

# TECHNOLOGY BEYOND the POINT of NUTRITION™

Active AgriScience Inc. supports the farming community by providing innovative, effective and economical products that increase yields. A leader in plant nutrient and bioactive compound research and technology, Active AgriScience uses rigorous scientific methods to develop and enhance products to improve farm production and profits.

3422 Millar Avenue Saskatoon, SK, S7K 5Y7, Canada tel.: 604.864.0154









# STRONGER

Active  $PRIME^{TM}$  induces synthesis of zeatin, a cytokinin, to promote shoot growth, resulting in faster and higher rates of germination.

#### **STRONGER ROOT GROWTH:**

**ENHANCED GERMINATION:** 

Active PRIME™ induces the indole-3-butyric acid (IBA) pathway resulting in higher levels of IBA in tissues leading to earlier and quicker root growth and development. As a result, Active PRIME™ treated plants are better able to maintain strong growthunder drought stress.

#### **REDUCED TRANSPIRATION:**

Active PRIME™ helps increase xylem pressure through positive water potential, and enhanced elasticity of the xylem, and helps to regulate stomatal function to reduce excess water loss.

#### **INCREASED WATER USE EFFICIENCY:**

Active PRIME<sup>TM</sup> combats drought induced changes in plants by inhibiting both ethylene synthesis and free radical formation. Ethylene and free radicals destabilize plant membranes, through fluidization and lipid peroxidation, resulting in water leakage and quicker wilting. Active PRIME<sup>TM</sup> treated plants exhibit greater water use efficiency and inherent resistance to these drought-induced changes.

# INCREASED NUTRIENT MOBILIZATION and ABSORPTION:

Active PRIME™ increases secretion of root exudates into the rhizosphere leading to increased bound nutrient mobilization, availability, and root interception. Active PRIME™ treated plants also show increased uptake of nutrients mobilized by mass flow.

# INCREASED PERFORMANCE UNDER STRESS CONDITIONS:

Active PRIME™ benefits are unaffected by unfavourable conditions. It maintains the ability to simultaneously upregulate desirable pathways and downregulate undesirable pathways, allowing plants to maximize their genetic potential under cold, wet or drought conditions.

### **INCREASED FUNCTION OVER a WIDE pH RANGE:**

Active PRIME™ contains simple organic molecules that act as either weak acids or bases to pH buffer solutions. This preserves Active PRIME's function and efficacy over various pH ranges.

# GUARANTEED MINIMUM ANALYSIS:

Total Nitrogen (N)	3.75%
Available Phosphate ( $P_2O_5$ ).	
Soluble Potash (K,O)	
Boron (B)(actual)	0.05%
Iron (Fe)(actual)	. 0.01%
Manganese (Mn)(actual)	0.8%
Zinc (Zn)(actual)	0.9%



#### **MIXING INSTRUCTIONS:**

- Apply Active PRIME™ as a seed nutrient dressing at 4 ml / kg of seed.
- Seed coating can be done simultaneously with Active PRIME™ and compatible agrochemicals (see Compatibility Chart).
- 3. If using Active PRIME™ without additional agrochemicals, use equal amounts of water and Active PRIME™ (1:1) to sufficiently coat seeds. Calibrate equipment to release the required amount of the Active PRIME™ mixture based on seed flow rate.
- Thoroughly mix seeds with the Active PRIME™ mixture.
   A colouring additive allows a visual check to ensure all seeds are uniformly coated.
- 5. Let the treated seeds air dry for 5-10 min before seeding.
- \* 3<sup>RD</sup> party field research with Ag-Quest, BC Grain, ICMS, Mara and New-Marc Research

ACTIVE AGRISCIENCE DISCLAIMER: Presented Data and product attributes will not guarantee the future efficacy and product attributes as these vary greatly related to weather conditions soil types and genetics of rope. It is understood and agreed that Active AgriScience Inc. ("Active") does not guarantee that use of its Products will yield any specific result. Active's legal liability, and that of its employees or agents, arising from use of its products shall be limited to the cost paid for the product regardless of whether any loss arose from Actives own negligence, breach of contract, or any other cause. Under no circumstance shall Active be liable, beyond the cost paid for the product, for direct consequential, incidental, or special damages, including, but not limited to, damage or destruction of a crop, or contamination of any property.

# 70 **2.7**65 **2.7**60 bu/acre 55 50 45 40 35 30

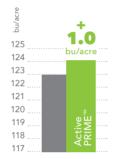
### WHEAT • 6 YEAR AVERAGE YIELD DATA \*

TREATMENTS	YIELD - 2013 (bu/acre)	YIELD - 2014 (bu/acre)	YIELD - 2015 (bu/acre)	YIELD - 2016 (bu/acre)	YIELD - 2017 (bu/acre)	YIELD - 2018 (bu/acre)	6 YEAR AVERAGE (bu/acre)	% CHANGE
Check	77.0	63.3	50.9	45.3	68.2	37.5	57.0	0
Active PRIME™	81.0	66.1	54.2	47.3	70.9	38.8	59.7	4.7

# 70 **2.6**65 bu/acre 60 55 50 45 40 35 30

# CANOLA • 6 YEAR AVERAGE YIELD DATA\*

TREATMENTS	YIELD - 2013 (bu/acre)	YIELD - 2014 (bu/acre)	YIELD - 2015 (bu/acre)	YIELD - 2016 (bu/acre)	YIELD - 2017 (bu/acre)	YIELD - 2018 (bu/acre)	6 YEAR AVERAGE (bu/acre)	% CHANGE
Check	45.0	52.0	42.3	33.8	57.7	38.85	44.1	0
Active PRIME™	49.0	59.6	44.7	35.7	58.4	39.9	46.7	5.9



## **OATS • 3 YEAR AVERAGE YIELD DATA\***

TREATMENTS	YIELD-2016 (bu/acre)	YIELD-2017 (bu/acre)	YIELD-2018 (bu/acre)	3 YEAR AVERAGE (bu/acre)	% CHANGE
Check	138.1	159.6	70.6	123.0	0
Active PRIME™	143.5	157.7	71.2	124.0	0.8



**PEAS** • 2 YEAR AVERAGE YIELD DATA \*

TREATMENTS	YIELD-2016 (bu/acre)	YIELD-2017 (bu/acre)	2 YEAR AVERAGE (bu/acre)	% CHANGE	
Check	51.3	54.5	53.1	0	
Active PRIME™	54.5	62.2	58.4	10	

# **Active PRIME™ EFFECT**







