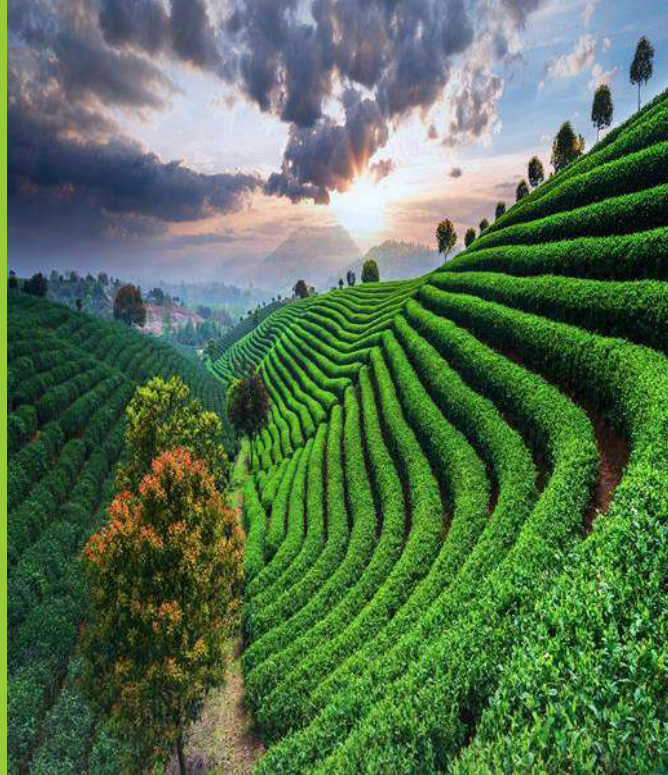


VARITIES

WARMER AREAS OF AUSTRALIA GROW **SOUTHERN Highbush** and **Rabbiteye** (low chill) VARITIES WHILE THE COOLER AREAS AND AREAS THAT EXPERIENCE FROST GROW NATURALLY **NORTHERN Highbush** VARITIES.

GROWING REGIONS

THE CROP IS GROWN IN TUMBARUMBA IN SOUTHERN NSW; THE ATHERTON TABLELANDS, BUNDABERG AND MUNDUBBERA IN QUEENSLAND; THE TAMAR VALLEY, MEANDER VALLEY, BERNIE, DEVONPORT AND THE HUON VALLEY IN TASMANIA; THE GRAMPIANS, SILVAN AND STRATHBOGIE IN VICTORIA; MARGARET RIVER AND GERALDTON IN WA; AND THE MOUNT LOFTY RANGES IN SA



BLUEBERRIES



Please note **ACO** logo is to represent **PLANO** and **PLANC** products, but not for other PLANT NEED products.



Please note our PLANO is only OMRI registered product but not other PLANT NEED products

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PLANTING

Blueberries prefer a deep, well-drained fertile soil, high in organic matter. For optimal growth they require a soil with a pH level of 4.5 – 5.5. Blueberry plants have a shallow fibrous root system and require regular irrigation throughout the growing season. In general 2 to 3 megaliters per hectare are required for commercial blueberry production. Mulching the plants with manure, compost and organic matter will help conservative soil moisture and reduce weed competition. In the ground, plant spacing will vary depending on variety. Generally Southern Highbush plants are spaced at 0.8 m to 1 m apart and Rabbiteye are planted at 1.2 m to 1.4 m spacings. Planting in north to north-easterly aspect is preferable to give maximum sunshine hours and the earliest production. Prune the plant after harvesting has finished, keeping only the strong, vigorous canes and laterals. The average mature blueberry bush should produce 4to 5kg or more of berries each season. Under-ripe fruit are usually a bit tart, so for maximum sweetness leave the berries on the bush for as long as possible. Wait for a week or so after final coloring has been reached, then pick the best and darkest from each cluster.

PLANC Is the best Bio Fertiliser PLANC [Plant Needs Neem Cake] is the material left after oil is squeezed out from Neem seeds and is popularly known as the 100% Neem seed cake. It acts as a bio fertiliser and soil conditioner by supplying the required nutrients to plants.

PLANO is Plant Needs Neem Oil, is a Natural product extracted from neem seeds, it contains Sulphur, proteins, glycerides and trace elements. Recommended for all crops, seeds and seedlings

Stop Borne as a biocide and universal disinfectant has multiple applications in sectors as varied as food processing, aquaculture, agriculture, floriculture, poultry, food & beverages, pharmaceuticals, hospitals, hospitality and many more sectors where disinfection and microbe load elimination plays an integral role for quality output in terms of a product / service



NUTRITION

Use **PLANC** and **PLANO** with added trace elements every fortnight throughout the growing season. The addition of **PLANO** every 15 days will strengthen root growth. It is important to maintain optimum plant health for the best results. When planning the site for your new blueberries, start preparing the site six months to a year before planting by incorporating organic material in the soil then add **PLANC** at the rate of 350kg per hectare. **PLANC** helps in soil improvement, fertility, PH balance, soil biology and detoxification of the soil. Other soil amendments as mentioned before, may help in soil moisture and aeration, adds necessary nutrients. Blueberries prefer nutrients from organic materials rather than heavy fertilisation, and they like 4 to 7 percent organic matter in the soil makeup. Acceptable organic materials include grass clippings, pine bark, manure or fallen leaves. Peat moss also works, even when added at the same time as planting. Turn the organic material into the top 4 to 6 inches of soil. Blueberries like acidic soil is it often has a higher concentration of iron and zinc. When the pH levels rise, the soil tends to lose iron and zinc. This stunts the plants growth and reduces the harvest. If soil tests after planting reveal a rise in pH, add small amounts of iron and zinc amendments to keep the plant healthy. Too much calcium in the soil keeps the soil from permanently lowering in pH, meaning you must test the pH each year and add amendments as necessary.

Recommended Agro Inputs for crops by Plantneeds Agronomists

PLANC - While planting apply PLANC by broadcasting to the whole blocks of land where you intend to plant, recommended rate is 350 – 400 Kg/hectare of planting area. Incorporate the applied PLANC by mixing into the soil and then leave it for a couple of weeks by maintaining the moisture level in the applied area. You can also use 10- 15 grams of PLANC for each planting hole while planting. *Benefits* – Benefits of PLANC for new plantings of blueberries will be as a soil conditioner and plant nutrients.

PLANO - PLANO will be recommended to fertigate the blueberries crops during peak growing season for example soon after pruning in the month of February till April and also in the month of September till early December. PLANO can be applied at the rate of 5 liter/hectare of total 20 -25 liter/hectare, Applied every 2 Weeks between the application. *Benefits* – Plano constitutes sulfur, glycerol, vitamins and almost additional 80 organic compounds in it which helps the blueberry plants to absorb and use all the organic compounds for its photosynthesis and immunity. That's why Plano applied blueberries are looking healthier and also yield high.

Crop Breath – Crop Breath can be fertigated at the rate of 2.5kg/hectare of planting area if the soil is compact and need more aeration as crop breath will supply oxygen to the roots and also it's a source of calcium.

Stop Borne – Stop Borne is universal disinfectant can be used by spraying on crop debris, farm machineries and packing facilities. Application rate of Stop Borne will be 5 mil/liter of water

Root Work – Root Work will be applied starting from the planting till the period of harvesting when required as root work will nurture the roots of blueberries and support them to exchange the nutrient ions thus influencing the uptake of plant nutrients.

Fish "N" Phos – This will be a source of nitrogen and phosphorous and also a food for soil microbes. Recommended rate will be 15liter/hectare every 3 weeks during peak growing period of the crops. This can be applied both as a fertigation and spray. Please note there may be a little phytotoxicity, please make a jar test before considering applying the full crops, however you can apply through fertigation without any hassle.

Root Work

Composition :

Unique Soil Probiotics	02.0%
Consortium	02.0%
Organic Carbon	35.0%
Sea Weeds Extracts	24.0%
Ascorbic Acid (Vitamin "C")	20.0%
Amino Acids	09.0%
Myo-Inositol	04.0%
Thiamine (Vitamin B1)	02.0%
Alpha-tocopherol (Vitamin "E")	01.0%

Crops : Recommended for All Crops

Dosage : Nursery & Main field : 0.5g per ltr of water. First spray at 20 days after sowing and thereafter with 15 days interval for each spray

Compatibility : Compatible with commonly used pesticides and fertilizers

PLANT PROBIOTICS FOR BIO-PRIMING

PLANT PROBIOTICS FOR BIO-PRIMING Enhances root system, **developing crop immunity**, results in increased nutrient uptake and thereby improved yields.

Net Wt. 250g.

KEEP OUT OF REACH OF CHILDREN



Mfg. by :

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plantneeds.com.au

21a Nathan Drive Campbellfield
Vic-3064 Australia P: 613 90058578
Email: plantneed@gmail.com
www.plantneeds.com.au

Batch No. _____

MFG. Date : _____

Exp. Date : _____

ABOUT FISH 'N' PHOS

Fish N Phos is a key in crop production for opening the soil and plant fertility together at the same time, as it is a food for soil web whilst supplying nutrients to the plants. This input is best suited for improving the soil strength.

- Can be used as foliar and soil application
- Odourless, easy to handle & simple to apply by spray equipment & fertigation
- Suitable for all soils, pastures, crops, orchards and vegetables
- Environmentally friendly & non-residual-safe to use in sensitive water catchment areas

Batch No : _____ Manufactured by Plant Needs Pty. Ltd. 21A Nathan Drive, Campbellfield Vic-3064, Australia Phone: 613 90058578 Email: plantneed@gmail.com Web: www.plantneeds.com.au

Date of Mfg : _____

Exp. Date : _____

Max Retail Price (incl. of all taxes) : _____

Keep out of reach of children. Not for human use. Use protective gear for eyes and skin. Empty packages/containers should be destroyed after use.

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FISH 'N' PHOS
FEED SOIL & PLANTS AT THE SAME TIME

APPLICATION:

Pasture:
Apply mainly spring and autumn 10 L/ha diluted 10:1

Field Crops & Vegetables:
Fertigate regularly 7-10 L/ha diluted min 10:1. Foliar spray 5-7 L/ha at 10-21 day intervals at 30:1 dilution.

Orchards and Vines:
Apply inter row to soil from early spring and in autumn. Foliar application through sprayers at 5-10 L/ha diluted 30:1. Up to 5 applications through growing period.
Varying soil conditions and other climatic factors may influence dosage rates.

TYPICAL ANALYSIS:

TOTAL NITROGEN	N	3.1%	TOTAL BARON	B	37.5 ppm
TOTAL PHOSPHORUS	P	1.51%	TOTAL MOLYBDENUM	Mo	0.08 ppm
TOTAL POTASSIUM	K	0.34%	pH		3.2
TOTAL CALCIUM	Ca	0.31%	ELECTRICAL CONDUCTIVITY		2150µS/cm
TOTAL MAGNESIUM	Mg	0.05%	TOTAL SELENIUM	Se	0.9 ppm
TOTAL SODIUM	Na	0.25%	TOTAL CADMIUM	Cd	nil
TOTAL IRON	Fe	184 ppm	TOTAL MERCURY	Hg	0.21 ppm
TOTAL MANGANESE	Mn	2 ppm	TOTAL LEAD	Pb	nil
TOTAL ZINC	Zn	45.7 ppm	TOTAL ARSENIC	As	nil
TOTAL COPPER	Cu	2.6 ppm	CRUDE PROTEIN		15%
TOTAL COBALT	Co	0.27 PPM	OMEGA OIL		4-7%
TOTAL SULPHUR	S	0.34%			

Available In:
1000 Ltr. IBC, 200 Ltr. drums & 20 Ltr. Cans



PEST AND DISEASES

Blueberry Scorch Disease - Symptoms are easily seen during bloom and you should be aware and that this disease is present on your farm. Any scorch infected bushes should be cut back and removed.

Phomopsis Twig Blight - Fields with symptoms of this disease should be targeted for management next season. Phomopsis can be recognized by dead cane tips that can be tracked down to a single point of origin such as infected bud.

Blueberry Mud Mite - Blistered red scales on bud, small leaves and fruits, damage may lead to poor growth and yields.

Mummy Berry - Drooping of new leaves and shoots in Spring; rapid browning of upper surface of affected shoots and leaf midribs and veins, death of infected shoots, leaves and flowers, infected berries are cream or pink in color

Phytophthora Root Rot - Yellowing leaves; lack of new growth on plants; highbush varieties become stunted and turn red; rabbit eye varieties may become chlorotic and scrop leaves.

Elephant Weevil

The accumulated damage from elephant weevil larvae, reduces blueberry yield and shortens the productive lifespan of blueberry plants by several years. Selective breeding to develop pest-resistant blueberry cultivars is a possible control option. Blueberry plants accumulated damage over time, that is, older plants tended to have more Elephant Weevil emergence holes than younger plants. There is potential for selective breeding to increase plant resistance to Elephant Weevil if the specific resistance mechanisms can be identified in blueberry.

