

ELECTRONIC SOIL NITROGEN ANALYZER (ESNA)

An Innovative Device for Smart and Sustainable Agriculture

VISION

To provide Smart Technology for Farmers' Profitability and Sustainable Agriculture.

THE PROBLEM

- Declining soil fertility and poor soil texture as attributed to unregulated usage of chemical fertilizers
- Low productivity level of largely 1.2 million ha rice fields of about one half of the national rice hectares.
- Lack of electronic-based soil test kit that will analyse the nitrogen content and recommendation for rice and other crops

OUR SOLUTION

Development of Electronic Soil Nitrogen Analyser (ESNA) an electronic tool comprising a hand held instrument, probe, and test kit consumables. Its' novel device that analyses the nitrogen based from nitrate concentration of soil with the use of nitrate ion-selective electrode. The nitrate concentration evaluated by the sensor is converted into desired output of nitrogen content of soil in- terms of parts per million (ppm). The nitrogen output is displayed in the LCD of the device.

THE BENEFITS

- Optimisation of the application of nitrate fertilisers
- Improvement of soil conditions, Ph level and fertility
- Reduction of the level and cost of chemical fertilizers
- Improvement of growth, yield performance and productivity of the crops
- Intervention to national big data soil nitrogen mapping program

COMPETITIVE ADVANTAGES

Reliable, effective, cost-efficient and user-friendly

COMMERCIAL OPPORTUNITY

Projected Cost Benefit Analysis For Year 1

I. Gross Sales : Php1,050,000.00

Tester and Service Support:

25 units @Php40,000

Nitrate Concentration/Reagent

Solution: 50 @Php1,000

Investment - Php5,000,000

Cash flow - Php4,865,740

Cummulative - Php4,865,740

II. Production Cost: Php1,187,000

Total Variable Cost:

Php690,000.00

Admin and Marketing Cost:

Php497,000

III. Gross profit: Php360,000.00

Profit before Tax - 137,000

Tax, 2%

Profit after Tax -134,260

IV. DCF VALUATION (Inc equity)

Taxes, 2%

Net Financial Contribution:

4,865,740

WACC, 20%

Discount Factor, 1.00

PV, 4,865,740

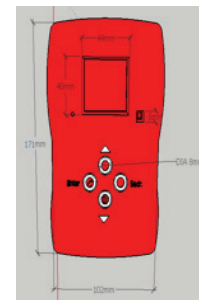
5 Year NPV, 13,363,996

Terminal Growth Value, 20%

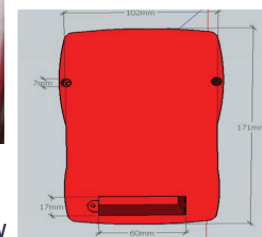
PV of Terminal Value, 15,180,545

Total NPV= 29,180,545

THE PRODUCT



TOP VIEW

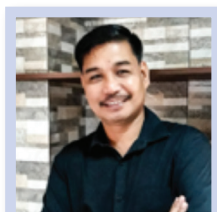


BOTTOM VIEW

WHAT WE NEED

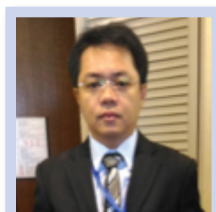
We are looking for business partners and investors who will extend financial support to the manufacturing and marketing of the products.

Contact us:



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