

The Bounce Back Effect of Good Phosphate Management

Mitigate Drought Stress in Crops with Phosphorus Abundant Soils



Fertoz

PHOSPHORUS IS ESSENTIAL

- Energy transfer
- Photosynthesis Role
- Nutrient translocation
- Health and Vigour
- Root and Shoot Development
- Improved Nitrogen Fixation in Legumes
- More uniform crop
- Better Disease Resistance
- Greater Yields
- Enhanced Flower and Seed Production

SCIENTIFIC RESEARCH HIGHLIGHTS THE BENEFICIAL EFFECTS OF P ON DROUGHT RESISTANCE

Maintain optimum yields under water stress conditions

“The main limiting factors for growth and yield of wheat are moisture and phosphorus nutrition. Water stress drastically affects the critical growth stages of wheat. It was recommended to apply higher rate of phosphorus to compensate the drastic effect of water stress.”

Muhammad Zahid Mumtaz et al., 2014

Phosphorus nutrition plays an important role in crop responses to water stress

Adequate P supply to field peas resulted in the following

1. Enhanced water use efficiency
2. Increased Inorganic P and soluble sugar concentrations in drought stressed plants
3. Increased root length distribution in deeper soils

Jian Jin et al., 2015

Phosphorus fertilization improves tolerance to drought stress in many plants

“In soybeans, the addition of P alleviated the effect of drought stress on plant growth, P accumulation, and grain yield. Application of P fertilizers could mitigate drought stress at the reproductive stage, resulting in less yield penalty and improvement of grain quality of soybean grown in P-deficient soils.”

Jian Jin et al., 2006

Phosphorus plays a role in root signaling in wheat

“Optimum doses of P could be used to increase root growth and establishment under water stress.”

Mukhtar Ahmed et al., 2018

Phosphorus improves crop yields in saline conditions

Effect of P fertilization rate and placement on yield of oats and barley under saline soil conditions. Symptoms of salt injury were complete alleviate with higher application rates of P_2O_5 .

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