

TECHNICAL FACTSHEET

BIOPESTICIDE DERIVED FROM FRESH NEEM LEAVES

Neem-based biopesticide incorporates a natural substance derived from fresh neem leaves (*Azadirachta indica*). It functions as a natural insecticide, fungicide, and repellent, all while safeguarding human health and the environment.

The active ingredient, azadirachtin, interferes with the growth, reproduction, and feeding of harmful insects while leaving beneficial organisms unharmed.

Simple to manufacture locally and requiring no costly equipment, this technology is readily available to women and youth. The neem-derived biopesticide is effective against a broad spectrum of pests, including aphids, caterpillars, stem borers, whiteflies, and fruit flies.

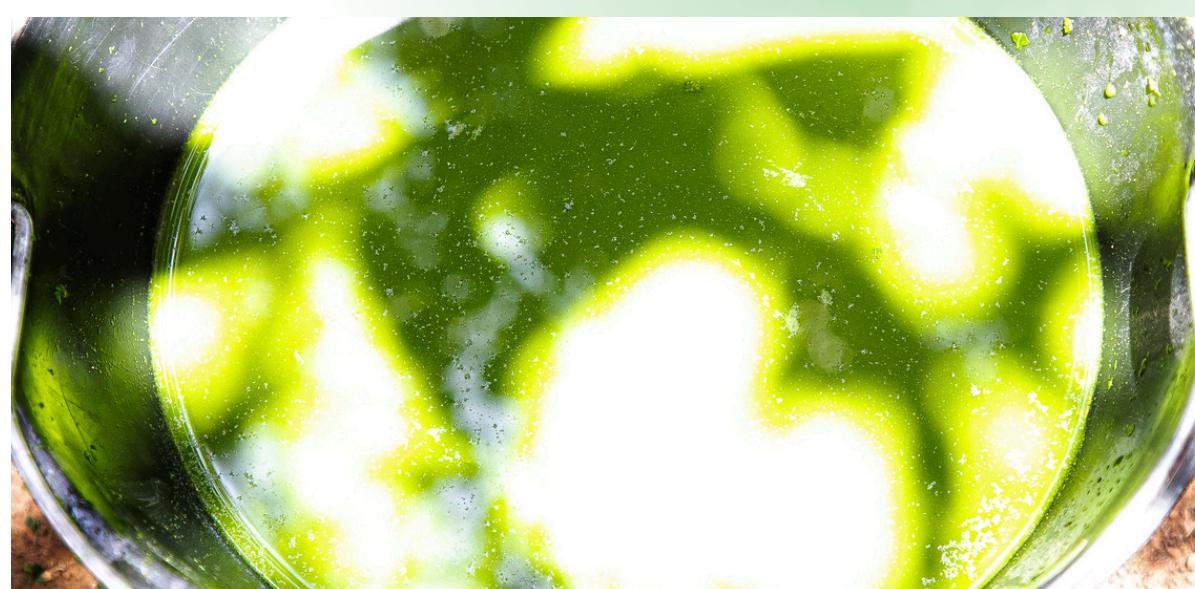
Application of neem-based biopesticide contributes to healthy and sustainable agricultural production while mitigating the impacts of crop pests and diseases and safeguarding biodiversity, the environment, and the well-being of farmers.

PHASE 1: NECESSARY MATERIALS



PHASE 2: PREPARATION AND APPLICATION PROCESS

- ✓ Measure 1.5 kg (3 bundles) of fresh young leaves.
- ✓ Crush the leaves in a mortar until they become a smooth paste.
- ✓ Transfer the resulting fine paste into a bucket.
- ✓ Incorporate 5 liters of water into the crushed material and blend thoroughly.
- ✓ Crush some Marseille soap and incorporate 10 g, or 2 pinches (approximately three fingers' worth), of the soap particles into the crushed neem leaves while mixing.
- ✓ Cover the mixture and allow it to macerate for 24 hours.
- ✓ After 24 hours, mix the combination using both hands or a stick.
- ✓ Strain the mixture to acquire the neem-based solution.
- ✓ Transfer the resulting filtrate into a spray bottle.



PHASE 3: METHOD OF APPLICATION AND PRECAUTIONS

- ✓ Use gloves and refrain from touching eyes.
- ✓ Utilize 5 liters of filtrate for every 250 m².
- ✓ Apply the spray in the early morning or late afternoon.
- ✓ Avoid application during the flowering stage.
- ✓ Keep the solution in a shaded area for a duration not to exceed 2-3 days.

SUGGESTIONS FOR SUCCESSFUL EXECUTION

- ✓ Arrange hands-on training sessions for producers, particularly women and youth, focusing on preparation, storage, and safe use of neem-based biopesticides.
- ✓ Incorporate biopesticide preparation into farmer field schools, demonstration plots, and training modules for extension agents.
- ✓ Create visual and audio educational resources (posters, videos, radio programs) in local languages to promote the adoption and correct usage of the product.



REFERENCES

Cascade training report for technical agents on Integrated Soil Fertility Management as part of the Soil Values program's field activities in Burkina Faso, Mali, Niger, and Northern Nigeria, June 2025.



Kingdom of the Netherlands



Developing Agriculture from the Ground Up



WAGENINGEN
UNIVERSITY & RESEARCH



Sustainably Growing
Africa's Food Systems



Transforming African Agriculture



International Water
Management Institute



World Soil Information

