MULTIPLYING PROFITABILITY: DUAL IMPACT LOW SEASON OIL PALM SOLUTION

Indonesia

24-72hr Plant-Integrated Bioconversion | Zero Synthetic Inputs, Pure Bio-Catalysis

Official Website: https://www.iBioStim.com

Official Producer of 宝盛

Oil Palm Production

Indonesia and Malaysia serve as the global epicenters of oil palm cultivation, specializing in the production of Fresh Fruit Bunches (FFB) and their refinement into Crude Palm Oil (CPO), the primary feedstock for edible palm oil. Together, these nations supply **85–90% of the world's palm oil**, underpinning nearly one-third of international vegetable oil markets.

The industry's economic viability hinges on balancing two cyclical phases:

- **High season**: Characterized by optimal yields (25+ tonnes FFB/ha) and efficient extraction rates (~23% CPO/FFB)
- **Low season**: Marked by reduced output (18–20 tonnes FFB/ha) and lower extraction efficiency (~19%)

Our solution focus on uplifting low season productivity using biochemistry, supported by economics of running a profitable business.

Highlights

1. 1.87x Yield Improvement

Growers can now harvest 2.24 MT/ha of FFB, compared to existing production of 1.2 MT/ha per month under worst case scenario with everything being equal.

2. 1.25x Nutrient Density Improvement

FFB processor can now produce 20% more oil content in equivalent.

3. Combined Effects of 2.34x Value Creation

By combining 1.87x yield improvement with 1.25x nutrient density improvement, a total combined effects of 2.34x value creation is achieved per hectare oil palm.

Oil Palm Production

4. Economic Per 10,000 Hectare

Combined annual value creation attributable to 宝盛 is equivalent to a gross revenue of USD 22.5M and net profit of USD 18.5M.

Our Bio-Enzymatic Plant CPR Process

Our revolutionary approach follows a three-step process that transforms plant health from the inside out:

1. CLEANSE

A 72-hour phytochemical detoxification that removes accumulated stress compounds and prepares the plant's systems for optimal function.

2. PRIME

Vascular-system micronutrient infusion that delivers precisely calibrated nutrients directly to where they're needed most, bypassing traditional uptake limitations.

3. REGENERATE

Activation of the plant's native microbiome to achieve 1.3x nutrient density, strengthening natural defence mechanisms and enhancing growth potential.

This process is supported by our vertically integrated production facility, featuring closed-loop dual biofermentation (both aerobic and anaerobic) with 100% plant and insect extract inputs. Our 2.4-acre plant maintains a monthly production capacity of 735 metric tonnes, ensuring consistent supply for our global operators.

Oil Palm PLC, Malaysia:

"I am satisfied with 10% improvement on my balance sheet, progressively extending to 100,000 to 150,000 hectares over the next 5 years."

Activity

Plant Health

Our organic blends optimize the natural balance between plant growth and self-defense systems, creating crops that stay fresh longer and taste better – helping every type of plant reach peak performance.

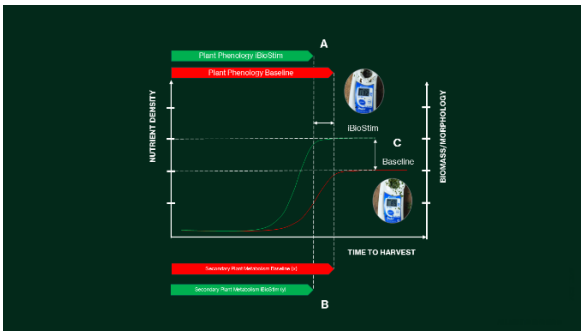


Figure 1. Comparing effects of traditional organic/conventional food production baseline against **iBioStim™** regime, showing reduced time to harvest with elevated nutrient density and biomass.

Lowering Activation Energy

Our enzyme-powered formulas work like natural spark plugs for plants. By helping fertilizers break down faster and more completely, they:

- Make nutrients 62% more usable by crops within 1-3 days
- Work equally well with any fertilizer type
- Maintain effectiveness in droughts, floods, or temperature swings

Unlike treatments relying on live microbes (which can die or change behaviour), our bioenzyme solutions deliver consistent results season after season.

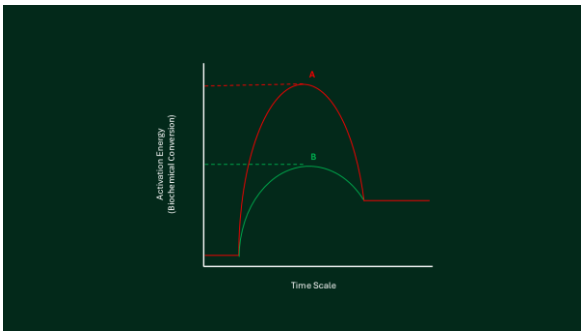


Figure 2. Comparing reduced activation energy barrier for biochemical conversion of fertilisers in an endothermic reaction on **iBioStim™** regime, giving rise to physiological modification onset within 24-72hr after first application.

Core Product Lineup

宝盛 Critical (Organic)

The only commercial grade naturally derived (non-synthetic) proprietary bioenzymes formula in ppm dose for weekly application addressing symbiosis limitation in Oil Palms. 宝盛 Critical works at the fundamental level of plant metabolism, enhancing carbon fixation and utilisation throughout the growth cycle.

Application Scope: Oil Palm **Category**: Biostimulant

Special Purpose: Drought resistance, severe precipitation recovery, cellular regeneration.

Packing Size: 1,000L IBC Tote

宝盛 Amino (Organic)

Designed to maximise the potential of 宝盛 Critical using specific L-amino acids and micro-nutrients in ppm dose, proving that small is mighty. 宝盛 Amino acts as a performance multiplier, enhancing the effectiveness of our core products while providing additional nutritional support.

Application Scope: Oil Palm **Category**: Biostimulant

Special Purpose: Support for 宝盛, severe precipitation recovery, rhizosphere activator (complete micro-nutrients replacement).

Packing Size: 1,000L IBC Tote

Core Product Lineup

宝盛 NPK (Organic)

Designed to replace synthetic chemical fertiliser for zero contamination in surface water. One of its kind plant and insects-derived organic NPK at 0.5%, 0.3% & 0.1%.宝盛 NPK provides complete nutritional support without environmental hazards associated with conventional fertilisers.

Application Scope: Oil Palm **Category**: Organic Fertiliser

Special Purpose: Plant nutrition support with 宝盛 Critical and 宝盛 Amino.

Packing Size: 1,000L IBC Tote

Field Performance

The perennial organic-synthetic dichotomy in agricultural inputs creates decision paralysis for cultivators weighing complete organic translation against incremental integration strategies.

Our hybridization protocol (100% synthetic: 1% **iBioStim™** organic) is designed to solve this challenge without completely abandoning existing systems, providing a practical bridge to a more sustainable practice for oil palm cultivation.

234%

YIELD AND NUTRIENT DENSITY PRODUCTION

Success Metrics

✓ **Control**

✓ **100% Success 宝盛 Critical**

✓ **Measurable Results**

More FFB, bigger fruit size, more female to male flowers 12 months later.

Field Performance

FFB Yield

✓ Control vs 宝盛 Critical

✓ Control vs 宝盛 Critical

✓ Control vs 宝盛 Critical

✓ Control vs 宝盛 Critical

FFB Buoyancy Test

✓ Control vs 宝盛 Critical

✓ Control vs 宝盛 Critical

Female Flower Dominance

12 months on, male flowers go into remission, with female flowers as dominant species.

Methods

A system is developed at 宝盛 for translation into commercial impact, comprised Pilot, Calibration and Forecast as follows:

1. PILOT

Comprised minimum 50 hectares at Oil Palm (OP) Density of 120 OP/ha for 12 months Critical and Amino application, twice per month.

2. Calibration

Data (12 months) obtained from Pilot Study is used for construction of physical model using mathematics.

3. Forecast

Information obtained from calibration is used to forecast yield performance, for calculation of Revenue and Net Profit in the following year.

Calculators

A total of two (2) calculators has been developed for the purpose of calculating Revenue and Net Profit arising from Calibration of field performance.

1. Calculator #1: Costing and Commercial Impact

宝盛 Low-Season Impact Dashboard

Note: Analysis limited to low-season impacts only
High-season effects not measured in current data

Yield Parameters

Low Season Duration (Months)? 12
Plantation Size (Hectares)? 100
Baseline Yield? 2.138
宝盛 Yield? 5.104

Treatment Parameters

Critical Cost (USD/L)? 15
Amino Cost (USD/L)? 15
Applications/Month? 2
Oil Palms/Ha? 120

Market Parameters

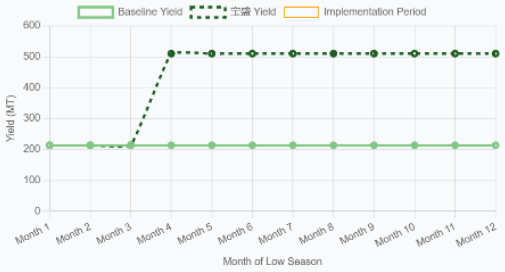
FFB Price (USD/MT)? 210
Dilution Factor? **500 (Fixed)**
Water Utility/Palm? **5L (Fixed)**

Implementation Note:
宝盛 effects begin after 3 months of application

Effective Treatment Months	Yield Increase	Total Treatment Cost	Net Profit Impact
9 (After 3-month implementation period)	+139% During effective treatment period	86,400 USD For entire low season	474,174 USD From yield increase only

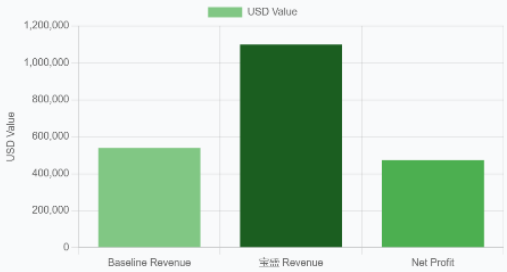
Low-Season Yield Timeline

Shows monthly yield progression during low season. 宝盛 effects begin after Month 3.



Financial Impact

Comparison of revenue with and without 宝盛 during low season.



Detailed Low-Season Analysis

Yield Comparison		Cost Breakdown		Profit Impact	
Baseline Yield:	2,565.6 MT	Monthly Cost/Ha:	72 USD	Additional Revenue:	560,574 USD
宝盛 Yield:	5,235 MT	Utility Usage/Ha/Mo:	2.4 L	Net Profit:	474,174 USD
Effective Months:	9 months	Total Low-Season Cost:	86,400 USD	ROI Multiple:	6.49x

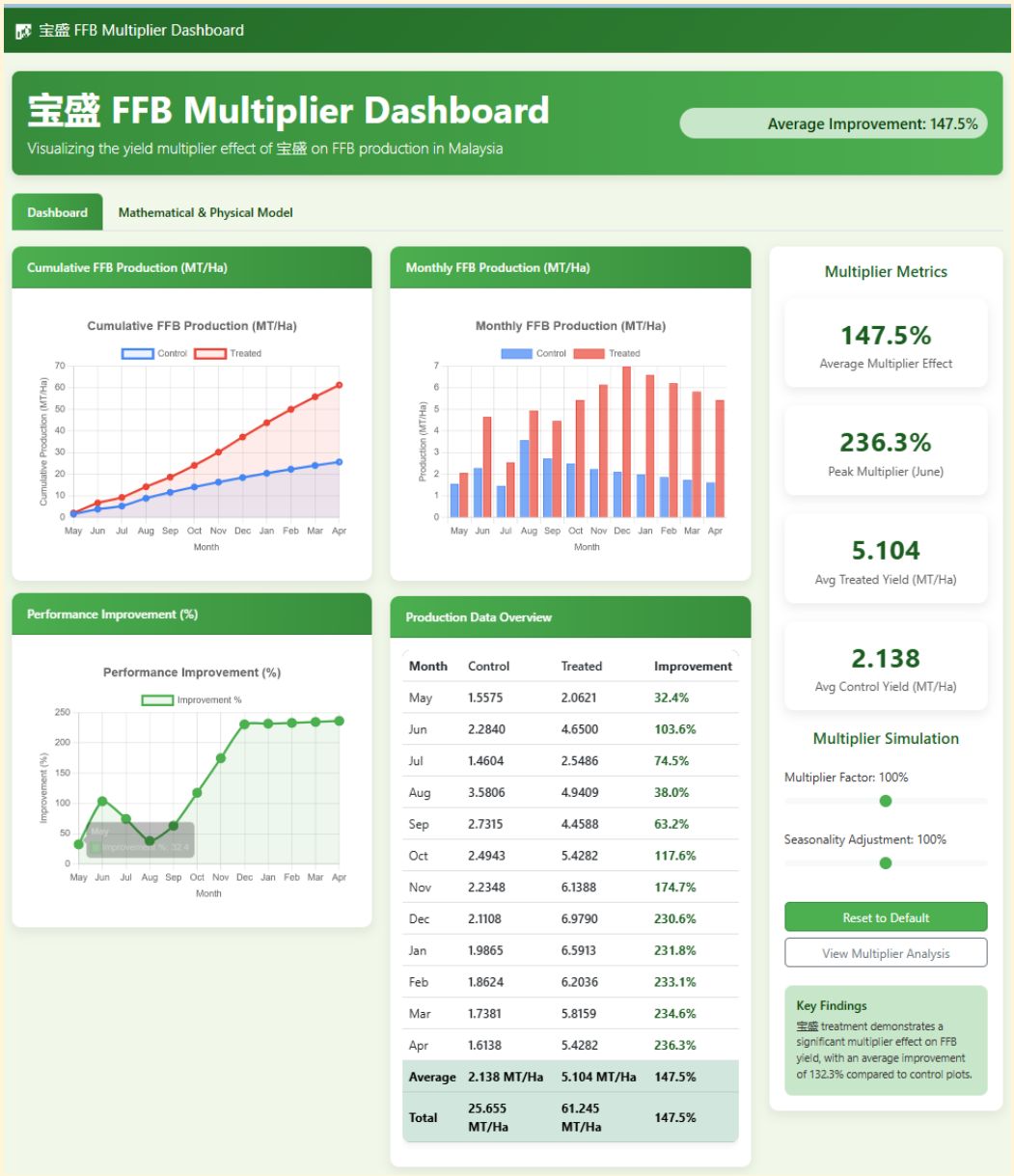
Logistics Planning

Pallet Requirements		Pallet Specifications	
Critical Required Volume:	2,880 L	Product:	Critical & Amino
Amino Required Volume:	2,880 L	Container Size:	20L Jerry Cans
Critical Pallets Needed:	3	Sets per Pallet:	48
Amino Pallets Needed:	3	Liters per Pallet:	960 L
Total Pallets:	6	Total Low-Season Volume:	5,760 L
		Actual Shipped Volume:	5,760 L

Note: Only full pallets are shipped. Actual shipped volume may exceed required volume.

Calculators

2. Calculator #2: Calibration



Important: Calibration comprised 12 months onsite data collection across minimum 50ha (100ha to 1000ha are perfect) is needed to construct a sound Mathematical and Physical Model for forecasting of following year FFB Production. Model works on a continuous feedback basis and varies from plantation to plantation. Therefore, the Model represents an Intellectual Property (IP). This IP is non-transferrable and fees apply.


JUST BETTER
Creating Profitability Across The Entire Value Chain
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