

Wuxal® provides 100% water-soluble, well-balanced nutrient formulations to ensure high crop yield and quality!

Primary Nutrients

Nitrogen

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| FUNCTIONS | <ul style="list-style-type: none"> • Essential component of all proteins and nucleic acids • Required for the formation of enzymes, phytohormones and chlorophyll • Stimulates vegetative growth |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Pale green chlorosis due to chlorophyll decomposition • Low tillering rate and reduced growth • Reduced protein content |
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SOLUTION: Wuxal 39 N, Wuxal 39 N plus, Wuxal Top N, Wuxal Amino

Phosphorus

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| FUNCTIONS | <ul style="list-style-type: none"> • Regulates energy metabolism • Important for cell structure stability • Promotes root growth and accelerates ripening • Required for formation of carbohydrates and proteins • Vital in fruit formation |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Stunted and dark green plants • Purpling of stem, petiole and underside of the leaves • Reduced root growth |
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SOLUTION: Wuxal P45, Wuxal Top P

Potassium

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| FUNCTIONS | <ul style="list-style-type: none"> • Regulates water retention and improves osmotic pressure of cells • Enhances resistance to frost, drought and diseases • Promotes sugar production and storage life |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Scorching and/or necrosis progressing from the leaf margin to the mid-rib • Reduced growth and withered appearance • Increased susceptibility to abiotic stress and diseases |
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SOLUTION: Wuxal K40, Wuxal Top K

Secondary Nutrients

Magnesium

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| FUNCTIONS | <ul style="list-style-type: none"> • Structural part of the chlorophyll molecule therefore very important in photosynthesis • Activates enzymes for synthesis of amino acids and proteins |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Interveinal chlorosis of older leaves that can turn into necrosis • Raised, puckered leaf surface |
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SOLUTION: Wuxal Magnesium

Calcium

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| FUNCTIONS | <ul style="list-style-type: none"> • Responsible for structural and physiological stability of plant tissue • Promotes cell division and thus fruit size • Prevents physiological disorders of fruit: Improved quality and prolonged shelf life |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Necrosis around the leaf base and death of the growing regions of roots and leaves • Bitter pit of apple, Blossom-end rot of tomato, Tip burn of lettuce, Blackheart of celery |
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SOLUTION: Wuxal Calcium, Wuxal Aminocal, Wuxal Ascofol Calcium

Sulfur

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| FUNCTIONS | <ul style="list-style-type: none"> • Constituent of some amino acids and hence of proteins • Component of important secondary metabolites like Glucosinolates (Responsible for the unique taste of many food plants) • Activation of enzymes in energy metabolism • Improves the efficiency of nitrogen |
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| DEFICIENCY ISSUES | <ul style="list-style-type: none"> • Overall yellow chlorosis retaining some green colour, but much more uniform over the entire plant compared to nitrogen • Reddish veins and petioles with brown lesions and/or necrotic spots • Disturbed protein formation |
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SOLUTION: Wuxal Sulphur, Wuxal Brassica

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Boron

- FUNCTIONS**
- Promotes pollen fertility and fruit set
 - Required for cell wall stabilization
 - Improves sugar production and transport
 - Important for root growth
 - Improves frost resistance

- DEFICIENCY ISSUES**
- Limited blossom and reduced fruit growth
 - Growth depression due to limited root growth
 - Heart rot in sugar beet
 - Dying of growing point
 - Heart rot and dry rot of sugar beet



SOLUTION: Wuxal Boron, Wuxal Brassica, Wuxal Ascofol, Wuxal Microplant

Copper

- FUNCTIONS**
- Involved in sugar and protein production
 - Required for many enzymes involved in photosynthesis and chlorophyll production
 - Improves plant resistance to disease

- DEFICIENCY ISSUES**
- Chlorosis and white colouring of the youngest leaves
 - Dwarfing of young shoots



SOLUTION: Wuxal Ascofol Cu, Wuxal Microplant

Molybdenum

- FUNCTIONS**
- Essential to convert nitrate to ammonium in the plant tissue
 - Required for nitrogen fixation in legumes
 - Part of enzymes involved in energy metabolism

- DEFICIENCY ISSUES**
- Disturbed growth and photosynthesis
 - Mottled spotting with some interveinal chlorosis
 - Whiptail appearance



SOLUTION: Wuxal Brassica, Wuxal Molybdenum, Wuxal Microplant

Manganese

- FUNCTIONS**
- Activation of enzymes for photosynthesis. Protein and chlorophyll formation.
 - Improves green ground colour of fruit
 - Enhances resistance to fungal diseases

- DEFICIENCY ISSUES**
- Light interveinal chlorosis with stunted growth
 - Necrotic areas along the veins
 - Reduced carbohydrate and protein content



SOLUTION: Wuxal Manganese, Wuxal Microplant

Zinc

- FUNCTIONS**
- Activates a series of important enzymes
 - Important for CO₂-fixation
 - Involved in plant growth regulator synthesis and chlorophyll formation

- DEFICIENCY ISSUES**
- Chlorosis in the interveinal areas of young leaves
 - Stunted leaf and plant growth



SOLUTION: Wuxal Zinc, Wuxal Microplant, Wuxal Ascofol Zinc, Wuxal Terios Zn (for seed treatment)

Iron

- FUNCTIONS**
- Part of multiple enzymes and responsible for the transfer of electrons
 - Important for chlorophyll formation
 - Promotes photosynthesis and protein metabolism
 - Involved in the respiration chain

- DEFICIENCY ISSUES**
- Reduced production of carbohydrates and proteins
 - Starts as chlorosis in young leaves and ends as a totally bleached leaf



SOLUTION: Wuxal Ferro, Wuxal Microplant