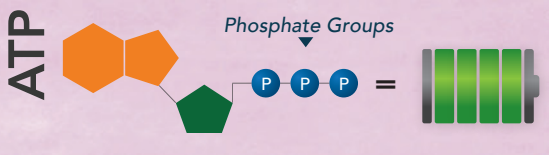
HOW DOES IT **WORK?**

BULK is a PK booster designed to improve plant performance, yield, and quality by providing a blend of essential nutrients for the reproductive stage. The product combines bioavailable phosphorus with fully soluble calcium and potassium for added weight to fruit and flowers.

Rx Green Technologies' exclusive technology allows for Calcium and Phosphorus to be combined together in one product, reducing the need for additional supplements.

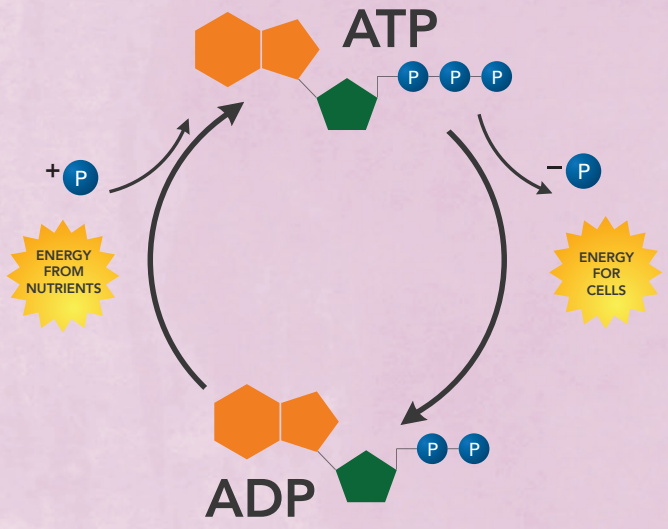
PHOSPHORUS

Phosphorus is a key element required in ATP synthesis. The ATP molecule is the main carrier and storage unit of a plant's energy. It acts as a "battery," storing energy when it is not needed and releasing it when it is needed. The remaining molecule then becomes ADP.



One of the roles of ATP is to provide energy needed by the plant to convert carbon dioxide into carbohydrates during photosynthesis. All the energy of ATP is stored in the phosphate (a salt formed from oxygen and phosphorus) groups of the molecule and is essential to the activity of ATP.

ATP contains three phosphate groups and releases one group when triggered by enzymes. The remaining molecule, containing only two phosphate groups, is known as ADP. This reaction releases the stored energy needed for many crucial metabolic functions, including the formation of organic compounds from photosynthesis. These organic compounds consist of cellulose, starch, lipids and proteins, all of which contribute to the total dry matter of a plant.



ADDITIVE **BULK**

PK BOOSTER | 2-12-3

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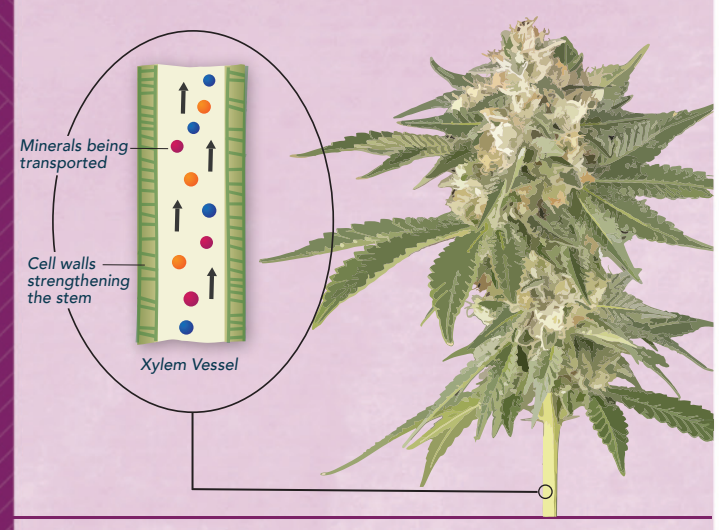
CALCIUM

Calcium is found in nearly every plant cell, mainly as a part of pectin found in cell walls. Without it, cell walls would shrink and collapse and the plant would not stand upright. Another key role of calcium is in mineral transport, by moving nutrients from the root zone through the xylem to other parts of the plant where they are needed for metabolic reactions. The flowering cycle of a plant comes with increased nutrient demands, making additional calcium necessary for flower growth.



POTASSIUM

Protein synthesis is an important step in creating plant biomass. Potassium promotes the conversion of nitrogen and glucose into amino acids and protein. Potassium plays a large role in enzyme activation that is necessary for protein synthesis, as well as enzymes used in photosynthesis and ATP synthesis.

PROTEIN SYNTHESIS

REPRODUCTIVE STAGE

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Sources:
http://science.jrank.org/pages/5143/Phosphorus-Cycle-Phosphorus-functions-recycling.html
http://www.bioag.novozymes.com/en/products/canada/aboutphosphate/role-of-phosphate-in-crop-growth/Pages/default.aspx#
http://www.chm.bris.ac.uk/motm/atp/atp1.htm
http://www.cropnutrition.com/efu-secondary-nutrients#calcium
http://www.oxyfertil.com/royaume-uni/role-ca-mg-plante.html
http://www.ecofarm.co.nz/site/probitas/images/articles/Protein%20Synthesis%20-%20AEA.JPG
https://www.ipni.net
Plant Physiology 5th ed. (2010) Taiz L., Zeiger E.; Sinauer Associates