ask is if times were buoyant, would you be applying an alternative product over your preferred fertiliser policy? If the answer is no, then you should stick to your preferred product but only for part of the farm. To get the best bangs for your bucks you need to rank the various areas of your farm according to pasture and livestock production. Doing this will give you the priority areas where you should start with your fertiliser budget and work your way down the priority area list until the budget runs out.

If you still have the new product or fertiliser policy in mind then it is imperative that you consider the base information of the product first.

We are farming on a legume based pasture systems and these rely on key nutrients levels to maintain current levels of production. In order to maintain or maximise pasture production and livestock performance you need to maintain or optimise the base values of P, K, S and trace elements in the soil. There have been years of data to back this up. Consequently if you are planning to apply turtle dust as your fertiliser and it doesn't have the nutrients in it to at least maintain your base nutrient levels then you should expect your base nutrient levels to be "mined" and production to come back.

Every farm should be soil testing nutrient levels and herbage to monitor the nutrient trends. Testing should be done on the same site in similar conditions each year, and should be representative of each management block on the farm it represents. This will reduce the variability between tests. This base information is essential for making strategic fertiliser decisions. It is important to maintain the ideal environment for the plant so as to achieve maximum production.

The variety of fertiliser products available is huge. All products should be assessed on their merits. It is important to know the key nutrient levels in any mix and whether it will provide sufficient nutrient levels to achieve maximum pasture production conditions. You must always compare apples with apples; look at a couple of products and compare the dollar value per kg of nutrient that you are getting on the ground. This is essential and so easy to do. If your product costs \$480 per tonne and it contains 10% phosphate (100 kg of P per one tonne of fertiliser), then the cost of P is \$4.80 per kg. If another product costs \$350 per tonne and contains 7% P, then the cost of P is \$5.00 per kg. The more expensive product in this case is better value. The cost of other nutrients need to be considered too.

There are a number of products currently on the market promoted for soil conditioners. To know whether these will have benefits you need some base information on soil health. Visual Soil Assessment (VSA) would be one of the best monitoring tools available to give you your soil health status. It provides a scorecard of the earthworm population, soil structure and drainage, surface relief and general soil health. By assessing identified areas on the property that are representative for that management area you start to see the trends of soil health. VSA also considers pasture as part of the assessment.

VSA is as simple as picking a site, digging a hole and running through a short score sheet. Each site will end up with an overall ranking which then can be compared with other areas of the property. This process needs to be undertaken at the same time each year over a couple of different management areas. The results will indicate the impact of the current farm management practices and policies on the soil and pasture.

When undertaking soil testing always ensure that it is calibrated for NZ soils and when assessing products always ask for hard data about how much nutrients the product will supply and do not accept anecdotal stories of support. That would be the same as buying a used car without even starting it.

In economically hard times we are all tempted to explore other avenues. Your fertiliser policy is no exception. If you are tempted to do this, ensure you have all the facts about the product, don't accept anecdotal stories, know your base soil information, and ensure that the product will provide the nutrients so as to maintain production. Also it is important to calculate the cost of the nutrients in products to ensure you are getting the best bangs for your bucks. And finally, look after the areas of your farm that have the highest levels of production and stock do well first.