ROLES OF NUTRIENTS IN CUCURBITS (MELONS, SQUASH, CUCUMBERS)

Nutritional Product	Overview	Window 1: ESTABLISHMENT	Window 2: FLOWERING to FRUIT SET	Window 3: FRUIT DEVELOPMENT
CROP·POP LIQUID POP-UP FERTILIZER 9-24-4-2S-.25ZN-.11B-.1MN-.1CU UNDERTOW 0-0-3 FIELD READY CROP EXCELLENCE STRESS MASTER POTASSIUM PHOSPHITE FERTILIZER 5-0-5 WITH UPTAKE ENHANCEMENT TECHNOLOGY FOLI·POP K Foliar Liquid Fertilizer with Slow Release Nitrogen 5-0-15 with Sulfur and Boron CELP 4-0-9	**Potassium (K):** High levels of available potassium are key in cucurbits because K helps with water use efficiency and overall plant health. Potassium and phosphorus are required in large quantities throughout the growing season.	Potassium at this stage helps the growing plants maintain plant health and guards against water stress. At planting apply **Crop-Pop™**. Treat starter fertilizer with **UNDERTOW®**.	Potassium influences the transport of nutrients and movement of carbohydrates from leaf to flowers AND from leaves to developing fruit. Therefore, potassium in cucurbits is critical for both high yields and good quality fruit. Foliar apply **STRESS MASTER™**, **FOLI-POP K™**, or **CELP 4-0-9™** if more potassium is needed.	High levels of potassium play a key role in cucurbits because of its role in water use efficiency and good plant health. Potassium and phosphorus are required in large quantities throughout the growing season. Foliar apply **STRESS MASTER™**, **FOLI-POP K™**, or **CELP 4-0-9™** if more potassium is needed.
CROP·POP LIQUID POP-UP FERTILIZER 9-24-4-2S-.25ZN-.11B-.1MN-.1CU UNDERTOW 0-0-3 FIELD READY CROP EXCELLENCE STRESS MASTER POTASSIUM PHOSPHITE FERTILIZER 5-0-5 WITH UPTAKE ENHANCEMENT TECHNOLOGY	**Phosphorus (P)** Under situations of high phosphorus tie-up (e.g. extremely high or low pH soils, low organic matter, low P, sandy soils) it is important that fertilizer-P is placed close to the root zone. Because phosphorus is relatively immobile in the soil, banding the fertilizer or fertigation usually works better than broadcasting.	Early phosphorus is important for establishing good root and shoot development in cucurbits. At planting apply **CROP-POP™**. Treat starter fertilizer with **UNDERTOW®**	Mid-season phosphorus availability strongly affects flowering and fruit set in cucurbits. Without adequate soil phosphate early to mid-season cucurbit development will not be optimal. Foliar Apply **STRESS MASTER™** if more phosphorus is needed.	Following flowering and fruit set, having available phosphorus is an essential component for continued fruit development. Foliar Apply **STRESS MASTER™** (Potassium Phosphite) if more phosphorus is needed.
SERPENTINE NITROGEN STABILIZER	**Nitrogen (N)** Cucurbits require low nitrogen and high potassium and phosphorous for good fruit yield and quality. Excessive nitrogen in any form can lead to excessive vegetation with poor fruit quality. The form of nitrogen applied to cucurbits also significantly impacts their growth and yield, with nitrate forms generally being the preferred form, leading to better vegetative growth and fruit production compared to ammonium forms.	The highest requirement for nitrogen occurs here for cucurbits. N builds a strong, vigorous plant that is prepared to go into flowering/fruit set. Pre-plant, Planting, Side-dress, or Top Dress Treat with **SERPENTINE®**	Avoid excessive nitrogen during these stages of development as it can have a detrimental effect on the yield and quality of fruit.	
CaLCIUM X-TREME 15-0-0	**Calcium (Ca)** is a key component of cell walls, helping to build a strong structure and ensuring cell stability throughout the plant, especially in the developing fruit.	During this stage, calcium is a key component to build a strong structure and ensuring cell stability.	At later stages, foliar apply **Calcium X-TREME®** to maintain high calcium levels.	
MICRO MaX BORON X-TREME 7.5% DERIVED FROM BORIC ACID TENTACLE FOLIAR NUTRITION	**Micronutrients** like zinc, iron, manganese, copper, boron, and molybdenum are crucial for plant health, but their availability decreases as soil pH increases. High-pH soils are particularly prone to micronutrient deficiencies.	At Planting: Treat starter fertilizer with **MICROMAX™**	Elements like magnesium, manganese, boron, and zinc play vital roles in preventing disorders such as interveinal chlorosis, fruit defects, and overall plant health. Regular soil testing, tissue/sap testing, and targeted foliar applications can address deficiencies. At later stages, foliar apply **Boron X-TREME®** if additional boron is needed and **TENTACLE®** if micronutrients are needed.	
BUOY® CROP & ORNAMENTAL FROST CONTROL PROTECTION PARASOL PROTECTION®	**Frost and Sunburn Protection**	After the plant has emerged, or after transplanting - if a potential frost or freeze is on the horizon, apply **BUOY®** to help protect your crops. **PARASOL PROTECTION®** clear sun protectant provides a transparent film that protects the plant and the fruit from ultraviolet (UV) and infrared (IR) radiation preventing cell damage that can result in non-marketable fruit. **PARASOL PROTECTION®** does not interfere with photosynthesis, allowing passage of the light spectrum involved in this vital process.		

CUCURBIT DEVELOPMENT GROWTH CHART

WINDOW 1: ESTABLISHMENT	WINDOW 2: FLOWERING TO FRUIT SET	WINDOW 3: FRUIT DEVELOPMENT