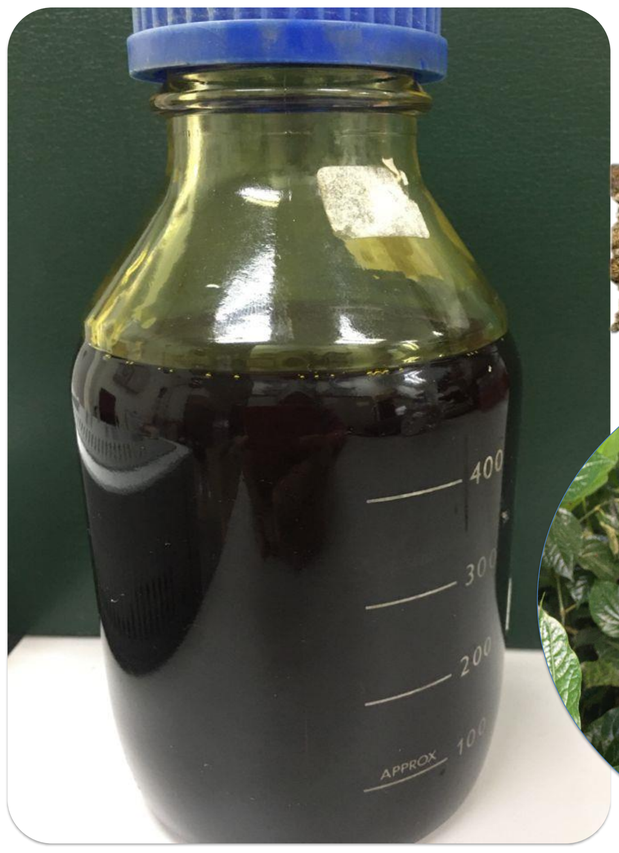
Plant-based Extract Formulation
For Controlling Brown Planthopper (BPH) In Rice Field
PI 2021002993



TECHNOLOGY

Bioinsecticide nano-emulsion composition comprising of plant-based active ingredients, surfactant and carrier.

CURRENT ISSUES

- The serious infestation and damage caused by brown planthopper (BPH) lower the yield of rice production.
- BPH is developing resistance against chemical pesticide.
- So many approach have been done to control BPH such as the use of botanical pesticide, pesticide that use plant derivatives that contain toxic substance.

INVENTIVENESS & NOVELTY

- This invention relates to plant-based bioinsecticide composition comprising: saponin; azadiractin; surfactant; and carrier.
- The saponin is extracted from *Piper sarmentosum*; and the azadiractin is extracted from *Azadiracta indica*.
- The plant-based bioinsecticide composition of the present invention shows synergistic effect against BPH.

USEFULNESS & APPLICATION

Direct application to paddy plants in water-mix solution to controls BPH infestation.

IMPACT OF THE PRODUCT

Safe to mammals, biodegradable, renewable and does not cause environmental pollution and not as harmful and environmental polluted as the chemical insecticide.

MARKET POTENTIAL

Paddy plantation

- To control BPH infestation in a safer and environmental friendly approach.

TRL :4- Lab validation

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