

www.sjbagnutri.com.au

### SJB AG-NUTRI

# LIQUID NUTRIENT PRODUCT MANUAL









## PRODUCT MANUAL

**INNOVATION – SERVICE – EXPERIENCE** 

# SPECIALTY LIQUID NUTRIENT PRODUCTS



## WE ARE AUSTRALIA'S MOST TRUSTED NAME FOR SPECIALTY LIQUID NUTRIENT PRODUCTS FOR AGRICULTURE PURPOSES.

SUPPLYING QUALITY FOLIAR CHELATES, CONTROL RELEASE (CR) SOIL LIQUIDS, KELP, BIOLOGICALS, SOIL AMELIORANTS, CROP PROTECTANTS AND MUCH MORE. WE ALSO OFFER SOIL, TISSUE AND SAP ANALYSIS, AS WELL AS INTERPRETATION OF ANALYSES AND FREE NO-OBLIGATION NUTRITION PROGRAMS.



www.sjbagnutri.com.au

## FOLIAR APPLIED PRODUCTS

Established in 1989, SJB's chelated foliar nutrients have always provided optimum performance in Australia's most deficient soils, at a cost effective price for growers. The 'LIG' range is synonymous with quality, value and effectiveness. Our unique organic chelate is scientifically proven to provide significantly higher nutrient efficiency than inorganic salts & oxides for faster correction of nutrient deficiencies, combined with excellent physical compatibility with chemicals & other fertilizers. With more chelate per drum, growers can have confidence that the full analysis is in chelate form, and not just a product with 'added' chelate.



#### LIGNO-BORON<sup>®</sup> (B 8%)

Boron is essential for flowering & fruit/seed set in almonds, avocados, canola, mangoes, olives, poppies, pulses & strawberries. Complexed boron for better leaf uptake & utilization compared to boric acid. High crop safety & physical compatibility with chemicals. Hort 2-4 L/ ha, Broadacre 1-2 L/ha.

#### LIGNO-BORON + Mo (B 8% + Mo 2%)

Perfect combination of two essential trace elements to maximise yield and quality in a variety of crops. Promote flowering, seed set & nitrogen fixation in canola & pulse crops. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-CALCIUM + B<sup>®</sup> (Ca 6% + B 2%)

Available calcium for high value crops. Fast uptake with a high level of crop safety. Added boron complex to enhance calcium root uptake & also improve general quality & sugar levels. Excellent in strawberry & other fast growing, calcium sensitive crops. Hort 5-7.5 L/ha.

#### LIG-COPPER (Cu 5%)

Fully chelated with a high level of crop safety. Improve tree strength in almonds, onion quality & turf colour & health. Important nutrient for cereal crop yields. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

## LIG-GRAIN PLUS (Zn 4%, Cu 3%, Mn 1%, B 0.5%, Mo 0.1%)

Great combination of essential trace elements for cereal, canola & legumes to promote growth, yield & quality. Broadacre 1-2 L/ha.

#### LIG-IRON (Fe 6.25%)

Stable chelate also suitable for fertigation in high pH soils. High crop safety & excellent compatibility with other SJB chelates. Hort 2-5 L/ha.

#### LIG-K + BORON<sup>®</sup> (K 10% + B 2%)

Perfect combination for sizing or finishing off crops. Lifts total sugar/baume in grape, tomato & strawberry crops & increases specific gravity of potato tubers. Widely used in cotton for boll filling & improving fibre quality. Good tank mixing characteristics and can be applied by aircraft. Hort 5-10 L/ha, Cotton 5 L/ha.

### LIG-ZINC<sup>®</sup> (Zn 8%)

Premium zinc chelate. Fast acting with prolonged correction of major deficiencies compared to sulphates. Proven performer in high zinc demand crops such as almonds, cereal and potatoes. Physically compatible with a wide range of agri-chemicals. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-MAGNESIUM<sup>®</sup> (Mg 10%)

High analysis chelate for quick & lasting correction of magnesium deficiencies to optimize photosynthesis (sugar production). Magnesium sensitive crops include carrots, citrus, cucurbits, potatoes, table grapes & legumes. Hort 5-10 L/ha, Broadacre 2-3 L/ha.

#### LIG-MALLEE (Zn 5%, Mn 3%, Cu 1%)

Chelated formulation containing the most commonly applied trace elements on cereals, potatoes and pulses grown in alkaline soils. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-MANGANESE (Mn 8%)

Use in combination with LIG-ZINC<sup>®</sup> on manganese deficient soils or sensitive crops like cereals, citrus, pulses & vines. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-MOLY (Mo 4%)

Cost effective molybdenum complex. Essential for brassicas, cucurbits, grapes (Merlot), legumes & maize. Hort/Broadacre 1-2 L/ha.

#### **LIG-NIT** (N 32%)

Amide form of control release nitrogen ideal for winter vegetables or promoting growth in cold soils or under stress conditions (eg. waterlogging). Use to enhance wheat protein levels. Hort 5-10 L/ha, Broadacre 2-10 L/ha.

#### LIG-NITROS (N 24%, S 12%)

Unique nitrogen & sulphur complex ideal for canola crops and cereals. Late applications can enhance wheat protein levels. Braodacre 5-10 L/ha.

## FOLIAR APPLIED PRODUCTS

## VLP®

(10-2-7-0.5 + Mg 0.5% & trace elements)

Fully chelated complete nutrient spray. Ideal for young or slow/ stressed crops. Outstanding physical compatibility with cover sprays & very cost effective. Promote growth & colour in winter vegetable crops. Add with GA sprays to promote growth of winter ryegrass. Hort: 2-10 L/ha, Broadacre 5-10 L/ha.



#### LIG-PENINSULA (Mn 5%, Zn 3%, Cu 1%)

Ideally suited for manganese deficient calcareous soils. Better utilization, compatibility & ease of use than sulphate blends. Broadacre 1-2 L/ha.

#### LIG-POLYPHOS® (P 10%)

Available polyphosphate complex optimized for foliar uptake. Excellent physical compatibility with SJB zinc & calcium chelates as well as most agri-chemicals. Improves early development of vines as well as vegetable, potato & tree crops grown on alkaline or high phosphate retention soils. Also use to enhance colour & ripening in fruit crops. Ideal early P supplement for cereal crops. Hort 5-10 L/ha, Broadacre 2-5 L/ha.

## **LIG-TRACE**<sup>®</sup> (Zn 2%, Mn 2.5%, Fe 2%, Mg 1%, S 2%, B 1.4%, Cu 0.5%, Mo 0.1%)

A balanced range of essential trace elements for optimum crop growth & health. Ideal for crops grown in alkaline soils. Fully chelated & low cost per hectare. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

LIG-TRACE TAS (N 5%, Zn 2%, Mn 2.5%, Mg 1%, S 2%, B 1.4%, Cu 0.5%, Mo 0.4%) Fully chelated trace mix formulated for Tasmanian growing conditions. Hort 2-4 L/ha.

#### LIG-ZINC + BORON (Zn 6% + B 2%)

Great as a post-harvest or pre-flowering spray to enhance fruit set. The inclusion of boron helps maintain calcium uptake whilst also improving general fruit quality & finish. Enhance flowering and seed set in canola and pulse crops. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-ZINC + COPPER (Zn 6% + Cu 2%)

Zinc & copper deficiency are common in many crops and this combo is great for improving plant health. Copper strengthens young trees and plays a critical role in disease resistance. Fully chelated for excellent crop safety & compatibility. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### LIG-ZINC + Mn<sup>®</sup> (Zn 5% + Mn 5%)

Ideally suited to crops grown on alkaline soils. Popular in vines, citrus & potato crops. Excellent binding properties make it ideal for pivot irrigated crops. Promotes even tuber set in potatoes & even fruit set in vines. Also available as Zn 6% + Mn 2%. Hort 2-4 L/ha, Broadacre 1-2 L/ha.

#### PASTURE CAL (Ca 8%, N 5%, Zn 0.25%, B 0.25%)

Chelated formulation containing essential calcium for pasture and stock health. Added zinc & boron which are often lacking in pasture situations. Can supplement lime or gypsum application. Broadacre 5-10 L/ha.

#### **STOPROTCAL B** (Ca 16%, B 0.2%)

Low cost calcium with boron for enhanced fruit quality in tree crops such as apples, cherries and mangoes. Hort 5-10 L/ha.

### TAS CAL-MAG + BORON (Ca 14%, N 14%,

Mg 4%, B 0.1%)

High analysis calcium product ideal for promoting fruit quality. Nitrogen, magnesium & boron enhance winter growth & colour. Includes organic chelate for improved foliar uptake. Hort 2-4 L/ha.

**GREENA®** (11-0.5-6 + Awaken® & NutriSync D) Complete nutrient formulation based on our proven foliar chelation technology including advanced Inositol & ACA chemistry. Feeds the crop & also promotes nutrient uptake & utilization for better growth & fertilizer efficiency. Hort 3-7.5 L/ha, Broadacre 2-3 L/ha.

**GREENA®** M (11-0.4-6 + Awaken® & NutriSync M) Formulated for use in monocot crops such as cereals, grass pastures, maize, sugarcane & onions. Full nutrient package with Inositol & ACA chemistry. Hort 5 L/ha, Broadacre 2-3 L/ha.



## SOIL APPLIED PRODUCTS

#### **CONTROL RELEASE POLYMERS**

Designed for fertigation, our Control Release (CR) polymer liquids can be used to complement or replace existing soluble granular products. The polymer improves nutrient availability & reduces leaching, so less nutrient can be applied per hectare to achieve a similar yield response. CR polymers can also improve the efficiency of conventional granular products when used in conjunction. Chelated trace elements have also been added to many CR products to further enhance nutrient uptake, growth and yield response.



**CR CAL-NIT + B** (Ca 17%, N 12%, B 0.25%) An alternative to calcium nitrate with slow release nitrogen. Added boron helps maintain calcium uptake for optimum crop quality. Low nitrate to reduce excessive vigour that can lead to calcium deficiencies. Hort 10 L/ha.

#### CR K-NIT (6-0-18 + B 0.1%, Mo 0.02%)

A liquid potassium nitrate replacement for fruit sizing & general crop quality. CR polymers hold potassium in the profile to reduce leaching losses. Ideal in sandy soils or high rainfall areas. CR nitrogen provides more controlled growth than nitrates that can cause nutrient imbalance. Cost effective & easy to use alternative. Hort 10 L/ha.

**CR MAG-SUL PLUS** (Mg 10%, S 5% & B, Mo, Fe) Easy to use liquid magnesium sulphate equivalent with excellent crop availability. Hort 10 L/ha.

**CR MAPS + Zn** (8-10-0-5 + Zn 0.25%) Liquid MAP alternative with added sulphur & zinc to enhance phosphorous availability. Supplies crop available P in low or high pH soils. Hort 10 L/ha.

**CR MKP** (0-11-13 + Mg 1% & B, Fe, Mo) Excellent combination of nutrients for improving crop quality. Lower application rates than granular products & very cost competitive. Hort 10 L/ha.

**CR NPKomplete** (10-4-8-3 + Mg 1% & trace elements) A complete nutrient mix ideal for establishing young crops/vines. Excellent as a pre-flowering & post-harvest application in tree crops. Easy to use liquid without the hassle of spreading granules. Hort 10 L/ha.

### CR K-SUL (0-0-21-11)

High analysis K liquid. Great in situations where N is not needed or for finishing off nitrogen sensitive crops. Resists leaching & helps hold other nutrients in the profile. 10 L equivalent to 25-30 kg of granular potassium sulphate. Hort 10 L/ha.



#### CR PHOSIKA PLUS (0-15-0-5)

High analysis P liquid that can be readily utilized in high or low pH soils. Added sulphur improves biological activity & the release of locked-up phosphorous. Hort 10-50 L/ha, Broadacre 15-20 L/ha (in-furrow starter).

**INNOVATION - SERVICE - EXPERIENCE** 

## SOIL APPLIED PRODUCTS

### **PLEX CHELATES**

#### The PLEX range uses an organic

lignosulphonate chelating agent to deliver high nutrient availability in a wide range of soil types. PLEX products have excellent binding properties that reduce leaching & prolong nutrient absorption. Formulated for high value crops that need fast & available nutrients.

#### BORON PLEX (B 7.5%)

Boron polymer with lignosulphonate provides superior uptake compared to boron salts. Binding properties reduce leaching losses of boron from the active root zone. More stable & less subject to lock-up in adverse soil conditions. Higher availability and lower application rates significantly reduces the risk of toxicities occurring. Hort 5 L/ha.

#### CALCIUM PLEX (Ca 7.5%)

Pure calcium chelate without nitrogen provides improved fruit quality & shelf-life. Hort 10 L/ha.

#### CAL B PLEX THIO (Ca 6.5%, S 2%, B 0.5%)

Unique combination of two calcium sources with added boron. Organically chelated calcium for optimal availability plus sulphate-S which is an essential nutrient for nitrogen metabolism. Boron aids in calcium uptake and general produce quality. Hort 10 L/ha.

## **TRACE PLEX** (Mn 2.5%, Zn 2%, Fe 2%, B 1.4%, Mg 1%, Cu 0.5%, Mo 0.1%)

Complete trace element combo. Fully chelated for optimum effectiveness in a wide range of soil types. Hort 2-5 L/ha.

#### ZINC PLEX (Zn 11%)

High analysis zinc chelate for soil application. Stable over a wide soil pH range. Zinc is essential for reproduction and vegetative development. Hort 2-4 L/ha.

# ORGANIC CARBON & BIOLOGICALS

Organic carbon (eg. humus) is an important component of all soils since it influences the structural, chemical & biological properties, helping to maintain balance & soil health. Many Australian soils are low in organic carbon resulting in soil compaction, poor fertilizer efficiency & limited microbial activity that greatly reduces crop productivity.

## **LIG-KELP**<sup>®</sup> (4-3-4, Kelp, Fish Hydrolysate, Organic Chelate)

A unique kelp product to assist crop establishment and general health. Contains Tasmanian bull kelp which is a rich source of bio stimulants, fish hydrolysate for organic nitrogen and lignosulphonate chelate to enhance uptake and prolong foliar & root absorption. The reported benefits of kelp include increased tolerance to disease & environmental stresses such as frost, heat & moisture stress. When used at planting LIG-KELP can aid establishment & root development or reduce transplant shock. Hort 4-5 L/ha (foliar), 5-10 L/ha (fertigation), 1-2 L 100L (transplanting).



### **CALCIUM + BORON PLEX**

#### (Ca 7%, B 1%)

Calcium chelate plus boron complex for optimum uptake & crop quality. Ideal for tree crops & strawberries where high nitrates (eg. calcium nitrate) can produce excessive vegetative growth that compromises fruit quality. Calcium without nitrogen! Hort 10 L/ha.



### **LIG-HUMATES PLUS**

(13% Potassium Humate, 33% Lignosulphonate, Organic Carbon 15%, Kelp 5%, K 4%, Aminos 1% + 5 Species of Bacillus)

Premium soil biological containing Potassium Humate, kelp & bacillus plus a rich source of organic carbon. Pre-plant 20-50 L/ha, Seeding/transplanting 500 mL/10L, Fertigation 5-10 L/ha.

## LIG-HUMATES<sup>®</sup> (16% Potassium Humate, 33% Lignosulphonate)

Formulated specifically for drippers, LIG-HUMATES contains a combination of potassium humate & modified lignosulphonate compounds. When applied to soils, LIG-HUMATES enhances nutrient & water holding capacity by complexing nutrients & holding moisture in the soil profile. This is especially helpful on light or sandy soils where nutrients are readily leached through the profile. LIG-HUMATES is also ideal during the growing period in crops where nutrients are being constantly applied, as it improves fertilizer efficiency & can reduce the total nutrient inputs required to grow a crop. LIG-HUMATES promotes biological activity in the soil which leads to organic matter breakdown & the subsequent release of previously 'locked-up' nutrients. Hort 10 L/ha.

## LIG-CARBON (Organic Carbon 25%, K 7%, S 3.5% + 5 Species of Bacillus)

High level of available organic carbon in combination with bacillus bacteria that promotes biological activity, nutrient release & enhanced crop performance. Pre-plant 50-100 L/ha, Seeding/transplanting 50-100 mL/10L, Fertigation 10 L/ha.

### **SOIL AMELIORANTS**

**AQUA-GYP** (Ca 17.4%, S 14%)

Refined liquid gypsum formulation to correct salinity issues during the growing season and also provides available calcium & sulphur for crop growth & quality.

### **PH BOOSTER CAL®**

(Ca 40% as carbonate)

High quality Technical Grade Liquid Lime that quickly corrects acidity issues in-crop and reduces levels of toxic aluminium. Excellent source of available calcium for enhanced fruit quality. Low average particle size of just 2 micron provides immediate results as well as excellent shelf life.





## **BULK LIQUID STARTERS**

**BULKA 13** (9-13.5-1 + Zn 0.9%) Popular phosphate based starter blend with a good level of zinc to enhance germination and early growth.

KICKSTART NP (10-16-0) Cost effective ammonium polyphosphate (APP) blend.

KICKSTART NPKz (15-10-10 + Zn 0.1%) High analysis NPK blend plus added zinc suitable for a wide range of crops and soil types.



INNOVATION - SERVICE - EXPERIENCE

## SEED DRESSINGS

SJB's chelated seed dressings provide a convenient & low cost option for addressing early trace element issues while enhancing germination, root development and yields.

#### LIG-GRAIN (Zn 9%, Cu 0.5%, Mo 0.1%)

Independent replicated trials have shown LIG-GRAIN improves grain yields in all major growing regions of Australia. High analysis zinc chelate with added copper and molybdenum to enhance germination & early growth. Low cost per hectare and easy to apply liquid formulation. Also use as a foliar spray. Seed 4-8 L/T, Foliar 1-2 L/ha.

## KICK START P (P 6%, Zn 4%, Mn 3%, Cu 0.1%, Mo 0.1%, Co 0.1%)

A unique phosphorous based seed dressing with essential trace elements to improve early root development and top growth. Compatible with chemical seed treatments. Seed 4-8 L/T.

## FUNGICIDE

## SPRAY AID

#### **LIG-BUFFER®**

(130g/L Glycolic acid, 200 g/L non-ionic surfactants) Contains an acidifier & non-ionic surfactant that can be added to nutrient & chemical sprays to enhance their efficacy. High pH water often contains calcium, sodium & magnesium salts that can react with chemicals (alkaline hydrolysis) greatly reducing their absorption & efficacy. Many pesticides & herbicides also have optimum activity in acidic solutions. Nutrient absorption for many crops is higher when an acidic solution is applied to the leaf surface. The waxy cuticle on the leaf surface creates a barrier for absorption of nutrients & systemic chemicals. Surfactants (or wetters) reduce surface tension allowing spray droplets to spread and cover a wider leaf surface area. This increases the contact of nutrients & chemicals with cuticular pores where absorption takes place, thus improving leaf uptake. LIG-BUFFER is a low cost input that can significantly improve the results of your spray program. Rate: 70-200 mL/100L water.

#### PHOSIC<sup>®</sup> 600

#### (600g/L phosphonic acid)

Phosphonic or phosphorous acid (H3PO3) releases phosphite ions upon dissociation which have been shown to control fungal diseases such as root rot, downy mildew, late blight & phytophthora. Its primary mode of action is inhibition of oxidative phosphorylation (energy production) in the disease organism itself. A secondary mode of action is thought to be the stimulation of the plants own pathogen defence mechanisms (eg. the production of phytoalexins). PHOSIC 600 is a pH neutral (7.20) formulation that provides optimum crop safety, compatibility & performance. You can tank mix PHOSIC 600 with SJB chelates such as LIG-ZINC for an easy one pass operation. PHOSIC 600 is also very competitively priced when compared to other similar products on the market.



## CONTACT

We also offer comprehensive soil & tissue analysis services & can formulate nutrition programs from existing analyses.

National Manager:	. 0418 520 744
Victoria & Southern NSW:	0407 040 820
SA, TAS, WA & Sunraysia:	0408 633 661
QId, NT, Northern WA & Northern NSW:	0439 520 744

Technical Support:	
	info@sjbagnutri.com.au
Order Enquiries:	9 449 675 / 0488 771 876
	orders@sjbagnutri.com.au



