



Reg No K6775 \* Act 36 of 1947

**BioKelp** is a biological farming product and is an AgriLibrium core **Plant Stress Management<sup>®</sup>** product. It has **plant growth regulating** (natural kelp extract) and natural pest and disease tolerance (phyto-alexin or **plant immune system**) effects.

**Composition:**

Nitrogen (N).....	40 g/kg
Phosphorous (P).....	23 g/kg
Potassium (K).....	26 g/kg
Magnesium (Mg).....	0.4 g/kg
Zinc (Zn).....	860 mg/kg
Iron (Fe).....	1490 mg/kg
Manganese (Mn).....	730 mg/kg
Copper (Cu).....	600 mg/kg
Boron (B).....	680 mg/kg
Molybdenum (Mo).....	160 mg/kg

*An amino and Fulvic acid chelated product, a slight brown residue might be present that will dissipate after shaking of the container. Shake well before use.*

**Product Properties:**

S.G:	1.14 ± 0.1
pH:	4.0 ± 0.1
Appearance:	Light brown

**Plant Stress Management<sup>™</sup> Product**

*A Biological EquilibriUM Farming Product*



## Characteristics:

**BioKelp** supports the biochemical anti-oxidant system present in every living cell and organelle, protecting the chlorophyll and mitochondria in plant cells to ensure optimal photosynthetic activity and production.

**BioKelp** contains metabolic elicitor that improves metabolic activity and specific amino acids for chelating ions that enhances foliar uptake into and mobility of nutrients within the plant.

**BioKelp** is a growth stimulation and cell membrane protection product that should be used simultaneously with **ByoPhos (fuel for energy)** and **FulMax** as wetter, spreader, re-wetter and uptake enhancers to ensure an effective **Plant Stress Management**® program.

The **BioKelp** formulation is based on Plant Physiological principles and a wide range of trials and proven scientific results (see: Malan et al, Plant Science 69 (1990)).

Foliar uptake of **BioKelp** is very efficient due to the specific selected amino acid chelating molecules.

**BioKelp** is highly effective in both the young active growing stages as well as the reproductive growth phases of the plant.

## Directions for use: Use only as directed

**Spray solution water must be buffered between pH 4.5 and 5.5.**

Application concentration should never be lower than **0.75% (750 ml per 100l water)** for maintenance applications up to a maximum spray concentration of **3% for rectification of deficiency problems (3l per 100l water)**.

**BioKelp** is compatible with most agrochemical products but **it is recommended that a compatibility drinking glass test be done before mixing with other chemicals.**

Use **FulMax** (0.2%, 200ml/100l water) in the spray mixture as wetter/spreader/re-wetter to ensure efficient uptake of the nutrients through the leaf surface.

**BioKelp** should be applied early in the morning, late in the afternoon or during evening.

Do not spray on plants that are wilted – spray during early morning or late afternoon.

**BioKelp** should be applied in a tank mix with **ByoPhos** (1:1 ratio).

**Optimal application dosage concentration based on dosage response results.**

Total tank concentration should never be lower than 0.75% (750mℓ/100ℓ) and preferably be 1 – 1.5% (1 – 1.5ℓ/100ℓ).

**General Recommendation:**

Crop	Max rate/ha	Rate /100 ℓ water	Remarks
<b>Pome Fruit:</b> Apples Pears	<b>BioKelp</b> can be applied at a 1:1 ratio with <b>ByoPhos</b> .  Add 100 - 200 mℓ/100ℓ <b>FulMax</b> to improve uptake and efficiency.	Apply 375 - 750mℓ <b>BioKelp</b> plus 375 - 750mℓ <b>ByoPhos</b> per 100ℓ tank solution.	First application 2 weeks after first flush with 10 to 21 day intervals up to end of harvest. <b>50% wetting sufficient.</b>
<b>Stone fruit:</b> Apricots, Peaches, Plums			
<b>Sub-Tropical Fruit:</b> Mango, Avocado, Macadamia, Pecan, Bananas, Litchis			
<b>Citrus:</b>			

<b>Grapes:</b> Table grapes Wine grapes	<b>BioKelp</b> can be applied at a 1:1 ratio with <b>ByoPhos</b> .  Add 100 - 200 mℓ/100ℓ <b>FulMax</b> to improve uptake and efficiency.	Apply 375 - 750mℓ <b>BioKelp</b> plus 375 - 750mℓ <b>ByoPhos</b> per 100ℓ tank solution.	First application between flowering and fruit set. Last application no later than veraison for tablegrapes and during the lag phase (berry is pea size) for wine grapes.
<b>Root Vegetable:</b> Potatoes Sweet Potato	<b>BioKelp</b> can be applied at a 1:1 ratio with <b>ByoPhos</b> .  Add 100 - 200 mℓ/100ℓ <b>FulMax</b> to improve uptake and efficiency.	Apply 500mℓ <b>BioKelp</b> plus 500mℓ <b>ByoPhos</b> per 100ℓ tank solution	First application 2-3 weeks after germination. Follow up with 14 day intervals.
<b>Other Vegetables:</b> Tomatoes, Peppers			
<b>Grain:</b> Wheat Maize Canola Lucerne Oats Beans Soybeans	<b>BioKelp</b> can be applied with <b>ByoPhos</b> and <b>CMZ</b> .  Add 100 - 200 mℓ/100ℓ <b>FulMax</b> to improve uptake and efficiency.	Apply 375mℓ <b>BioKelp</b> plus 375mℓ <b>ByoPhos</b> per 100ℓ tank solution	First application 2-3 weeks after germination (4-5 leaf stage). Follow up application 4 – 6 weeks later flag leaf stage for wheat and stalk borer stage for maize, 8-10 leaf stage for other crops).

✚ Due to the variation of soil and soil types from area to area, a full recommendation will only be possible once a **soil analysis and 1:2 water extract analysis** has been done.

✚ Recommendations are also based on requirements for different crop types.

Contact your **AgriLibrium** representative to obtain a crop specific Plant Stress Management™ recommendation.

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