- Crop canopy management; and,
- Precision farming.

When growing higher yielding Bollgard crops, there is a greater need for soil testing and accurate assessment of the soil's total nutrient status.

Nutrient removal will correlate with lint yield, as shown for nitrogen, potassium and zinc in Figure 1.

The importance of phosphorus nutrition in modern high yielding crops, particularly where soil phosphorus fertility may be low and phosphorus removal has not been balanced with fertiliser, is shown in Table 1.

Growers and their advisers have recently questioned whether cotton can extract all of its phosphorus and potassium requirements from the customary banded annual application of these nutrients.

Considering the effective rooting depth of irrigated cotton, the crop may be extracting significant levels of these nutrients, particularly potassium, from other pools in the soil.

Incitec Pivot will continue to promote sustainable use of our soils with research into these and other related areas.

We are all, unfortunately, very much aware of the prevailing dry seasons, lack of organic matter in the soil and non-existent crop rotations.

These three factors can have a large and direct effect on Vesicular Arbuscular Mycorrhizae (VAM) levels.

Cotton is heavily dependent on adequate VAM levels for efficient uptake of soil phosphorus and zinc.

With Bollgard crops especially vulnerable to low VAM levels, early stress and poor seedling vigour could allow other seedling diseases to enter the cotton crop.

There is little quantitative data available to date that proves a relationship between soil VAM levels and crop responses.

But Incitec Pivot has been investigating methods of soil testing for VAM levels and other soil microbes, specifically to answer these questions.

In the meantime, growers are advised to use a starter fertiliser with phosphorus and zinc, such as Granulock SuPreme Z fertiliser, in a band close to the plant line to help ensure crops have access to key nutrients.

Don't risk a re-plant

With the increasing cost of inputs such as fuel and fertiliser, the cost of a re-plant caused by a poor germination strike or hard setting soil is too costly to think about.

To maximise germination and plant establishment this season, the recommended solution is Gyp-Flo (liquid gypsum) to prevent a re-plant.

Gyp-Flo provides you with an easy application method with no extra pass needed. Applied as a 20 per cent band (10 litres per hectare) at planting, it will save you time and money. The treatment of 10 litres per hectare will cost approx $35 per hectare, a small price for enhanced maximum germination and plant establishment.

Gyp-Flo is used Australia-wide on many different crops to enhance seed germination and improve calcium around the root zone for enhancing soil quality and assisting the new root system to establish a structure.

Gyp-Flo is available from all rural outlets.

For further technical information please contact Glen McDonald from Ultimate Agri-Products on 0427 059 595 or toll free 1800 003 244.