

FIELD TRIAL REPORT

Trials conducted on **CORN** cultivation

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SAKARI BOOST

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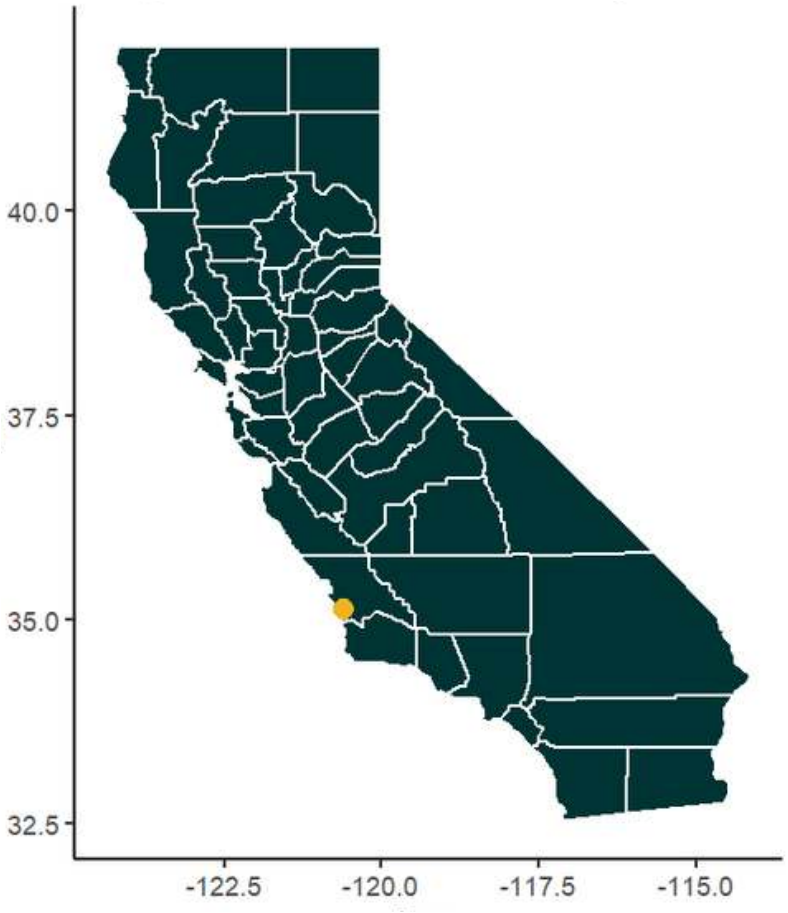
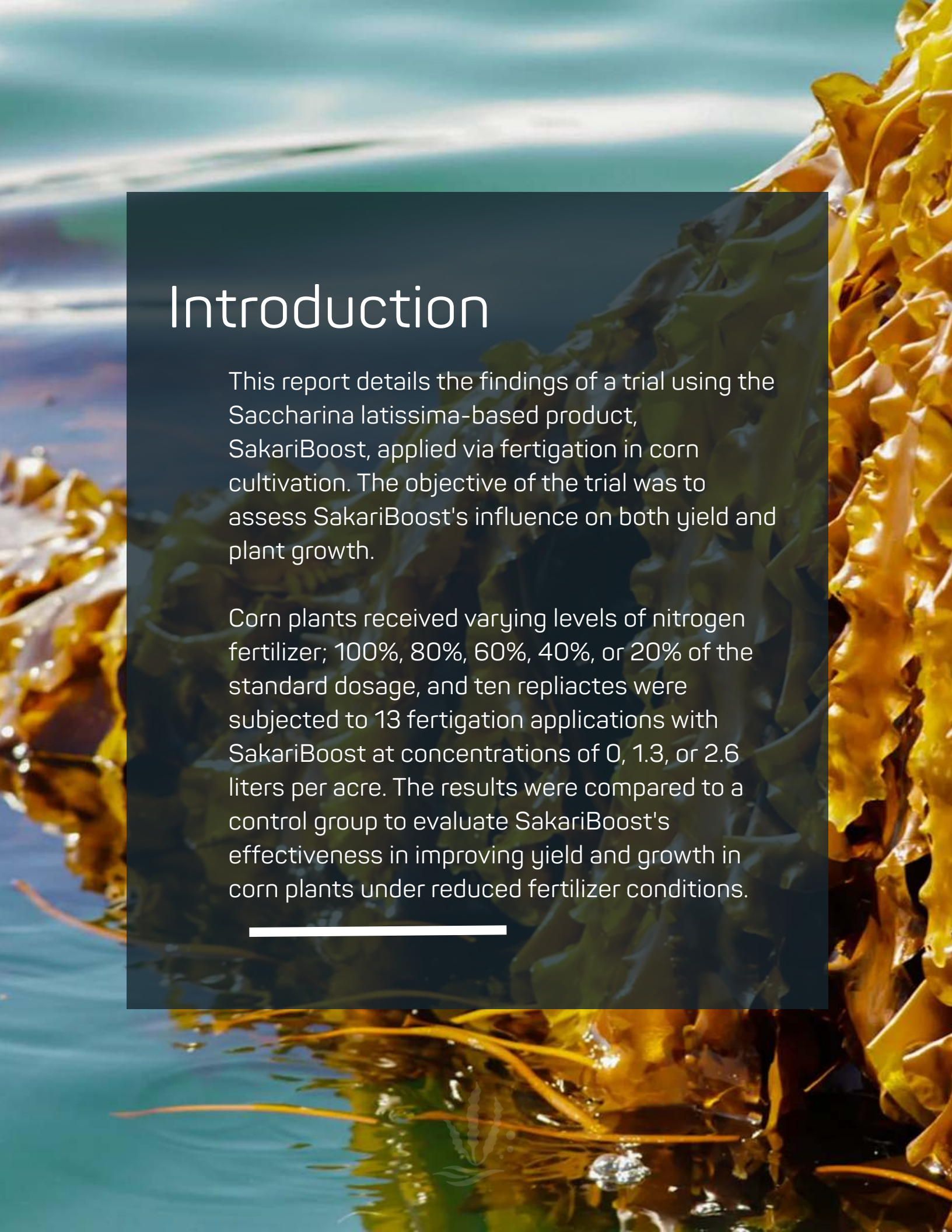
Field Test Overview

Product: SakariBoost
Crop: Corn
Season: 2026
Objective: Evaluate the effect of SakariBoost on corn yields and plant growth under nitrogen stress.

Location: Arroyo Grande, California





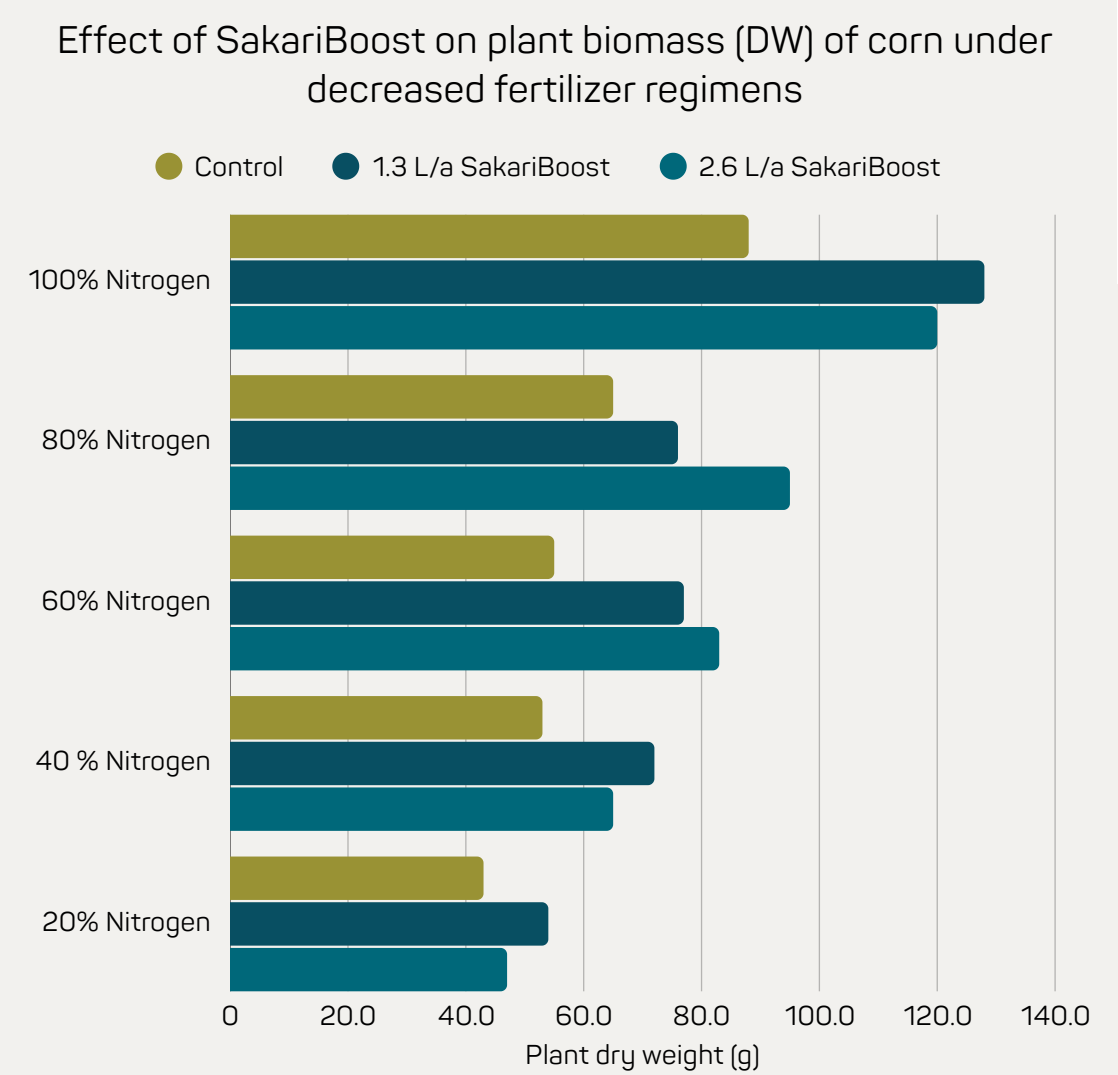
Introduction

This report details the findings of a trial using the Saccharina latissima-based product, SakariBoost, applied via fertigation in corn cultivation. The objective of the trial was to assess SakariBoost's influence on both yield and plant growth.

Corn plants received varying levels of nitrogen fertilizer; 100%, 80%, 60%, 40%, or 20% of the standard dosage, and ten repliactes were subjected to 13 fertigation applications with SakariBoost at concentrations of 0, 1.3, or 2.6 liters per acre. The results were compared to a control group to evaluate SakariBoost's effectiveness in improving yield and growth in corn plants under reduced fertilizer conditions.

Results

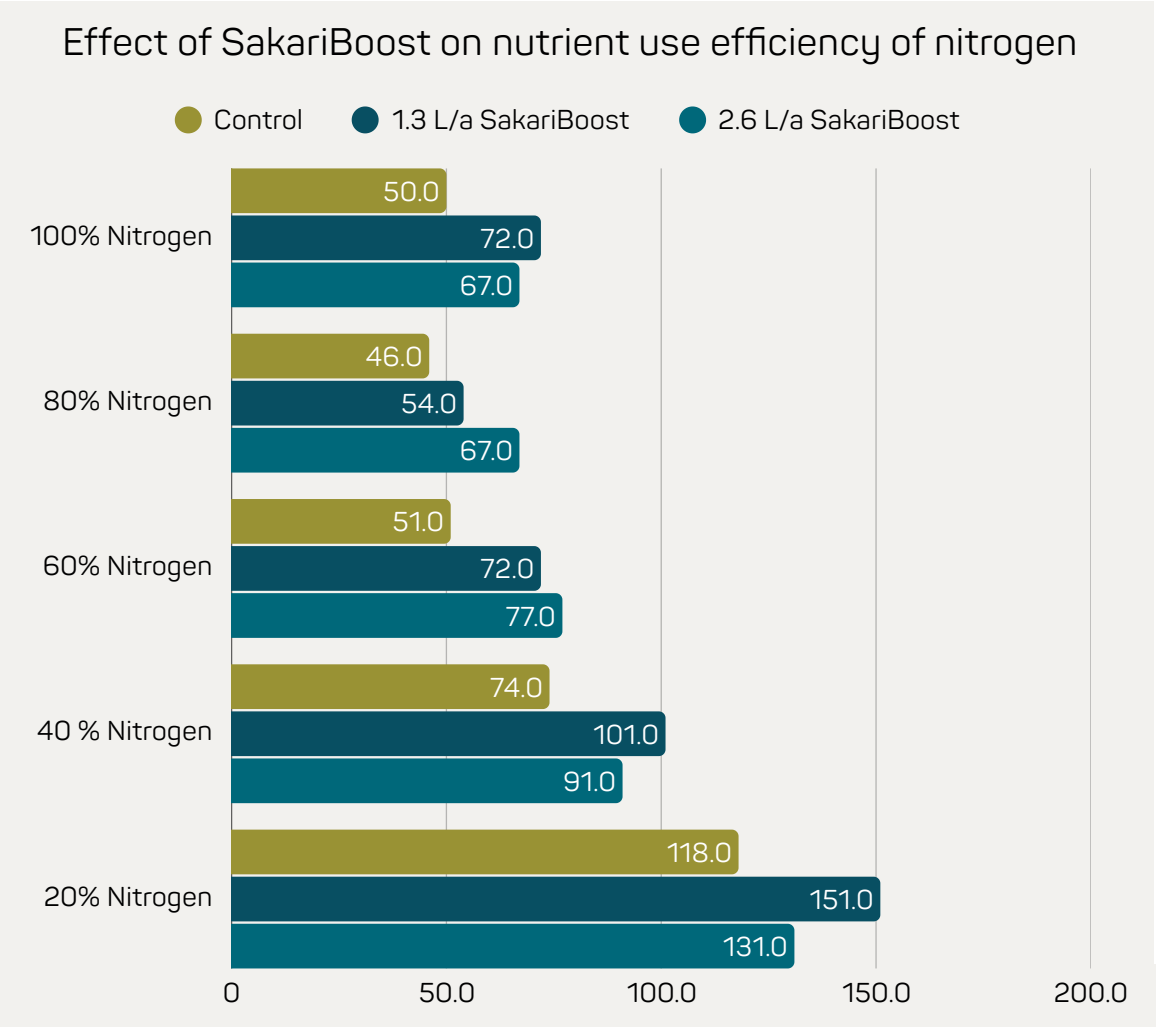
Plant biomass (dry weight)



SakariBoost increased shoot dry weight at all five nitrogen levels. The strongest response came at full fertilization, where SakariBoost at 1.3 L/acre raised median biomass by about 60% and produced the heaviest plants in the trial. Under reduced nitrogen, the effect remained strong. At 80% N, the 2.6 L/acre rate raised biomass by about 58%, beyond the untreated full-N level. At 60% N, both rates raised biomass by 32–44%, matching the untreated full-N level. Positive gains continued at 40% and 20% N, however they were not statistically significant.

Results

Nutrient use efficiency (PFP - N*)



SakariBoost increased partial factor productivity of nitrogen (PFP-N) at every nitrogen level tested. The improvement was statistically significant at 100% and 60% N for both rates, and at 80% N for the higher rate. At 100% N, PFP-N rose from 50 to 72 with SakariBoost at 1.3 L/acre (3.2 L/ha), an increase of 44%. At 60% N it rose from 51 to 77 with 2.6 L/acre (6.4 L/ha), an increase of 51%. At 40% and 20% N, SakariBoost continued to raise PFP-N by 11–36%. Both application rates performed similarly well, so the lower rate is effective.

*Partial factor productivity of nitrogen (PFP-N) is the yield harvested per unit of nitrogen fertilizer applied.

SakariBoost at 1.3 and 2.6 L/acre (3.2 and 6.4 L/ha) consistently increased both shoot biomass and nitrogen productivity across all nitrogen levels. At full fertilization, it raised PFP-N by up to 44% and biomass by about 60%, showing clear added value on top of standard nitrogen practice. Under moderate nitrogen reduction, plants given 60–80% N plus SakariBoost matched or exceeded the biomass of untreated plants at full nitrogen, while achieving up to 54% higher PFP-N. This indicates that SakariBoost can help growers reduce nitrogen fertilizer by 20–40% while maintaining or improving plant growth. Both rates were effective, making 1.3 L/acre a cost-efficient choice.

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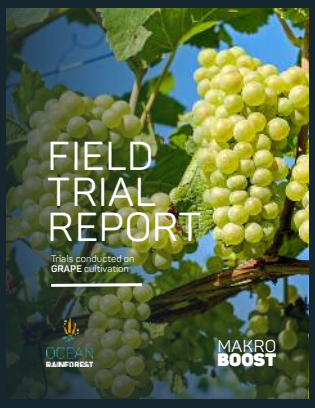





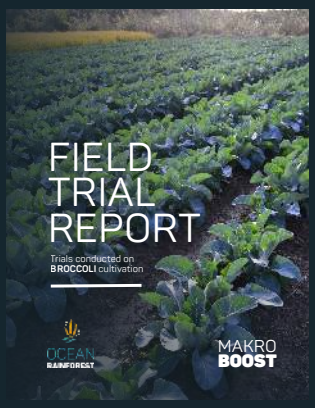





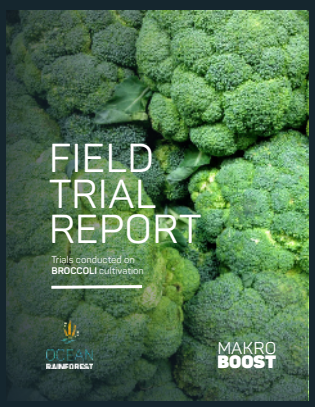







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