

Title: Concentrated plant liquid manure

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Summary

Concentrated plant liquid manure is easy to make and store. It supplies plants with nutrients which as well manage pest and diseases in crops.

Description

Plant liquid manure is made from plants rich in both micro and macro nutrients, such plants includes Russian confrey, *Lantana camara*, Pumpkin leaves, *Calliandra*, Pumpkin leaves, *Tethonia*, Wandering Jew and others with hairy skin and those rich in silicon.

Figure 1. Farmers chop materials for making plant liquid manure



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1. Making plant tea

Plant Materials rich with nutrients are chopped down into small pieces as seen above.

1.1 Packing materials in a drum

Chopping is done to increase the surface area.

The chopped materials with increased surface area are put in a drum as seen below. Currently, women are cutting using hands but as they progress will start using grass cutter which is faster. The smaller the pieces, the faster will be the rate of decomposition to release nutrients in water. All vegetables, which can easily decompose, can be included in making plant liquid manure.

Figure 2. Ladies putting materials in the drum



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1.2 Adding ash

Wood ash is added to chopped materials as seen in the figure 3. Ash is added to soften the materials and add minerals. The materials will decompose slowly releasing concentrated plant tea in the container as seen in figure 4.

Figure 3. Ladies adding wood ash to chopped materials



Figure below shows a drum where decomposition of materials takes place, and the container collects the concentrated plant liquid manure from the drum.

Figure 4. A drum where decomposition of materials takes place



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2. Dilution

The concentrated plant tea is diluted in ratio of 1:30 that is to say one litre of concentrated plant tea add 30 liters of water.

2.1 Application

After diluting, the plant tea is applied around the root zone as seen in figure 5. The application depends on the season, if it is dry season, farmers can apply it twice a week, but if it is a rainy season, farmers can apply once. Application should be done in the evening to increase the nutrient up take by plants without losing them through evapotranspiration, which occurs during hot hours of the day. **Figure 5. Applying plant tea to organically grown tomatoes and kale**



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2.2 Products from plant liquid manure

Maize and vegetables where plant liquid manure has been used in western Uganda.

Figure 6. Maize and vegetables where plant tea is being applied



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Pineapples and kale where plant tea is being used.

Figure 7. Pineapples and kale grown using plant liquid manure



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Cabbage and pepper planted using plant liquid manure.

Figure 8. Cabbage and sweet paper



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affordable raw materials and the practice is cost-effective.