

Yara Africa Fertilizer (Pty) Ltd

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Operations in
more than
50
countries



Sales to
more than
150
countries

Yara's market presence includes a global network of sales offices in more than 50 countries and sale to more than 150. The company has a strong production and marketing base in Europe and has greatly extended its presence in North and South America, not least taking a strong position in Brazil, as well as in Australia, while expanding in Africa and Asia.

Market Knowledge

Yara delivers a wide range of solutions for the world's farmers and industrial users, leveraging its experience and knowledge to tailor solutions to local needs. With regard to Agricultural Solutions, Yara offers the market's most complete portfolio of mineral fertilizers and solutions for sustainable agriculture – covering all necessary nutrients for most crops.

Creating Impact

Yara commits to a sustainable future. Creating impact is our blueprint to create business value in the way we respond to human challenges. Yara creates value by delivering profitable, sustainable growth benefitting customers and shareholders – as well as society at large. By creating value Yara is positioned to create impact, to make a difference. Successful alignment of the company's current and future core business with global challenges will strengthen the company's position and develop a sustainable competitive edge. Yara creates impact by engaging in three focal areas where it is able to make a profound contribution: food security, resource management, and environmental issues. The three areas are intrinsically linked, and Yara is uniquely positioned to develop viable business solutions that address related global challenges.



Knowledge grows



Quality Onions



Quality Onions



Timing is everything

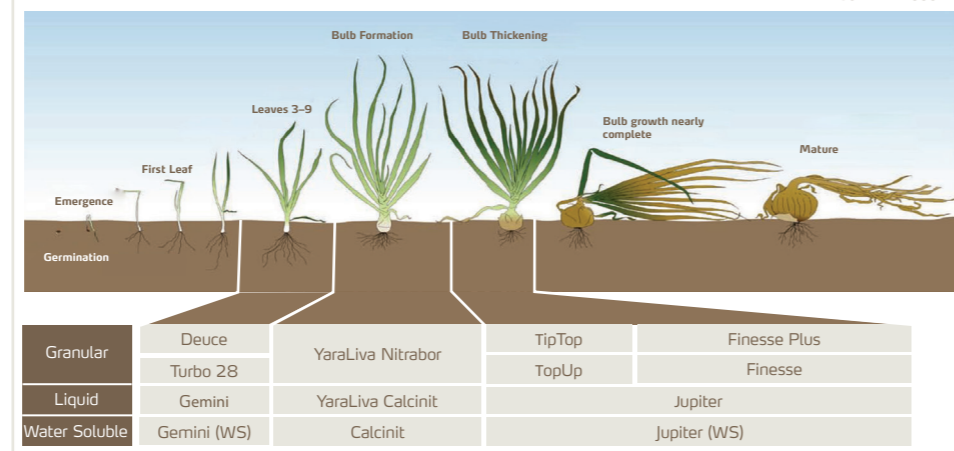
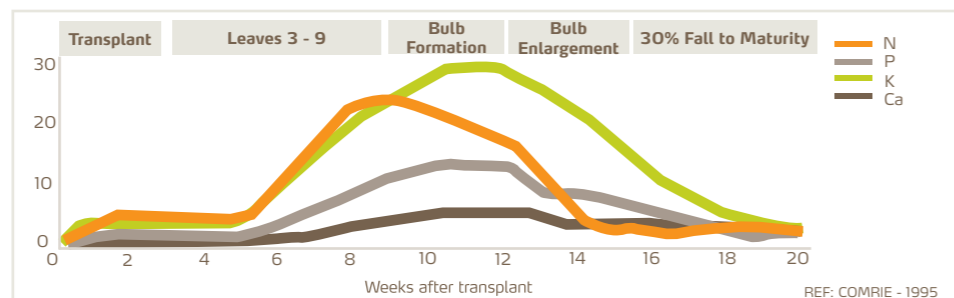
Timing is everything Yara works closely with researchers and Farmers all over the world gaining in valuable experience on how best to use our fertilizers.

The attainable yield of a crop can be reached if the limiting factors like water; nutrients and plant material are managed properly. Yara strive to provide a balanced nutritional recommendation for both macro- and trace elements to optimize plant growth.

We know that rate and timing of nutrient application - taking in to account nutrient availability from the soil, crop residues and manures are essential aspects to ensure growth and that crop quality is not compromised.

The YaraVita™ range of foliar fertilizers is highly formulated products designed with the specific needs of the crop in mind. Bortrac 150 is an ideal source of boron, complimented by magnesium, manganese, copper and zinc applications through Magtrac, Mancozin and Zintrac 700. Seniphos has the additional benefit of providing phosphorus, and has been shown to provide both yield and quality benefits in the onion crop.

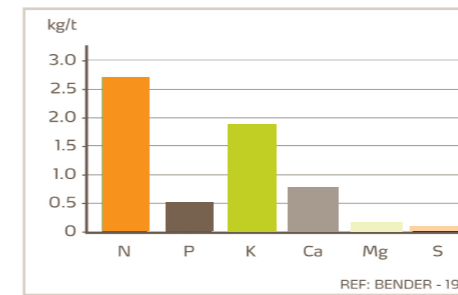
Nutrient Application Timing Chart for Onions



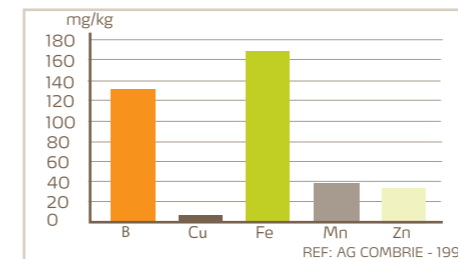
YaraVita™ foliar sprays play an important roll in nutrition

	Crop: 15 cm tall	Bulb filling (Swelling)	
Foliar YaraVita™	Bortrac 150	Seniphos	This is a complete timing chart, showing all possible sprays. For a custom made foliar spray program, please consult your local agronomist.
	Mancozin		
	Zintrac 700		
	Magtrac 300		
	Chelate 1089		

Nutrients



Macronutrient removal in bulbs



Micronutrient removal in bulbs

Nitrogen (N) is needed in large quantities to maximize growth and yield. Peak need is during late leaf production and main uptake is earlier than other elements. Smaller applications, often, during early growth are needed to maximize uptake and minimize potential soil losses.

Phosphate (P) is required early on in the plant's development to ensure good root growth and to boost establishment.

Potassium (K) is also needed in large quantities. Crop removal is around 2kg/t in bulb onions. Base applications of potassium are usually followed by regular applications throughout the season. Most of the potassium taken up by the plant is utilized by the leaf.

Calcium (Ca) is needed at around 0.8kg/t. Peak requirements is at bulb formation and early enlargement. While it is particularly important for leaf growth, the relatively small amounts that are found in the bulb maintain bulb density and crop storage. A steady supply of calcium is usually applied during the season.



Magnesium (Mg): Only small levels of magnesium (Mg) are utilized by the crop. Peak uptake is relatively late.

Sulfur (S) is particularly important in developing the taste and pungency of onions. However, removal in dry bulb onions is low at around 10% of that of the calcium. Peak uptake is during the later stages of bulb maturity. Earlier harvesting or restricting sulphur supply on low S supply soils will lead to production of sweeter onions.

While much lower levels of micronutrients are needed to satisfy yield and quality onion crop production, the correct balance of these trace elements is essential. All micronutrients play a role in seedling and leaf growth. Without good leaf productivity, growth slows and yield suffers.

The key micronutrients needed in greatest quantities are boron, and iron. These have an influence on yield and quality. Zinc also plays a role in seed germination.

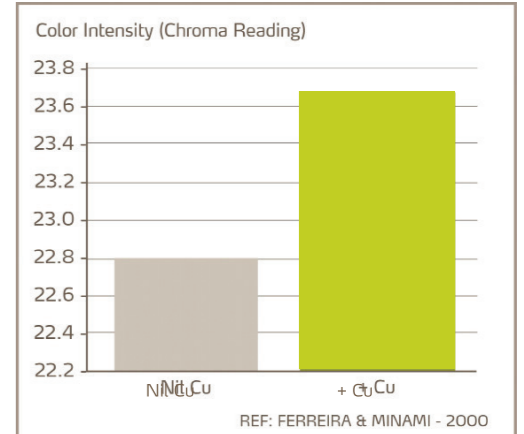
Copper (Cu) improve marketability

Copper has a key role to play in lignin formation. It is also linked to chlorophyll performance.

Adequate supplies of copper are important for bulb skin and onion scale development, as a result of the element's role in lignin production. Trials show that copper can improve crop marketability by enhancing skin colour..

Deficiency Symptoms

Tips of young leaves turn white and twist into a corkscrew or bend at right angles. Bulbs have thin, yellow outer scales, are less solid, and are often earlier maturing.



Copper and skin colour