



# 3-18-18

## MACRO LIQUID FOLIAR FORMULATION

- **Readily Available for Fast Uptake**
- **Increase Bud Induction**
- **Enhance Bloom**

**GUARANTEED ANALYSIS:** F106

Total Nitrogen(N)	3%
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	18%
Water Soluble Potash (K <sub>2</sub> O)	18%
Weight Per Gallon	11.8
pH	7

**Derived from:** Urea, polyammonium phosphate, phosphoric acid, potassium hydroxide, monopotassium phosphate.

**PRODUCT DESCRIPTION:**

Our 3-18-18 is a highly soluble foliar, low salt index formulation developed to supplement standard soil fertility practice. Provides an additional source of nitrogen, phosphorus and potassium nutrients during the growing seasons. 3-18-18 is designed to be used in concert with soil and tissue tests and professional recommendations to manage the nutrient levels and nutrient balance within the crop. 3-18-18 is in a form readily absorbed by plant tissue to correct deficiencies quickly

**All Field Crops or Direct Seeded Crops:** 3-18-18 placed immediately under the seed can speed early growth and strengthen young plants. Apply 1 to 3 gallons per acre banded in the seed bed not in direct contact with seed. On light textured or sandy soils (CEC 20 or below) use 1 to 2 gallons per acre. Do not apply directly under seed on cotton. Do not apply to soils with inadequate moisture for germination unless seeds will be irrigated. Warning: Application to soils with inadequate moisture may result in germination problems.

**Early Applications for Seeded Crops:** Applications of 3-18-18 early in the plant's life can encourage earlier development, increased growth and vigor. 3-18-18 may effectively be applied at the first to second true leaf stage as a directed spray to the small plant. When spraying young plants, use ground application equipment and use "sprayed acres" to determine amounts of spray to be applied.

- **Increase Fruit Set**
- **Increase Fruit Size**
- **Fast Foliar Absorption**

Transplant Solutions		
Application	Rate	Frequency / Notes
Fruit, Nut and Citrus Trees, Berries, Vines	2 gallons in 100 gallons of water (2 Liters in 100 Liters of water)	Drench roots at time of transplant with 1 - 2 gallons ( 4 - 8 Liters) of mix.
Plugs	<b>Foliar Spray:</b> ½-1 gallon in 100 gallons of water (1 Liter in 100 Liters of water)	Drench plug and plant immediately. Do not allow plants to dry or wilt.
	<b>Injector Ratio:</b> 3.5 fl oz per gallon of stock tank water ratio at a 1:100 ratio (25 ml per L water at 1:100 ratio)	Set injector at 100 PPM of Nitrogen.

Greenhouse Foliar Spray Recommendation		
Application	Rate	Frequency / Notes
For All Types of Greenhouse Crops	<b>Transplanting:</b> Mix 1-2 oz per gallon of water (8-16 ml per liter water)	Soak plug tray or foliar spray after transplanting
	<b>Propagation:</b> ½-1 oz per gallon water (4-8 ml per liter water)	Apply at 2nd leaf stage and then every 10-14 day intervals.
	<b>Maintenance:</b> ½ -2 oz per gallon water (4-16 ml per liter water)	Apply at 10-14 day intervals to supplement nutrient requirements.

Fertigation / Drip Irrigation Rates		
Application	Rate per acre (Hectare)	Frequency / Notes
Sprinkler Irrigation	1-3 gallons (9-28 liters)	Apply 3-6 times per growing season or as needed to supplement nitrogen requirements
Drip Irrigation	Tomatoes & Peppers 1-3 gallons (9-28 liters)	Apply 2 times per month for 3 to 4 months.
	Strawberries 1-3 gallons (9-28 liters)	Apply twice monthly throughout growing season.
	Grapes, Trees & Vines 1-3 gallons (9-28 liters)	Apply 3 times per year or every 30 days in sandy soils.
	Lettuce, Celery and leafy Vegetables 1-3 gallons (9-28 liters)	Apply at first irrigation and repeat as needed.

Nursery Applications		
Application	Rate	Notes
Containerized and Field Grown Crops, (including but not limited to):Deciduous and Evergreen Trees, Foliage, Ornamental Grasses, Perennials, Tropicals, Woody Ornamentals	<b>Foliar Spray:</b> 1 gallon per 100 gal of water (1 L in 100 L water)	Thoroughly spray to point of run-off. Apply every 2-4 weeks.
	<b>Injector Ratio:</b> 5-7 fl oz per gallon of stock tank water at a 1:100 ratio (35-52 ml per 1 liter water at 1:100 ratio)	Set injector at 150-200 PPM of Nitrogen. Apply monthly.

## Crop Application Recommendations

Crop	Rate	Application Timing / Intervals
<b>Bananas</b>	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply at 2 - 3 week intervals. 20-30 applications per year.
<b>Berries</b> , such as (but not limited to): Blueberry, Blackberry, Raspberry, Strawberry	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after transplanting or prior to bloom. Repeat every 10 - 15 days.
<b>Bulb Vegetables</b> , such as (but not limited to): Onions, Garlic, Shallots	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply three times each season starting when first early-set is 3 inches, then at midseason, and then 2-3 weeks prior to harvest.
<b>Citrus</b> , such as (but not limited to): Grapefruit, Lemons, Limes, Oranges, Pomelo, Tangelo, Tangerines	½ - 4 gallons per acre (5 - 28 liters per hectare)	Apply first application pre-bloom. Apply subsequent applications at mid-crop, and 3-4 weeks prior to harvest, or as needed to supplement nutritional requirements.
<b>Cole Crops</b> , such as (but not limited to): Broccoli, Cauliflower, Cabbage, Brussels Sprouts, Collards	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply at early head formation and repeat 10-15 days later.
<b>Cucurbits</b> , such as (but not limited to): Cucumber, Cantaloupe, Squash, Pumpkin, Melons	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after transplanting, thinning, or at 2nd true leaf stage. Apply 1-2 subsequent applications at 10-15 day intervals. Use as needed to supplement nutritional requirements.
<b>Field Crops</b> , such as (but not limited to): Barley, Corn, Oats, Peanut, Rice, Soybean, Sugar Beet and Wheat.	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply at flag leaf emergence or early bloom and repeat in 14-21 day intervals. Assure good coverage.
<b>Fruiting Vegetables</b> , such as (but not limited to): Peppers, Tomato, Eggplant, Okra, Tomatillo	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after transplanting, thinning, or at 2nd true leaf stage. Apply subsequent application at 10-15 day intervals. Use as needed to supplement nutritional requirements.
<b>Grapes</b> , such as (but not limited to): Wine and Table Grapes	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply three to four times per season. Apply at first full leaf, then at post bloom berry size, and three to four weeks prior to harvest.
<b>Grasses</b> Grown for Seed, Sod Production, Pasture, Forage and Alfalfa	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply in early spring for good growth, then apply monthly and again after harvesting.
<b>Herbs and Spices</b> , such as (but not limited to): Coriander, Basil, Chives, Dill, Rosemary, Sage & Mint	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after planting and reapply after harvesting.
<b>Leafy Vegetables</b> , such as (but not limited to): Lettuce, Celery, Spinach, Parsley, Radicchio	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after transplanting, thinning, or at 2nd true leaf stage. Apply 1-2 subsequent applications at 10-15 day intervals. Use as needed to supplement nutritional requirements.
<b>Legumes and Pulses</b> , such as (but not limited to): Beans, Green Beans, Snap Beans, Lentils, Peas	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply after transplanting, thinning, or at 2nd true leaf stage. Apply 1-2 subsequent applications at 10-15 day intervals. Use as needed to supplement nutritional requirements.
<b>Root, Tuber and Corm Vegetables</b> , such as (but not limited to): Carrot, Potato, Sweet Potato, Beets, Ginger, Radish, Ginseng, Turnip	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply 3 - 4 times during season. The first application at early emergence, three to four weeks later, and at prebloom.
<b>Tree Fruits and Nuts</b> , such as (but not limited to): Almond, Apple, Apricot, Cacao, Cherry, Coffee, Filbert, Nectarine, Olive, Peach, Pear, Pecan, Pistachio, Plum, Prune, Quince and Walnut	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply three to four times per season, starting at three quarter leaf to first full leaf. Then at early fruit size/early nut development, fruit midsize, and three to four weeks prior to harvest. Apply as needed to supplement nutritional requirements.
<b>Tropical / Sub Tropical Fruits</b> , such as (but not limited to): Avocados, Coffee, Dragon Fruit, Durian, Mangos, Papaya, Pineapples, Rubber Trees	½ - 3 gallons per acre (5 - 28 liters per hectare)	Apply on new major growth and on successive flushes. Spray monthly until harvest. Do not apply during bloom.

**Crop Treatment Recommendations:** All recommendations are based on broadcast spray application. When band or directed sprays are used, calculate the rate for the sprayed acre only. For most field and horticultural crops the early season applications are directed sprays. For treatment of individual trees or vines, divide per acre by number of trees or vines per acre. Do add, as minimum, equal amounts of water.

**CAUTION:** Keep out of reach of children. In case of contact with eyes, flush immediately with copious amounts of water. Contact a physician. Do not take internally.

**Condition of Sale and Warranty:** Growth Products, Ltd. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. Handling, storage and use of the product by Buyer or User are beyond the control of Growth Products, Ltd. and Seller. Risks such as crop injury or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by Buyer or User. IN NO CASE WILL GROWTH PRODUCTS, LTD. OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

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