



# GLUCONATES



BIOTECHNOLOGY  
BASED PLANT  
NOURISHING  
PRODUCTS

**Subhash Fertilizer Private Limited**

( A Krishidhan Group Company )



## GLUCONATE TECHNOLOGY

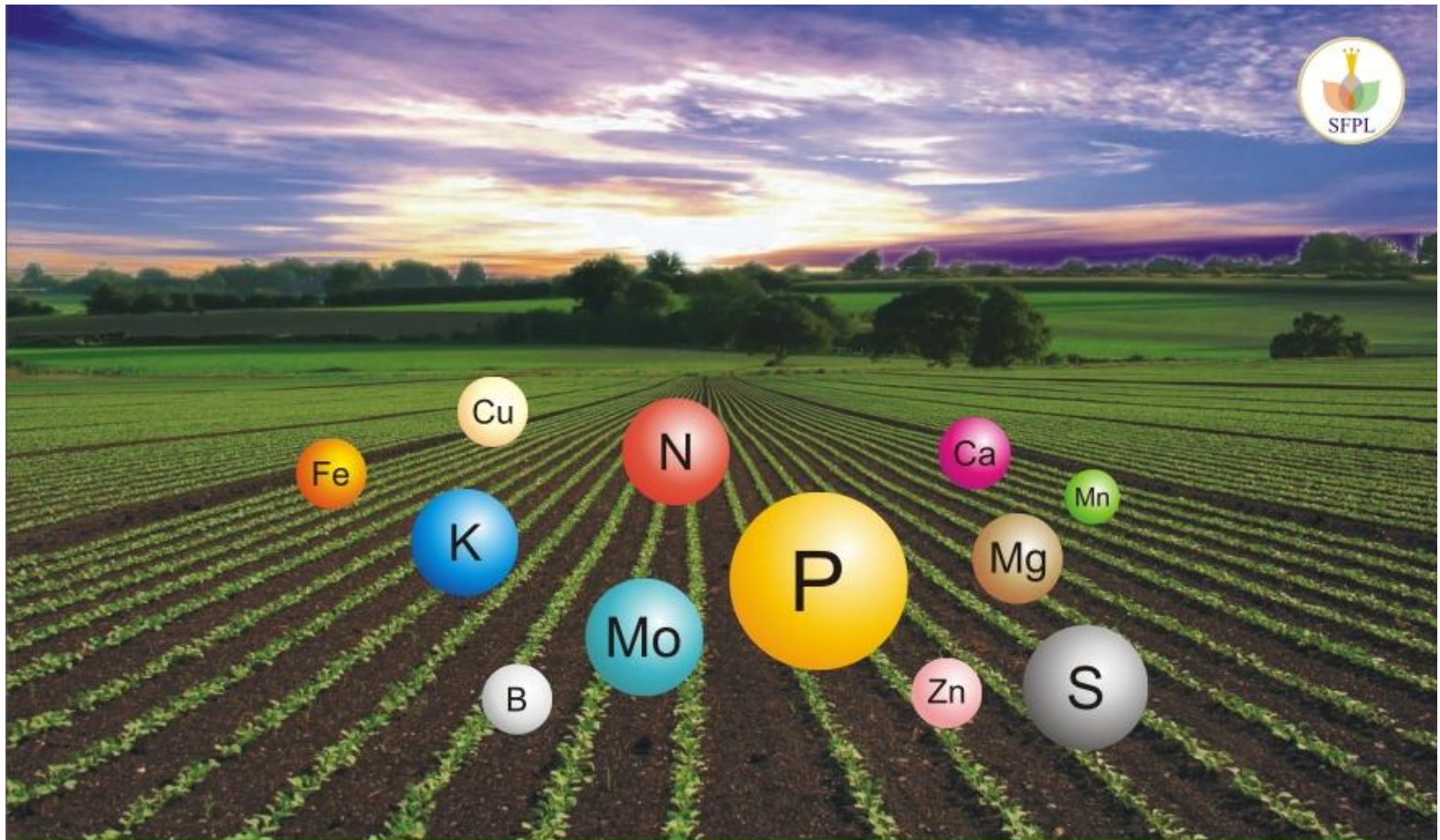


**CSIR**

*our future through science*

“**Gluconates**” are innovative biotechnology based plant nourishing products. These are developed based on a novel patented microbial fermentation technology of Indian Institute of Integrative Medicine (IIIM), a reputed CSIR research institute. The Gluconates are produced by aerobic fermentation of Glucose in presence of a GRAS micro-organism under specifically defined physio-chemical conditions. Gluconates produced out of this green and indigenous technology are environment friendly and cost effective. Besides agriculture, Gluconates have established vital pharmaceutical and industrial applications.





## GLUCONATES: Balanced Nutrition for Rejuvenation & Stress Free Crops

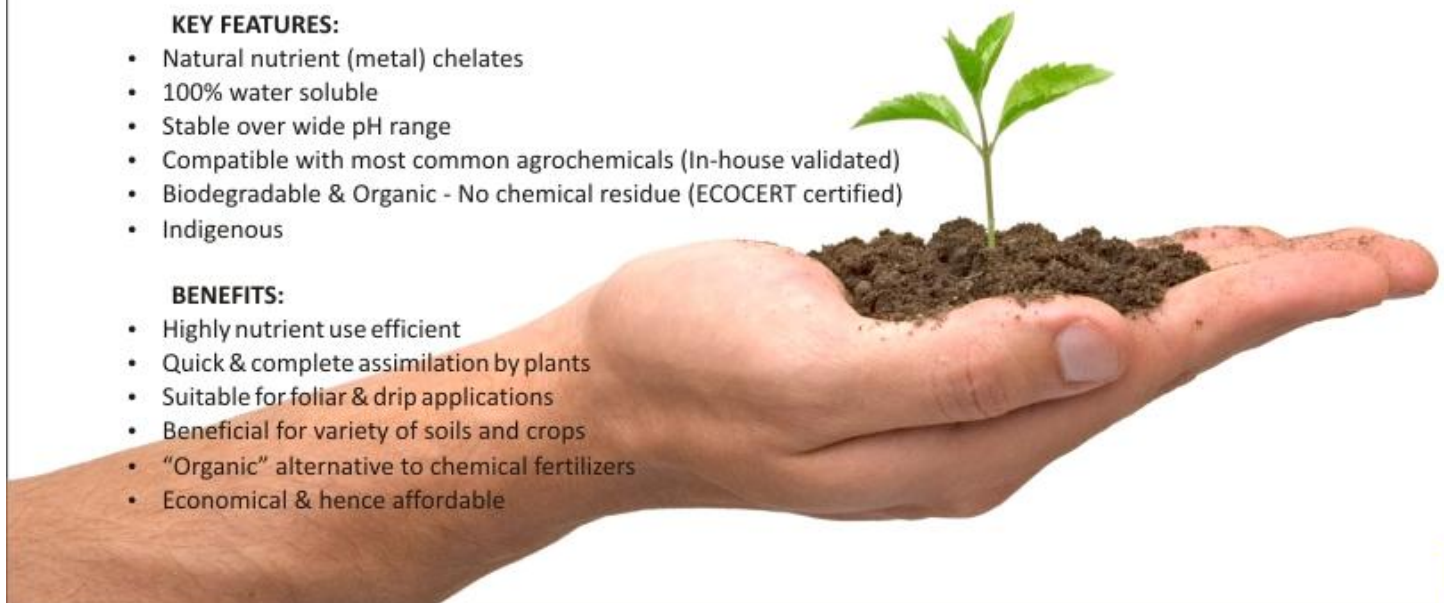
Gluconates serve as an efficient nutrient carriers and further protect valuable nutrients from undergoing any undesirable chemical transformations under adverse pH conditions when applied directly to natural soil and through poor quality irrigation waters, thus enabling 100% bio-availability of essential nutrients to crops.

### KEY FEATURES:

- Natural nutrient (metal) chelates
- 100% water soluble
- Stable over wide pH range
- Compatible with most common agrochemicals (In-house validated)
- Biodegradable & Organic - No chemical residue (ECOCERT certified)
- Indigenous

### BENEFITS:

- Highly nutrient use efficient
- Quick & complete assimilation by plants
- Suitable for foliar & drip applications
- Beneficial for variety of soils and crops
- "Organic" alternative to chemical fertilizers
- Economical & hence affordable





## PRODUCTION FACILITY:

**Subhash Fertilizer Private Limited (SFPL)** - A KRISHIDHAN group company has established a state-of-the-art production facility of various Gluconates in the seed industrial hub of India ie. Jalna in Maharashtra. The facility is manned by qualified & experienced engineers & technologists responsible respectively, for production & stringent quality control to ensure development of finest quality products to roll out of the factory.

## R&D:



DSIR

SFPL's R&D is DSIR recognized, a prestigious recognition by Government of India. It is engaged in development of soil & crop specific Gluconate based plant nutrient formulations which are scientifically & stringently evaluated through multi-location field trials on multiple crops by continuous in-house, farmer monitored and State Agriculture University (SAU) monitored trials. SFPL has conducted many field trials to evaluate its product through active public-private partnership collaborations.



# Gluconates – Agronomic Advantages



## GLUCONATE FIELD TRIAL ON COTTON AT MAU, PARBHANI (KHARIF 2009)

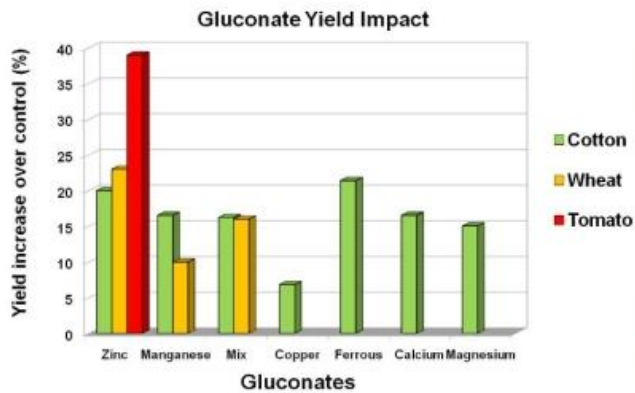


Control (35 DAS) Zinc Gluconate (35 DAS) Control (65 DAS) Zinc Gluconate (65 DAS)

### Conclusions

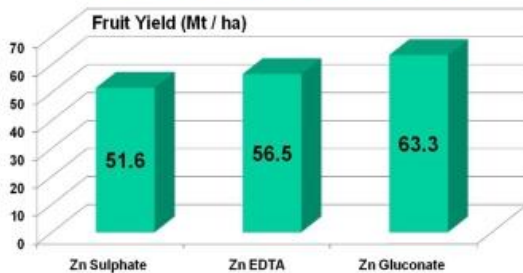
- 1) Zinc Gluconate, Mg Gluconate and Fe Gluconate have performed significantly better compared to corresponding EDTA chelates in improving the yield of Cotton.
- 2) The foliar application of Gluconate chelated plant nutrient products potentially improves the physiological traits like growth and yield of Bt Cotton crop.

## Trials conducted by SAU for cotton & Tomato and in-house for wheat replicated by anonymous farmers



Gluconates agronomically out performed inorganic nutrient carriers as well as synthetic chelates.

## ZINC GLUCONATE FIELD TRIAL ON TOMATO AT MPKV, RAHURI, RABI 2009 - 10



“ Application of Zinc Gluconate through soil as basal + foliar at flower initiation and fruit development stages of Tomato crop showed significant increase with respect of growth & yield of Tomato ”.



## PRODUCTS:

### Recently launched products:

#### Gluco Zinc

Zinc Gluconate (Zinc 12%)

##### Benefits:

- ▶ Improve emergence of new flush & buds
- ▶ Increase no. of branches and tiller
- ▶ Eliminates "khaira" disease in Paddy

**Application:** Apply @ 2-3 ml/L twice through foliar at 15 days interval during vegetative crop growth stage.

#### Gluco Potash

Potassium Gluconate (Potash 14%)

##### Benefits:

- ▶ Increase grain, boll & fruit size
- ▶ Improves quality of farm produce
- ▶ Impart pest and water stress resistance
- ▶ Strengthens stalks & prevent lodging in cereals

##### Application:

Apply @ 2-3 ml/L 2 to 3 times through foliar at 15 days interval during grain or boll or fruit development stage.

#### Gluco Mag

Magnesium Gluconate (Magnesium 6%)

##### Benefits:

- ▶ Increase 'Chlorophyll' content & photosynthesis
- ▶ Improve Phosphorus uptake
- ▶ Reduce 'leaf reddening' in Cotton
- ▶ Critical nutrient in Cotton, Soybean, Potato, Citrus Tobacco etc

**Application:** Apply @ 2-3 ml/L through foliar during active vegetative growth and reproductive stage.

#### Gluco Calbor

Calcium-Boro Gluconate (Cal. 9%, Boron 4.5%)

##### Benefits:

- ▶ Stimulate young shoot & root growth
- ▶ Increase flower, boll or fruit retention
- ▶ Improve shelf life of fresh farm produce
- ▶ Highly beneficial for flower, fruit and vegetable crops.

##### Application:

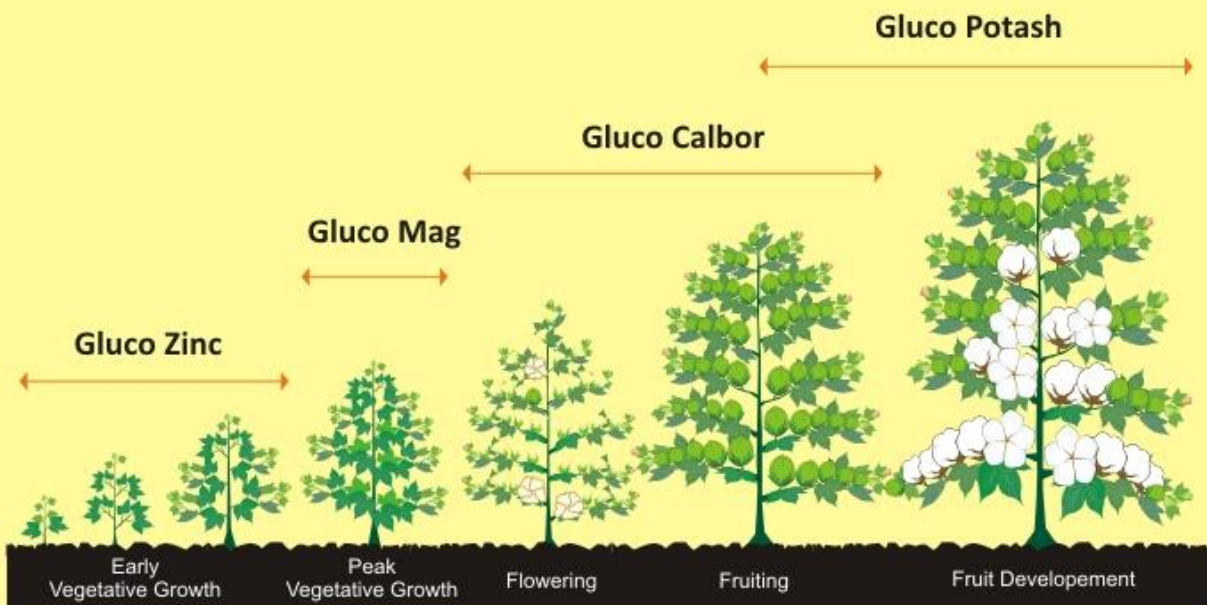
Apply @ 2-3 ml/L 2 to 3 times through foliar during active vegetative growth and fruit development stage.



## Compatibility:

SFPL R&D has undertaken several chemical compatibility and shelf life studies by incubating finished products under strict laboratory observations. Gluconates were found to be widely compatible with most of the chemical pesticides being employed in current agriculture practices. Gluconates also have a stable shelf life period of over 3 years.

## Application:



# OUR RESEARCH BASED WIDE RANGE OF PRODUCTS FOR FARMER'S PROSPERITY !



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