

APPLICATION

Fertiliser Washings can be sprayed onto the soil or applied with irrigation water (fertigation). Undiluted Washings should not be used as a foliar spray, e.g. in horticultural crops, as it may burn plant foliage, e.g. leaves and fruit, with which it comes in contact.

If undiluted Washings are used in row crops, e.g. sugarcane, maize, vegetables, the spray should be directed away from the foliage and onto bare soil adjacent to the crop row. In sugarcane, Washings can be applied in the same way as Dunder. If used in pasture or winter cereal crops, where leaf contact is unavoidable, the Washings should be applied through coarse streaming nozzles, so that as much as possible runs off the foliage onto the soil, and as little as possible remains on the plant leaves.

Foliar burn will not occur where the Washings are diluted and applied with irrigation water (fertigation), as once this is done, the overall nutrient concentration is very low.

Note: Fertiliser Washings typically contains some suspended sediment, which may block filters and nozzles. Washings are not recommended for use through fine nozzles, e.g. boom sprays used to apply foliar fertilisers and crop protection products, or micro-fine irrigation systems, e.g. drip and trickle irrigation systems, or under-tree sprinklers.

RATES

Washings can be substituted for other products in fertiliser programs. The overall nutrient rates should not change. A Nutrient Budget should be maintained of all fertiliser inputs, to ensure appropriate rates of nutrients are applied.

The rates at which individual batches of Washings are applied will need to be adjusted, as their concentration will vary. Nutrient application rates can be determined by the either of the following equations:

$$\text{Nutrient Rate (kg/ha)} = \frac{\text{Washings Rate (litres/hectare)} \times \text{Nutrient Concentration (\% w/v)}}{100}$$

or

$$\text{Nutrient Rate (kg/ha)} = \frac{\text{Washings Rate (litres/hectare)} \times \text{Nutrient Concentration (g/L)}}{1000}$$

To calculate the desired application rate for Washings, to apply a nominated amount of nutrient, use the following equations:

$$\text{Washings Rate (L/ha)} = \frac{\text{Required Nutrient Rate (kg/ha)} \times 100}{\text{Nutrient Concentration (\% w/v)}}$$

or

$$\text{Washings Rate (L/ha)} = \frac{\text{Required Nutrient Rate (kg/ha)} \times 1000}{\text{Nutrient Concentration (g/L)}}$$

It is important that fertiliser rates are matched as closely as possible with nutrient requirements. Over-applying nutrients can be wasteful, adversely affect crop and pasture growth and animal health, and impact on the environment if excess nutrients are lost from the fields to which they are applied. Under-applying nutrients can result in disappointing yields, and reduced quality and marketability of farm produce.

As a rule, if Washings are used as the sole source of nutrients, apply them at a rate that supplies the required amount of nitrogen. Check that phosphorus and potassium rates are close to that required.

If the phosphorus and/or potassium rates are too low, it may be necessary to apply these nutrients in another form, to make up the balance. If the phosphorus and/or potassium rates are too high, adjust the application rate for the Washings downwards, e.g. to apply the correct rate of phosphorus (P), and apply the shortfall in nitrogen (and potassium if necessary) as another product, e.g. additional nitrogen can be applied as Urea or UAN solution, additional K as Muriate of Potash.

The table below shows indicative rates at which nitrogen (N), phosphorus (P) and potassium (K) are applied in various situations.

Soil testing may be of assistance in determining appropriate nutrient application rates, e.g. for phosphorus (P) and potassium (K). There is no suitable soil test to determine nitrogen requirements in pasture.

Table 1: Typical nutrient application rates.

CROP	ANNUAL APPLICATION RATES			COMMENTS
	kg/ha N	kg/ha P	kg/ha K	
Ratoon Sugarcane	120 – 200	15 – 25	50 – 120	Rain grown and supplementary irrigated crops.
	200 – 250	20 – 25	50 – 120	Fully irrigated crops, e.g. Burdekin and Mareeba.
Rain grown grass pasture	180	15 – 30	25 – 100	Apply nitrogen on three occasions each year, at 60 kg/ha N.
Irrigated ryegrass	300 – 400	30 – 60	50 – 250	Apply nitrogen after each grazing, e.g. at three-week intervals, at 40 – 50 kg/ha N per application.

CARE OF EQUIPMENT

Fertilisers can be corrosive to metals. Flush application and fertigation equipment after use. Where applied through fixed irrigation lines, discontinue use towards the end of the shift, to flush fertiliser from the lines and off crop foliage. This minimises corrosion and the risk of leaf and fruit burn.

SAFETY DIRECTIONS

Refer to the Safety Data Sheet (SDS) for more detailed safety advice. Before use, read the Product Label and the SDS. Use safe work practices and avoid contact with the eyes and skin. Avoid



ingestion and inhaling dust. Protective clothing, eyewear and dust masks should always be used when dealing with this product. Observe good personal hygiene, including washing hands after use. Avoid loss of fertiliser to waterways.

WARNING

This document contains information of a general nature. Before using fertiliser seek independent agronomic advice. Fertiliser programs may need to be varied depending on the plants being grown, climatic and soil conditions, application methods, irrigation, agricultural and livestock management practices, the soil's fertility, and cultural practices. ('Unforeseen Elements')

Fertiliser may burn and/or damage crop roots or foliage. Foliar burn to the leaves, fruit or other plant parts is most likely to occur when fertilisers are foliar applied at high concentrations and/or on a regular basis, different products are mixed and sprayed together at cumulatively high rates, the water is of poor quality, or the spray is applied under hot dry conditions, e.g. in the heat of the day.

Fertiliser and supplements may affect animal health. Seek independent advice before using any supplements in livestock rations.

DISCLAIMER

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