# FOLIAR FERTILIZERS











# THE NEXT GENERATION OF PLANT NUTRITION

Amp Agronomy<sup>™</sup> is a carbon-based foliar nutritional line built on Catalyst Technology<sup>™</sup> that makes nutrients more plant available. With the use of Catalyst Technology<sup>™</sup>, all Amp Agronomy<sup>™</sup> products were designed to be environmentally responsible, cost effective, easy to transport, and to provide nutrients to your turf, crops, sod, and ornamentals as efficiently as possible.

# WHAT MAKES UP CATALYST TECHNOLOGY™ ?



#### UNIQUE PROPRIETARY FORMULATION

Amp Agronomy<sup>™</sup> fertilizers begin with a unique active carbon ortho-phosphate complex along with a patented blend of amino acids, vitamins & minerals, and macro & micro nutrients.

#### PATENTED UHDC SIZING

Ultra-hydrodynamic cavitation (UHDC) is used to convert the nutrients of the proprietary formulation into nano-particle sized nutrients. These nutrients are sized extreme small that they are available for immediate entry and uptake by the plants root hair, root pores and stomata.

### NANO-SIZED NUTRIENTS ARE PROTECTED BY ENCAPSULATION

Carbon is used to neutralize the charge of the phosphorus, potassium and other nutrients so they are protected from tie-up with other ions in the soil and water.

This Advanced Natural Chelation technology protects the nutrients, allowing them to effortlessly enter the leaf and/or root tissue.

### HOMOGENIZED FORMULATION

The formulation of Amp Agronomy<sup>™</sup> is a homogenous, stable mixture where every drop contains the identical formulation and is ready to use.







# **BENEFITS OF AMP AGRONOMY™**

# **ULTRA-LOW APPLICATION RATES**

Due to its highly plant-available formulation, the typical application rate of Amp Agronomy™ products is about 2.5 L to 5 L per hectare. The liquid formulation permits users to apply a smaller amount of product, making it more environmentally friendly.

# **IMPROVED EFFICIENCY**

Amp Agronomy<sup>™</sup> is designed for foliar applications and promotes efficient nutrient delivery directly to the plant without soil tie-up. With fast and efficient nutrient delivery, better results and higher yields are achieved.

# **READY TO USE**

Amp Agronomy<sup>™</sup> products are liquid formulations and do not require a mobile unit to process or dispense the product. Less product and more efficient mixtures permit minimal effort and less preparation to apply.

# HIGHER YIELDS & BETTER QUALITY

Catalyst Technology<sup>™</sup> promotes efficient nutrient delivery to the plant with immediate and long-lasting effects. Research shows that crops produce higher yields and remain healthy and vibrant for longer periods of time. OUR CARBON BASED FOLIARS WERE DESIGNED TO BE ENVIRONMENTALLY RESPONSIBLE

# OUR FOLIARS HELPS YOU TO GET THESE JOBS DONE

	C.A.N 18-3-3	<b>GARBON KARMA</b>	ROOT DRIVER	K&P	MAX AMIND	PREP & RECOVER	MACRO MICRO	MEGA CAL	SALT REMEDY	<b>CA PLUS</b>	RENEW 911	ULTIMATE 3-0-3	TRIPLE EIGHT
WEAR/COMPACTION		•	•			•			•				
ROOT DEVELOPMENT			•	•							•	•	
RECOVERY/PLANT STRESS		•	•			•							
LOW LIGHT/SHADE	•	•			•								
TOURNAMENT PREPARATION	•					•	•						•
TRACE ELEMENTS	•			•		•	•				•	•	•
SODIUM/BICARBONATE FLUSH								•	•	•			
BALANCED NUTRITION & TURF COLOUR	•				•		•					•	•
SOIL MOISTURE MANAGEMENT		•	•					•		•			

# **ROOT DEVELOPMENT** & ESTABLISHMENT

# SALINITY MANAGEMENT



A dense, healthy, and thick root system is of utterly importance: it allows plants to absorb more water and nutrients leading to **healthier**, **vibrant** and more **vigorous plants**. Phosphorus ensures healthy root development while calcium helps build soil structures so that there are micropores for roots to grow in and properly absorb nutrients. Adding phosphorus stimulates tillering, and often hastens maturity. Amp Agronomy recommends consistent use of either or a combination of **Root Driver**, **Prep & Recover**, **Carbon Karma**, **K&P**, **Ultimate**, **Renew911**.



Salinity issues are frequently caused by an accumulation of salts in the root zone. As a result, water infiltration, percolation and soil aeration are reduced.

It is common to apply supplements of calcium to help with the overall health of a plant along with rebuilding the soil structure for roots to properly absorb nutrients. Aggressive applications of **Salt Remedy** restores the soil structure and helps with the prevention of sodium build up resulting in vigorous plant growth.

# TARGETED FERTILIZATION & MICRO-NUTRIENTS



These 5 products C.A.N 18-3-3, Macro Micro, Root Driver, Max Amino, Triple Eight, are formulated to provide the basic nutrients as well as the trace elements to maintain quality turf of key playing areas. It also consists plenty of phosphorus, as well as the amino acids and other natural nutrients that re-establish the microbial activity that the plant will depend on for productive growth.

# PLANT RESCUE & ENHANCE PLANT STRENGTH



Prep & Recover, K&P, Mega Cal, Root Driver, Ca Plus, Max Amino,
C.A.N 18-3-3 were developed with plant stress in mind and are formulated specifically for times that your plant needs quick recovery and stress
reduction and quickly bounce back from disease, drought, or high traffic wear.
Phosphorus and potassium help your plant resist stresses, whereas calcium will help build soil structure for proper nutrient absorption.



#### **GUARANTEED ANALYSIS 18-3-3**

TOTAL NITROGEN (N)	
AVAILABLE PHOSPHORUS (P2O5)	
SOLUBLE POTASSIUM (K2O)	
IRON (FE)	0.5%
MAGNESIUM (MG)	0.5%
MANGANESE (MN)	

# C.A.N 18-3-3

C.A.N 18-3-3 is the most efficient source of Carbon. Amino Acids and Nitrogen. It provides important proteins for enhanced plant growth along with key micro-nutrients. The carbon ensures that the plants get the right nutrients at the right time. The Nitrogen comprises of a precise blend of Nitrate Nitrogen to give that guick, up-front release, whilst also containing the long lasting release of Methylene Urea.



#### **GUARANTEED ANALYSIS 0-8-5**

TOTAL NITROGEN (N)	0.0%
AVAILABLE PHOSPHORUS (P205)	
SOLUBLE POTASSIUM (K20)	5.0%

# **ROOT DRIVER**

Root Driver protects the phosphorous with carbon complexing, keeping the phosphorous free from soil tie-up and available to your plants all season. Root Driver is plentiful in phosphorus, which is highly essential to all plants. It helps a plant convert other nutrients into usable building blocks with which to grow.



#### **GUARANTEED ANALYSIS 0-0-3**

SOLUBLE POTASSIUM (K2O)	
SULFUR (S)	
NON-PLANT FOOD INGREDIENTS	
HUMIC ACID	20%
HUMIN ACID	3.5%
FULVIC ACID	10.0%
COMPLEX CARBOHYDRATES	16.5%
TOTAL CARBON CONTENT	50%

# **CARBON KARMA**

Carbon is an important nutrient in soil. Carbon Karma is the proper mix of both carbon and proteins, beneficial for all plants. The humic and fulvic acids within Carbon Karma act as natural complexing agents for both macro and micronutrients enabling greater nitrogen efficiency and allowing for lower inputs. Carbon Karma will help you grow more robust plants by increasing plant available nutrients while also lowering overall nutrient inputs.



#### **GUARANTEED ANALYSIS 0-6-12**

TOTAL NITROGEN (N)	0.0%
AVAILABLE PHOSPHORUS (P205)	6.0%
SOLUBLE POTASSIUM (K <sub>2</sub> O)	
IRON (FE)	0.8%
MANGANESE (MN)	0.2%

### K&P

PLEASE CONTACT OUR OFFICE FOR MINIMUM **ORDER QUANTITY OF THIS PRODUCT** 

The combination of ionic potassium with phosphorus in K&P provides the optimum solution for strong turf and plants. The highly soluble and plant-available potassium in K&P is required to maximize plant growth. Proper potassium nutrition is critical for plants for water movement, energy production and the activation of enzymes that promote overall plant strength.



#### **GUARANTEED ANALYSIS 4-1-2**

TOTAL NITROGEN (N)	4.0%
AVAILABLE PHOSPHORUS (P205)	
SOLUBLE POTASSIUM (K <sub>2</sub> O)	
DERIVED FROM: VEGETABLE PROTEINS, POTASSIUM LACTATE.	

### MAX AMINO

Max Amino is an organic, foliar nitrogen fertilizer with 18 L-Amino Acids and is derived exclusively from vegetable proteins. Amino Acids are essential to assist with plant productivity in areas of environmental stresses. Amino Acids are the building blocks of proteins, which plants avail of and convert to new growth.



#### **GUARANTEED ANALYSIS 2-0-0**

TOTAL NITROGEN (N)	
AVAILABLE PHOSPHORUS (P)	0.0%
SOLUBLE POTASSIUM (K)	0.0%
MAGNESIUM (MG)	2.0%
MANGANESE (MN)	
IRON (FE)	0.8%
ZINC (ZN)	0.25%

# MACRO MICRO

The trace elements contained in Macro Micro are critical for the formation of chlorophyll and to aid with the production of essential proteins. Macro Micro contains a precise blend of Magnesium, Manganese, Iron and Zinc with additional Nitrogen to enhance plant quality and colour. It is essential that micro-nutrients are provided in a reacted form for ready plant uptake. Macro Micro is the answer.



#### **GUARANTEED ANALYSIS 7-11-3**

TOTAL NITROGEN (N)	7.5%
AVAILABLE PHOSPHORUS (P205)	
SOLUBLE POTASSIUM (K2O)	
ZINC (ZN)	1.5%
MAGNESIUM (MG)	0.7%
CALCIUM (CA)	0.7%
BORON (B)	0.1%
ALSO CONTAINS 7.5% AMINO ACIDS AND 4% SEAWEED	

### PREP & RECOVER

Prep & Recover<sup>™</sup> is a powerful combination of highly concentrated sea plant and marine organism extracts, humates, amino acids, calcium, magnesium and complex sugars and peptides combined with key macro and micronutrients to enhance the plants ability to fight stress and maintain proper metabolic functions. Prep & Recover is the premier bio-nutrient product for plant health, rooting and stress reduction.

> PLEASE CONTACT OUR OFFICE FOR MINIMUM Order quantity of this product.



#### **GUARANTEED ANALYSIS 0-0-0**

CALCIUM (CA)	20.0%
DERIVED FROM: CALCIUM CARBONATE.	

# **MEGA CAL**

Mega Cal contains readily plant-available Calcium which is highly soluble. The Calcium component in Mega Cal is both nano-sized and chelated which allows direct entry into the plant. Calcium is crucial to build stronger plants and to enhance soil conditions for optimum nutrient uptake. Mega Cal provides the industry's most cost-effective solution for efficient calcium nutrition.



#### **GUARANTEED ANALYSIS 5-0-0**

TOTAL NITROGEN (N)	5.0%
CALCIUM (CA)	<b>12.0</b> %
DERIVED FROM: UREA AND CALCIUM-MONOCARBAMIDE DIHYDROGREN CHLORIDE.	

# **SALT REMEDY**



Salt Remedy provides high levels of exchangeable calcium ions which displace harmful sodium ions. Sodium accumulations destroys the soils structure. As a result, water infiltration, percolation and soil aeration are greatly reduced. Seed germination is inhibited by high sodium levels and root growth is generally reduced.



#### **GUARANTEED ANALYSIS 2-3-2**

TOTAL NITROGEN (N)	
AVAILABLE PHOSPHORUS (P205)	
SOLUBLE POTASSIUM (K2O)	
ALSO CONTAINS AMINO ACIDS, SEAWEED, HUMIC AND FULVIC ACIDS ALONG With a bacterial micronutrient blend.	

# **RENEW 911**

PLEASE CONTACT OUR OFFICE FOR MINIMUM Order quantity of this product.

Renew 911 is designed to promote quick, uniform establishment by releasing natural growth hormones to promote strong root development. Renew 911 can be used for newly planted sod or during sprigging or reseeding where disturbed soils lack the nutrients required for fast establishment. It also enhances the health and vigour of shrubs and flowering plants.



#### **GUARANTEED ANALYSIS 5-0-0**

TOTAL NITROGEN (N)	5.0%
CALCIUM (CA)	
DERIVED FROM: CALCIUM NITRATE, SORBITOL AND STARCH.	

# **CA PLUS**

Ca Plus contains highly soluble Calcium Nitrate which strengthens the plants' cellular structure while stimulating root and leaf formations. Powered by Catalyst Technology™, Ca Plus increases calcium efficiency in plants by preventing soil tie-up with other nutrients in the soil.



#### **GUARANTEED ANALYSIS 3-0-3**

TOTAL NITROGEN (N)	3.0%
AVAILABLE PHOSPHORUS (P205)	0.0%
SOLUBLE POTASSIUM (K2O)	3.0%
IRON (FE)	0.5%
MANGANESE (MN)	0.5%
ZINC (ZN)	0.5%

PLEASE CONTACT OUR OFFICE FOR MINIMUM

**ORDER QUANTITY OF THIS PRODUCT** 

# ULTIMATE

Ultimate enhances plant strength and the resistance to both drought and temperature extremes. The Potassium component of Ultimate is responsible for triggering activation of enzymes and is essential for production of ATP, which is an energy source for chemical processes taking place in plant issues. Ultimate contains nutrients that enhance nitrogen conversion and amino acids that increase microbial activity.



#### **GUARANTEED ANALYSIS 8-8-8**

TOTAL NITROGEN (N)	8.0%
AVAILABLE PHOSPHORUS (P2O5)	8.0%
SOLUBLE POTASSIUM (K20)	8.0%
SULFUR (S)	0.03%
MANGANESE (MN)	0.016%
IRON (FE)	0.011%

### **TRIPLE EIGHT**

D.O.II PLEASE CONTACT OUR OFFICE FOR MINIMUM ORDER OUANTITY OF THIS PRODUCT.

Ideal for sports fields and golf courses, Triple Eight Field & Fairway is an all-purpose fertilizer that helps to quickly establish roots via highly available nitrogen, phosphorous, potassium and carbon. Triple Eight will bring carbon:nitrogen ratios to balance so that soil can efficiently hold nitrogen. This product benefits rooting, plant strength and soil quality.

# AMP AGRONOMY TOOLS FOR GROWTH

Centaur Asia Pacific has formed an exclusive agreement with Amp Agronomy to distribute their products in the Asia Pacific region. We bring their innovative products via our extensive distribution network to growers and turf professionals throughout the Asia Pacific region.

Amp Agronomy products are all formulated and manufactured in the USA. An experienced staff of agronomics, chemists and crop consultants make up the Amp Agronomy team. With years of real world experience, Amp Agronomy's expert team provides solutions to aid in the optimum yield, health, and growth upon application.



# **APPLICATION RATES**

PRODUCT	FOLIAR Application	CONTROLLED Irrigation	SOIL SPRAY/ Drench
	The below rates are per hectare		
C.A.N 18-3-3	4.7 - 9.35 L	4.7 - 9.35 L	
CARBON KARMA	2.35 - 4.7 L	2.35 - 9.35 L	2.35 - 9.35 L
ROOT DRIVER	4.7 - 9.35 L	4.7 - 9.35 L	4.7 - 14 L
K&P	2.35 - 4.7 L	4.7 - 9.35 L	2.35 - 7 L
MAX AMINO	2.35 - 4.7 L		2.35 - 9.35 L
MACRO MICRO	2.35 - 4.7 L		2.35 - 4.7 L
MEGA CAL	2.35 - 7 L		2.35 - 7 L
SALT REMEDY			4.5 - 18.7 L
CA PLUS	4.7 - 9.35 L		4.7 - 9.35 L
RENEW 911	2.35 - 7 L		2.35 - 7 L
ULTIMATE	4.7 - 9.35 L		4.7 - 9.35 L
TRIPLE EIGHT	4.7 - 14 L		

PREP & RECOVER	PER HECTARE	FREQUENCY
GREENS & TEES	6.4 - 9.6 L	7-14 days
FAIRWAYS	6.4 - 12.7 L	Monthly
HIGH STRESS AREAS	9.6 - 19.1 L	*2-4 weeks
TREES AND SHRUBS	0.6 L - 1.2 L /	100 L water
ANNUALS, PERENNIALS, ORNAMENTALS	1.3 mL- 2.6 mL / Litre of water	
SOIL DRENCH	20 mL - 40 mL	/ Litre of water

\* irrigate into root-zone

SPECIAL NOTES:	
SALT REMEDY	Irrigate immediately after application.
MACRO MICRO	To correct severe micro-nutrient deficiencies, apply at a rate of 93.5 - 140ml/100m2
MEGA CAL	Do not mix with Phosphates. Rinse equipment after use.



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Centaur Asia Pacific has warehousing facilities in Hong Kong, Vietnam, Singapore and Malaysia