



MY HANDBOOK: ORGANIC FARMING

Ethiopia

Ines Bächinger



GREEN
FLOWER
FOUNDATION



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MY HANDBOOK: ORGANIC FARMING

Ethiopia

The Green Flower Foundation (GFF) is a non-profit organisation based in Geneva, Switzerland, and operates in Ethiopia.

Our mission is to sensitise the young generation on the ecological and economic benefits of organic agriculture and provide them with opportunities to gain professional and entrepreneurial skills in order to build a better future.

The Green Flower Foundation's approach is based on three pillars: we facilitate effective vocational training programmes, promote organic farming, and develop skills and an entrepreneurship mindset.

This handbook, has been created by the Green Flower Foundation, to provide some guidance to small holder farmers in Ethiopia. It aims to provide practical and sustainable solutions to enhance organic agriculture, environmental conservation and a healthier lifestyle.

By the same token, containing some effective ways of handling pests and diseases, preparing fertilizers , and finding expert ways of crop rotation and management in the context of local organic production.



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Biopesticide Recipes

Recipe 01: Ginger-Garlic-Chili-Onion Extract



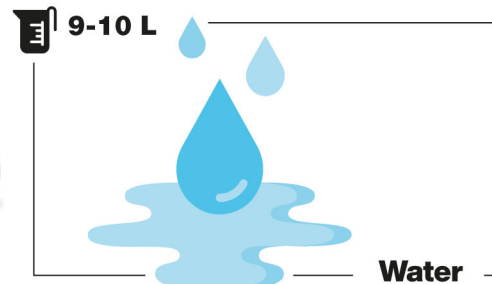
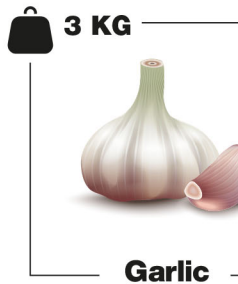
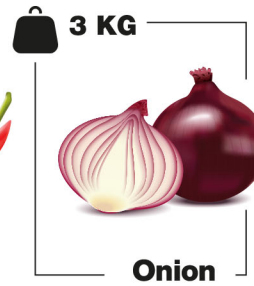
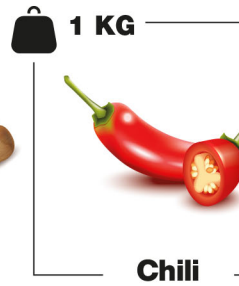
Ginger-Garlic-Chili-Onion-Extract

SOLUTIONS: CAN BE USED AGAINST

* refer list of Pests and diseases

- Insects (*aphids, whiteflies, mites, caterpillars, cutworms, thrips, etc.*)
- Fungal Infections (*Powdery Mildew*)

INGREDIENTS



MATERIAL + TOOLS



PREPARATIONS

■ Step 01

Grind all ingredients and put them in a bucket. You can also separate each ingredient in a different bucket.



■ Step 02

1 KG = 1 L

Add water to bucket. If you have 1 kg of ingredients, add 1L of water.



■ Step 03


Mix well.



■ Step 04

Close bucket(s) with cover.



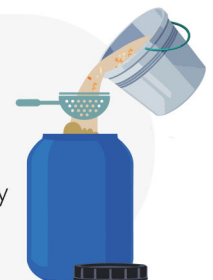
■ Step 05

Maceration (cold extraction) can last min 24 hours to maximum 2 weeks. Fermentation happens during this process. Make sure it's in a dry and cool room. If the buckets start to fill up with air, you can open the cover and let the air out then close it back.



■ Step 06

After maceration, sieve the solution into a clean container and close properly



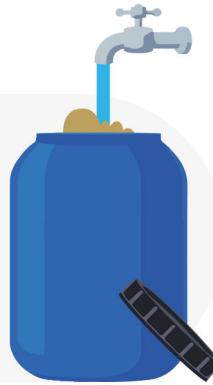


APPLICATION

Dilution

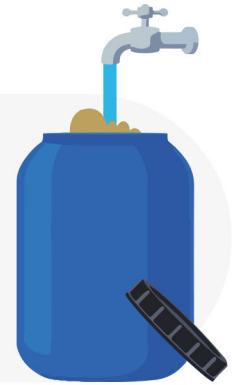
First 2 Weeks
60-100ml of Extract
into 20L Water

When the product is fresh
(first 2 weeks): 60-100ml /20L
water

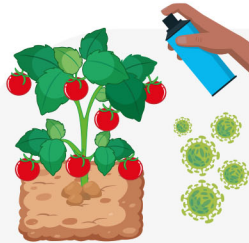


After First 2 Weeks
250-350ml of Extract
into 20L Water

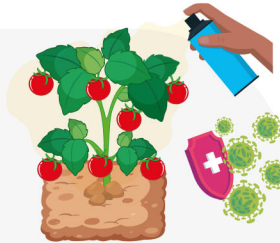
After the first 2 weeks: use
250ml-350ml/20L of water



Spraying



When there's **an outbreak** spray **1 time per week**.



For **preventive measures**, spray
Once every **2-3 weeks**.



Spray this solution only when there isn't direct
sunlight on crops, after sundown or late after-
noon for example. This is to avoid burning
plants.

Practical Tips

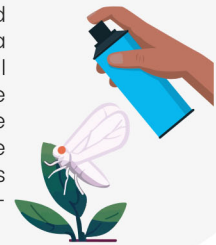


For plants with waxy
cuticle (cabbage leaves),
add vegetable oil or
natural soap to make
solution stick onto leaves

Waxy Cuticle Plant



For short lifespan cycle insects,
such as white flies, you should
spray every 2-3 days for a
couple of weeks. This is to kill
larvae and adults regularly. The
eggs aren't affected by the
solution, so spraying on the
newly hatching larvae is
important to keep their popu-
lation low.



For Soft Skin Insects,
such as aphids and whiteflies,

The dilution mentioned previously is enough.

For insects with tougher outer skin,

It is better to have a more concentrated solution

If possible, it is recommended to alternate biopesticide products. For example, after the ginger-garlic-chili-onion solution, alternate with Nimbecidine (neem oil based biopesticide) or others, to avoid adaptation/resistance of pests.

STORAGE

Store in a cool dry place, away from sunlight. Keep the solution in a clean, well-sealed container. The solution can be stored for a maximum of 3 months in the right conditions.

**Maximum:
3-Months**



 **Recipe 02: False Pepper Tree Extract** (*Schinus Molle*)



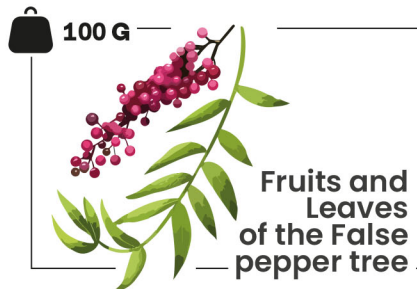
False Pepper Tree Extract

SOLUTIONS: CAN BE USED AGAINST

* refer list of Pests and diseases

→ **Insects:** Aphids, thrips, moths, stalk/stem borers, flies, storage pests; cockroach, mealworms, beetles, weevils.

INGREDIENTS

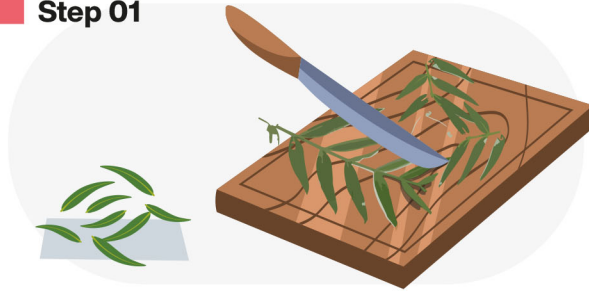


MATERIAL + TOOLS



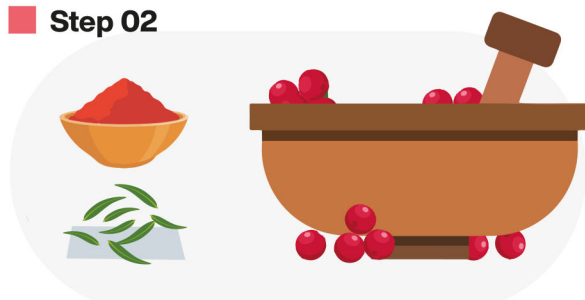
PREPARATIONS

Step 01



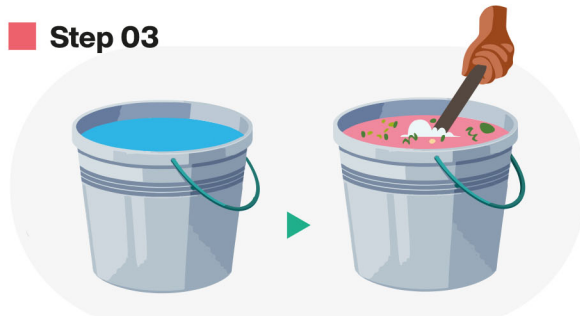
Chop leaves and set them on sheets to dry for about **a week**.

Step 02



Grind or crush the peppertree seeds and dry them with the leaves.

Step 03



Mix 100g of leaves and fruits and 1L water in the bucket. Mix well.

Step 04



Cover the bucket. Let the mixture macerate for 24-48 hours.

Step 05



Separate the liquid from the solid parts with the sieve. Add in the container and seal well.

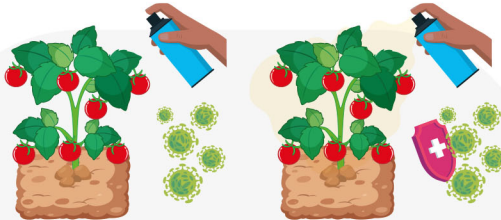
APPLICATION

Dilution



Before use, mix 1 part Schinus molle extract with 3 parts water

Spraying



Prevent: Spray once a week.

Treat: Spray every 2 weeks.

Spray infested plants' leaves and stems. Test solution on some plants first. If wilting happens, dilute the solution with more water.

Practical Tips



You can spray the extract on weeds to control and inhibit their growth and emergence.



Fresh Mix: You can also use the fresh cut leaves as repellent against storage insects, by adding the leaves in the same container as the grains you want to store.

STORAGE

Store: in a cool dry place, away from sunlight. Keep the solution in a clean, well-sealed container. The solution can be stored for a maximum of 3 months in the right conditions.

