



InBio TRACE

InBio TRACE is a high analysis suspension of Manganese, Zinc, Iron, Magnesium and Copper blended with kelp extracts. Designed to provide an early energy boost for early vigour and improved plant health.

PRODUCT SPECS

Active Agents	Manganese, Zinc, Iron, Copper and Magnesium with kelp extracts
Agent Type	Liquid Fertiliser
Specific Gravity	~1.65
pH	10 - 11
Colour	Light pink

PRODUCT USES

- › Helps early stage plant development.
- › Treat deficiencies in Calcium, Zinc, Nitrogen, Manganese, Magnesium and Boron

DESCRIPTION

InBio TRACE is a liquid suspension of technical grade Manganese, Zinc, Iron, Copper and Magnesium with kelp which provides plants with the ideal mix of nutrients for healthy plant development. Each of the minerals and kelp extract play an important role in plant health.

ROLE OF KELP

Kelp is a seaweed that can boost horticultural crop plants in many ways. It contains natural plant hormones that stimulate cell division, growth, bud and flower formation. It also improves soil quality by breaking down organic matter. Kelp can increase germination, reduce transplant shock, and enhance plant vigour. Kelp can also improve the soil quality, nutrient uptake, photosynthesis, and stress resistance of plants.

ROLE OF IRON

Iron plays an important role in the formation of chlorophyll. It takes part in photosynthesis and in respiration for the release of energy.

Deficiency Symptoms

- › Chlorosis particularly in younger leaves, the mature leaves remain unaffected.
- › Inhibits chloroplast formation.
- › Stalks remain short and slender.
- › Interveinal white chlorosis.
- › May develop necrosis also.

ROLE OF MANGANESE

Manganese is essential as an enzyme activator which helps with nitrate assimilation. It is also primarily involved in photosynthesis and chlorophyll production. Manganese influences auxin levels in plants and is required for maximum activity of many enzyme reactions found in the citric acid cycle.

Deficiency Symptoms

- › Leaf speckling
- › Light green blotches between main veins
- › Dark green borders around the main veins
- › Speckling on leaves and in oats known as 'grey speck'
- › Interveinal chlorotic areas become pale green or dull yellow
- › Susceptibility to root diseases



Iron deficiency



Manganese deficiency

BENEFITS OF USING InBio TRACE

- › Formulated for maximum nutritional benefit with a concentrated balance of minerals.
- › Easy to use free-flowing formulation compatible with a wide range of agricultural products including most seed dressing.
- › Accelerated seedling development due to essential nutrient availability from germination. It also assists nitrate assimilation.
- › Improves nutrient uptake by enhancing root development.

ANALYSIS

Element	w/v %	Element	w/v %
Manganese (Mn)	24	Iron (Fe)	0.5
Zinc (Zn)	20	Boron (B)	0.15
Magnesium (Mg)	4.0	Molybdenum (Mo)	0.01
Copper (Cu)	3.5	Cobalt (Co)	0.01

STORAGE

Storage temp.	5-30°C
Conditions	Dark and dry
Max storage time	36 months

Do not freeze. Store upright in original container. Refer to MSDS.

PACKAGING

Pack Size	20L
	1L

COMPATIBILITY

InBio TRACE is compatible with a wide range of agricultural products. If unsure of tank mixes always conduct a jar test and test spray a small area of the target crop. For the latest results of compatibility tests please contact your retailer.



If there are any questions about the product, please contact a Bioline AgroSciences Africa specialist in your area. Bioline AgroSciences Africa Integrated Pest Management Ltd is a distributor of **InBio TRACE** and other **InBio** plant nutrition products.

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APPLICATION CHART - FOLIAR, FERTIGATION & AERIAL APPLICATION

Crop	Rate/ha	Min Dilution	Comments
Wheat, Barley, Oats, Triticale, Cotton, Legumes, Maize and Rice	Foliar: 0.3-1.0L Fertigation: 0.5-1.0L	1:30 1:1	Ideal time for application is at the 3 - 4 leaf stage but may also be applied later if required.
Potato	3.0L	1:66	Apply in a minimum 200L/ha with normal insecticide and fungicide seed piece sprays.
Vines and other crops	2.0-4.0L	1:50	Apply 1 - 2 sprays prior to flowering.
Truffles	2.0-4.0L	1:50	Apply through irrigation or spray onto ground as needed once or twice per annum, or as directed by your agronomist.
Sugar Cane	1.0-2.0L	1:50	Apply as advised by your Agronomist.

APPLICATION CHART - SEED DRESSING

Crop	ml/100kg of seed	Min Dilution	Comments
BROAD ACRE Wheat, Barley, Oats, Triticale, Cotton	400-600	This product does not need dilution, however if you wish to add water adjust volume to suit application equipment, seed moisture percentage and the current ambient temperature. DO NOT exceed total application volume of 6L/t when treating cereal grain.	Where InBio TRACE is applied without dilution uneven coverage may occur. Where lower rates are used follow up with brix or leaf tests after emergence are advised to determine the need for foliar application. InBio TRACE is NOT compatible with inoculant products.
CANOLA	2000		
GRAIN LEGUMES	400-600		
MAIZE, RICE & SORGHUM	500-800		
POTATO Seed Pieces	3000	1:66	Apply in a minimum 200L/ha with normal insecticide and fungicide seed piece sprays.

DILUTION - A dilution of 1:30 equals 1 part product - 30 parts water.

NOTE:

- › All suggested application rates are for typical Australian conditions, and should be used as guidelines only. Individual conditions; such as climate, water quantity, soil type and application practices may differ, necessitating corrections to ensure optimum results. Increase minimum dilution rate by 1:50 – 1:100 in hot weather.
- › Ideally brix or leaf tests should be conducted on a regular basis to determine plant nutrient levels at each growth stage. It is highly recommended to conduct soil tests at least once a year.
- › Apply using a minimum of at least the labelled dilution rate to avoid potential leaf burn. Avoid application under extreme weather conditions; temperature over 28°C, high humidity, frost or rain apply at a minimum of 1:100 dilution.
- › It is advisable when applying for the first time or in conjunction with other products, to spray an initial small test area for observation before general application.
- › For best results apply with Nitrogen.

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