

Executive Summary

Agriculture in India is at an important turn to adapt biologicals & make it part of the mainstream agricultural practice. A key element is the rapid adaption of bio stimulants meant to enhance the natural potency of the plants to fight stress & help the yields reach its full potential. The plants have crucial life stages with each stage contributing to the overall health & yield of the crop. BioPrime’s bio stimulant was specifically designed to slow down the ageing to expand the fruiting stage of the plant to draw maximum output. The final product powered by secondary metabolites successfully targeted the pathways in the plants to expand the fruit development phase & helping the growers time the market for better market price.

This co-development has been done for one of the largest & diversified Indian conglomerate with major interest in agriculture.

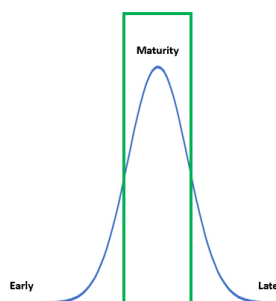
Background

The Indian bio stimulant market is growing at a rapid pace & companies in the agri-space are leaving no stone unturned to include bio stimulants in their product portfolio. The abiotic stress is responsible for around 60% loss in the crop yield & it is increasingly being evident in the Indian sub-continent with unusual rise in temperature, erratic rainfall & rising salinity in the soil.

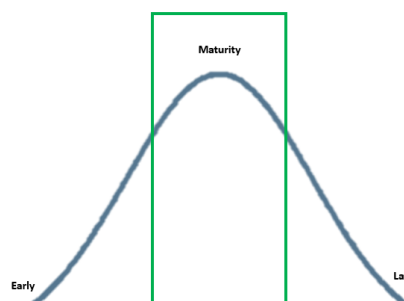
The bio stimulant market is crowded in India, however; no specific product has been developed targeting the expansion of fruiting phase to give the control of market timing & better yield.

The success criteria were stringent. The bio stimulant should be compatible with regular agricultural products like fertilizers & pesticides, delivers anti stress, fits well in the farmer economics & delivers on the key expectation of more fruiting.

Case Evaluation - The addressable challenge was to create a bio stimulant targeting the flowering stage & increasing the fruit conversion along with expanding the fruiting phase of the plant. Other key criteria for the product were to be compatible with the regular agricultural products, making it convenient for the farmers. The **R&D** ran numerous experiments keeping **the laid-out parameters of agronomical performance, compatibility & conferring anti-stress attributes to the plants** as the benchmark. This had to be designed, tested, demonstrated & put to use in a stringent timeline.



Narrow maturity period



Wider maturity period with BioPrime bio Stimulant

Proposed Solution

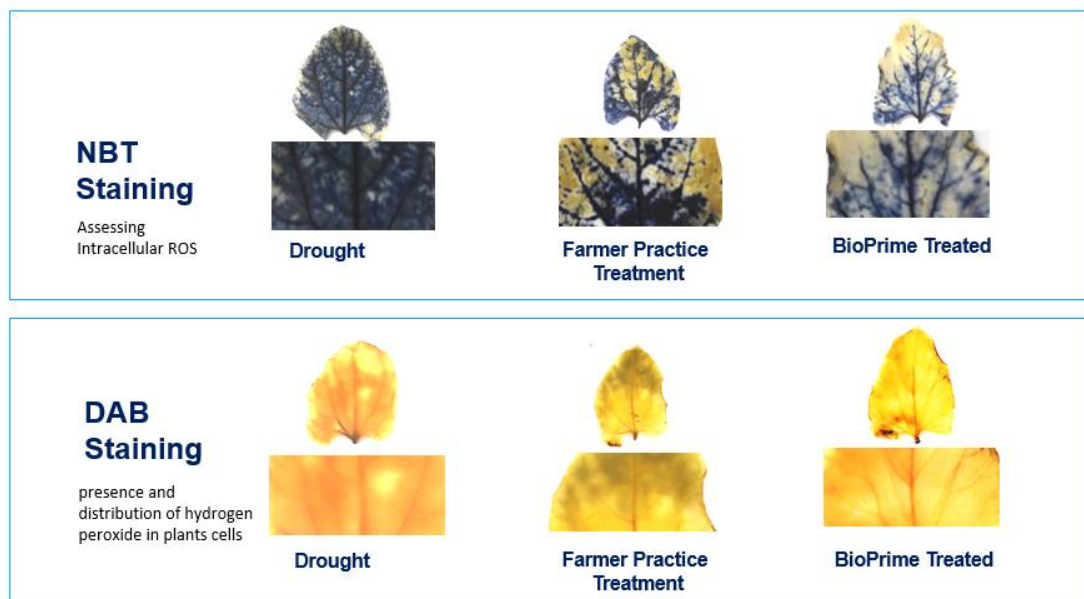
BioPrime's solution was developed on the base of green & brown seaweed extracted through the cold extraction process. This process ensures higher availability of bio molecules in the final product. This was added with an effective botanical extract screened from hundreds of leads. This unique combination was targeted towards providing stress resistance, immunity & better flower to fruit conversion.

The bio stimulant was developed to **make crops resilient towards various abiotic stress parameters like winter shock, drought conditions & heat stress**. The solution was **powered by secondary metabolites** extracted with BioPrime's patented SNIPR platform. The R&D team developed the solution by activating the essential biochemical pathway

The expectation from the final product was to boost resilience & enhance performance. And the final product delivered on the below success parameters: -

1. Anti stress - Effective against heat, drought & salinity stress.
2. Performance – Enhanced flower to fruit conversion. More pickings.
3. Stable product – Long shelf life of 3 years
4. Compatibility – Compatible with fertilizers & pesticides
5. Physical property – Clear, fluid & transparent liquid formulation

Superior Drought Resistance with BioPrime



Leaves Treated with BioPrime's Biostimulant shows lesser H₂O₂ and super oxide radical accumulation under drought stress indicating superior drought tolerance.

Conclusion - The product has been effective & has shown extraordinary bio efficacy on a variety of crops across the country. The success criteria on its chemical & physical attributes have been met.

BioPrime's Biostimulant is the first of its kind development in India powered with the properties of secondary metabolites in carefully chosen green & brown seaweed making it an exciting opportunity for more such innovations to follow to add value to the growers & the organizations.

We have a wealth of knowledge waiting to be explored.

Wealth of microbe collection. Wealth of biomolecules.

Reach out to us to discuss a partnership opportunity around our solutions.

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