

# Smart Select Root Booster

Smart Select Root Booster is derived from **Arcadian Kelp (Ascophyllum nodosum)** and processed with a unique method to ensure beneficial hormones are extracted to be readily plant available. The unique extraction method also ensures the active carbon within kelp is bio available as a bio-stimulant. Root Booster is compatible with most ag chemicals and liquid fertilisers.

- Root Booster is a loaded product with an SG of over 1.08, indicating it has a high level of kelp extract included. Most kelps contain an SG of 1.03-1.05.
- Kelp contains plant hormones auxins, cytokinins, ethylene, gibberellins, abscisic acid and more. Adding to the hormonal benefits that seaweed extracts provide are ammonium molecules (betaine and proline) that will offer a buffer against osmotic changes. These molecules have been reported to be required in times of stress. Other benefits of seaweed extracts include alginates that act as a bio stimulant and improve root growth.
- Auxins in seaweed extracts play a key role in root development and root flushes by playing a role in the production of indole acetic acid (IAA) production. IAA may also be known in common terms as the “rooting hormone”. Increasing auxin production will result in increase cytokinin production.
- Cytokinins and Gibberellins both offer hormonal benefits with the application of Gibberellins increasing internode length, leaf numbers and overall plant height.
- We also know that cytokinin's will reduce senescence. Cytokinins will reduce the breaking down of chlorophyll and photosynthetic proteins. Plants producing cytokinin synthesizing enzymes also have reduced senescence rates and play a key role in plant responses to biotic and abiotic stress.
- Cytokinins act in synergy with salicylic acid to improve the plants defence mechanisms. Cytokinin signaling is prominent around plant infection zones.
- Cytokinin's will also reduce the development of hormone ethylene. When ethylene is produced, the plant dormancy or termination process commences. For this reason the application of kelp will reduce fruit drop and prolong the plant growing season for annual plants and deciduous crops.

## Summary of benefits:

- Improved root growth
- Improved yield and quality
- Improves phosphate efficiency
- Improves nutrient availability
- Reduces fruit / grain drop
- Prolongs plant growing season
- Highly compatible
- Improves stress resistance

Refer to label for more detailed information.

## Application Rates

### Foliar:

Foliar - 1-4L application rate per hectare.

### In furrow/fertigation:

In furrow- 3-8L application rate per hectare

Aerial Application- 1-3L rates per hectare

### Compatibility:

Compatible with most agricultural chemicals but a jar test is recommended. Consult your Crop Smart representative with any queries.