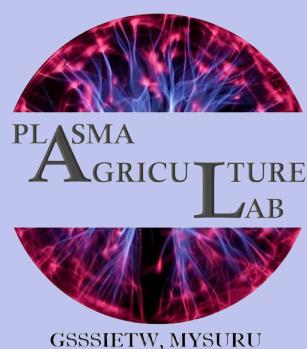




# Plasma Agriculture Laboratory

sowing the seed of innovation

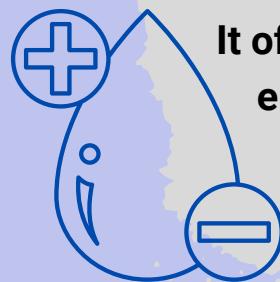


## Revolutionizing Agriculture with Plasma Technology

GSSS INSTITUTE OF ENGINEERING  
& TECHNOLOGY FOR WOMEN  
MYSURU

### Plasma

Plasma, the fourth state of matter, is an ionized gas with unique properties that enable its application in agriculture. It offers eco-friendly solutions to enhance crop yield and seed quality.



### Challenges with Untreated Seeds

- Poor germination rates.
- Increased susceptibility to pests and diseases.
- Limited resistance to environmental stressors like drought.

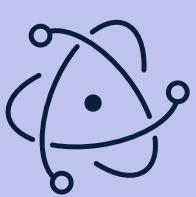


### How Plasma Enhances Seeds

- Exposure to plasma involves treating seeds with low-temperature plasma generated through electrical discharge.
- The process modifies the seed surface, improving water absorption and nutrient uptake.

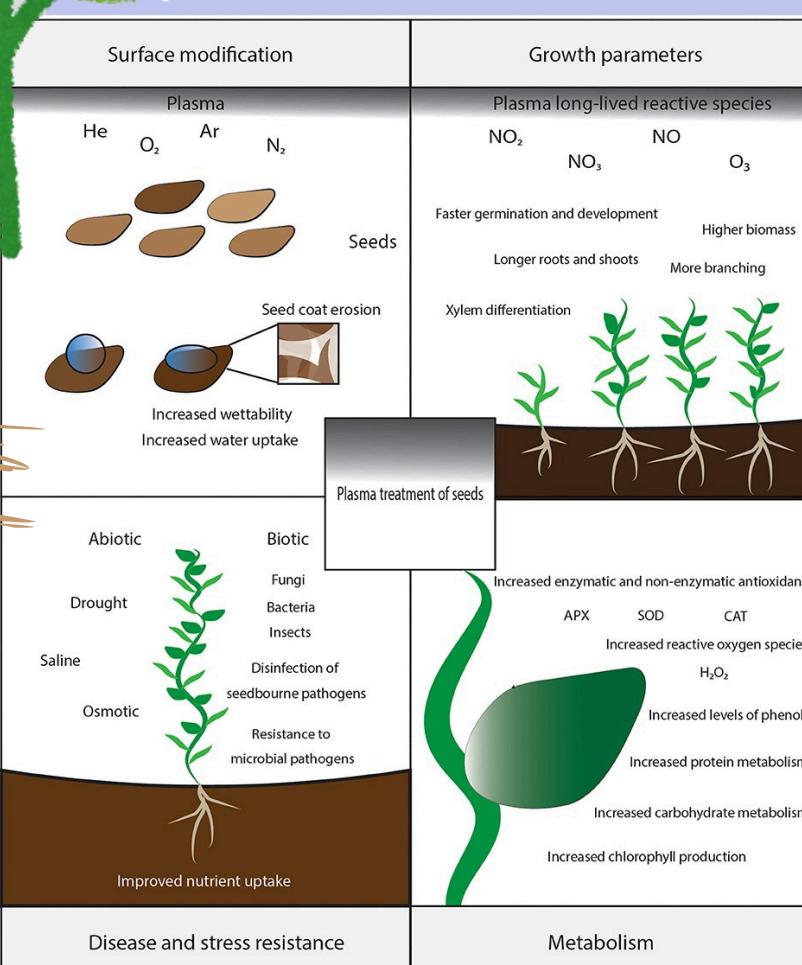
### Before Plasma Exposure

- Low germination rates.
- Reduced growth potential.
- Uneven sprouting.



### After Plasma Exposure

- Enhanced germination rates (30%-40% improvement).
- Better root and shoot development.
- Higher resistance to pests and diseases.
- Improved tolerance to drought and salinity.
- Yield increase by up to 20%.



### Plasma's Impact on Seeds

- Improved water absorption for faster sprouting.
- Enhanced seed vitality due to the activation of biological processes.
- A reduction in the need for chemical seed treatments, making it environmentally friendly.

