



ORGANIC FERTILIZER



TRAINING ON MAKING ORGANIC FERTILIZERS FOR PAPUA BERSATU GROUPS (PAPUAN SMALL-SCALE FARMER IN SANGGASE VILLAGE)

A group of 10 native Papuan farmers received training on making organic fertilizer. The training was carried out for two days, from 12 to 13 January 2024. This training is deemed necessary to increase knowledge about making organic fertilizer. The farmers were given practical materials from the Dahetok Milah Lestari Foundation and materials and trainers for making organic fertilizer. Organic fertilizer has many benefits when applied to agricultural land. The emphasis on continuous and sustainable use of organic fertilizer will provide advantages and benefits for long-term use.

- Organic fertilizer can mobilize or bridge nutrients in the soil to form ion particles that are easily absorbed by plant roots.
- Organic fertilizer plays a role in slowly and continuously releasing soil nutrients to help prevent an explosion in the nutrient supply, which can cause plants to become poisoned.
- Organic fertilizer helps maintain soil moisture and reduces the pressure or tension of the soil structure on plant roots. It can also improve soil structure in the sense that the composition of particles in the soil is more stable and tends to increase because soil structure plays a significant role in the movement of water and air particles, the activity of beneficial microorganisms in the soil, root growth, and seed germination.



- Organic fertilizer helps prevent erosion of the top layer of soil, which contains many nutrients.
- Organic fertilizer is also vital in maintaining soil fertility, which is already excessively fertilized with inorganic/chemical fertilizers. Organic fertilizer plays a positive role in preventing widespread loss of dissolved Nitrogen and Phosphorus nutrients in the soil. It is available in abundance and easy to obtain.

HERE IS A SIMPLE GUIDE ON HOW TO MAKE ORGANIC FERTILIZER FOR PAPUAN SMALL-SCALE FARMERS:

- **Compost Preparation:** Collect organic waste materials such as kitchen scraps, crop residues, leaves, and animal manure. Layer the materials in a compost bin or pile, ensuring a good mix of greens (nitrogen-rich materials) and browns (carbon-rich materials). Turn the compost regularly to aerate it and promote decomposition. Keep the pile moist but not waterlogged.



- **Addition of Microorganisms:** To speed up the composting process and improve the quality of the organic fertilizer, consider adding effective microorganisms (EM), such as compost accelerators or biofertilizers.



- **Fermentation:** The compost will ferment for several weeks or months, depending on the climate and composting conditions. The compost is ready when it turns dark, crumbly, and has an earthy smell.





- **Screening and Storage:** Screen the finished compost to remove large particles and ensure a fine texture suitable for use as fertilizer. Store the organic fertilizer in a dry, covered area to protect it from moisture and sunlight. Use airtight containers or bags for storage.

- **Application:** Before planting, apply the organic fertilizer to the soil by spreading it evenly and mixing it into the topsoil. For ongoing plant nutrition, top-dress the soil periodically with organic fertilizer or use it for composting tea for foliar feeding.



- **Monitoring and Adjustments:** Monitor the effects of the organic fertilizer on plant growth and soil health. Adjust the application rates based on crop requirements and soil testing results.



THE FINAL PRODUCT OF ORGANIC FERTILIZER