FERTFACTS

NUTRIENT ADVANTAGE
FACT SHEET

- **Longest running association with soil analysis in Australia (over 40 years experience serving the nation's farmers);**
- **ASPAC Certified(Australasian Soil and Plant Analysis Council);**
- **NATA Accredited (National Association for Testing Authorities) laboratory, performing tests researched and evaluated under Australian conditions**
- **FERTCARE Accredited**

Incitec Pivot Limited's involvement in soil, plant tissue and water analysis dates back to 1963 when AFL, one of company's antecedents, established a laboratory at Chester Hill, Sydney. Since that time, the company has operated laboratories continuously at Port Kembla, Brisbane and now most recently at Werribee on the outskirts of Melbourne.

A wealth of experience has been gained in laboratory procedures and the interpretation of laboratory results, from company research through our dedicated agronomy team and close liaison with research and extension staff in Universities and State Departments of Agriculture or Primary Industry.

Customers and advisors are trained in the use of the service, and are provided with interpretative tools and programs to assist them in making fertiliser recommendations such as Nutrient Advantage Advice.

Soil and plant tissue analyses are used to:

- Improve farm profitability through efficient management of nutrients and the avoidance of fertiliser 'over application'
- Determine factors that may be limiting productivity
- Develop nutrient plans to help improve productivity levels
- Provide improved decision support to better manage farm inputs
- Establish 'best management practice' for fertiliser application to suit specific circumstances & needs
- Meet specific government legislation regarding soil nutrient

Water tests are used to check the suitability of water for irrigation and consumption by farm animals. Important assessments are those for salinity (which affects plants and animals) and sodicity (effect on soil structure).

Nowadays, many food processors require that all steps in the production chain be quality assured.

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There is also an expectation that fertilisers only be used where required, at appropriate rates, to minimise any off-site (environmental) effects of fertiliser use, eg. On water quality.

Therefore, farmers are encouraged to use predictive tools such as soil, plant tissue and water analysis as part of their management programs.

Technical information on soil, plant tissue and water sampling, plant nutrients and fertiliser products is available through the Incitec Pivot Fertiliser, and its extensive dealer network.

- www.incitecpivot.com.au
- Nutrient Advantage Customer Support Freecall 1800 803 453

QUALITY FERTILISER PROGRAMS

Fertilisers can enhance crop productivity and quality. Too much, though, can be detrimental. Excess nutrients, if lost from the fields to which they are applied, may also harm the environment. It is therefore important that fertilisers are used wisely, and only where they are needed.

IMPORTANT CONSIDERATIONS	WHERE TO GET INFORMATION
Agronomic Advice: Obtain specialist advice on crops, rotations and cultural practices.	State Departments of Agriculture or Primary Industry, BSES, Consultants, Incitec Pivot Fertiliser dealers
Analytical Services: Use soil, plant tissue and water tests to check nutrient needs, and fine-tune your fertiliser programs.	Talk to your Incitec Pivot Fertiliser dealer about "Nutrient Advantage". If you are taking your own samples, ask for the Incitec Pivot Sampling Guides.
Heavy Metals in Fertilisers: Prescribed limits are set in state fertiliser legislation. These vary somewhat. Typical figures are: <u>Cadmium (Cd)</u> Fertilisers containing >2% P 300 mg Cd/kg NPK fertilisers 10 mg/kg Cd Trace elements 50 mg/kg Cd <u>Lead (Pb)</u> NPK fertilisers 100 mg/kg Pb Zinc enriched NPK fertilisers 500 mg/kg Pb Foliar-applied trace elements 500 mg/kg Pb Soil-applied trace elements 2 000 mg/kg Pb <u>Mercury (Hg)</u> All fertilisers 5 mg/kg Hg	Several Australian States, e.g. Victoria and NSW, require that heavy metal concentrations be declared on the product label. Incitec Pivot products comply with this requirement. If such information is not available and is required for products sourced from other companies, request it from your supplier. An Agritopic on "Heavy Metals in Fertilisers and Agriculture" is available from Incitec Pivot if required.

Cadmium in Farm Produce: Violations of the Maximum Permitted Concentration (MPC) occasionally occur. This is most likely in leaf and root vegetables, e.g. lettuce, spinach and carrots, tuber crops, e.g. potatoes, and peanuts (particularly on sandy soils). For vegetables, and in other risk situations, look for products with less than 150 mg Cd/kg P. If phosphorus is applied repeatedly at high rates, it is desirable to use products with <100 mg Cd/kg P.	Information on the cadmium content of Incitec Pivot products is contained on the label or bag tag. High analysis phosphorus fertilisers contain less than 100 mg Cd/kg P. SuPerfect, primarily used for pasture topdressing, has a specification of 300 mg Cd/kg P (max). Low Cad Super contains less than 100 mg Cd/kg P. Note. Incitec Pivot Phosphogypsum (ex Brisbane only) is high in cadmium (about 10 mg/kg Cd). Confine its use to alkaline soils used for grain and cotton, and soils used exclusively for sugarcane in the Burdekin Irrigation Area. Use naturally-occurring gypsum on acid soils, where vegetables or peanuts are to be grown, and in other risk situations.
Food Safety: By far the most common and serious problem is microbial contamination, which can result in acute food poisoning. Mineral fertilisers do not pose a risk, but fresh and unprocessed animal manures may.	Take care when using unprocessed organic fertilisers. Do not apply to established vegetable crops. Seek advice on appropriate application methods and times from your state Department of Agriculture or Primary Industry, and Food Processor if crops are grown under contract.
CRAFT: Fertiliser use efficiency and profits can be maximised and nutrient loss minimised by paying attention to the following: **C**hoice of products **R**ates of application **A**pplication methods and placement **F**requency of application **T**iming of application.	Talk with your local Extension Officer, Adviser or Incitec Pivot Fertiliser dealer to develop appropriate fertiliser programs for your farm. Observe relevant Codes of Practice.

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