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# LIQUID FERTILIZER.

# USING HOME WASTE! {BEST FROM WASTE}

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## ABSTRACT

This paper describes method for manufacturing homemade fertilizer using the household kitchen wastes cow dung and cow urine. The fertilizer so made will be affordable and also help in controlling the biodegradable house hold waste.

The basic requirement for the manufacturing of this fertilizer is biodegradable kitchen material which is actually considered as waste.

Using this so called "waste" we tried our level best to generate commercially acceptable fertilizer. The high nutrition value of organic bio products enhances the quality of the soil.

Being liquid it will spread into the soil at a faster rate and no special time will be needed for spreading this type of fertilizer as it can be sprayed with water.

***Keywords: Biodegradable, household kitchen wastes, nutrition value.***

## I .INTRODUCTION

Management techniques of agricultural production are nowadays focused on a greater commitment to environmental sustainability. On this way, organic agriculture, accepted by the EU and the FAO as an alternative system to conventional agriculture, appears to be an environmentally friendly growing system since mineral fertilizers abuse and misuse are responsible for health problems and environmental pollution . It has been claimed that organic agriculture is the fastest growing agriculture in the world. In the decade from 2001 to 2011, the total worldwide organic agricultural hectares (ha) grew by 135% , which equates to an 8.9% per annum compound growth over the decade. Ecological surface in Spain was 1845 103 ha in 2011, representing an annual increase of 11.76% during the last decade, being positioned as the first country of the EU in number of ha in organic farming.

## II .CONCEPT

To use the waste to generate a special substance that is liquid fertilizer which can replace maximum amount of chemicals.

The basic concept derived from the backup of this project is just to give pollution less alternative with maximum number of advantages.

One of them is that the fertilizer made is in liquid state and thus can spread earlier as compared to solid fertilizers used now a day.

## III .PROCEDURE

1. Take vegetable waste and fruit peels and grind it in a mixer.
2. Add cow dung and urine to this mixture.

3. **Add sufficient water in it and mix it well.**

4. **Let it sit for 2 weeks in open air.**

5. After filtering the waste, we obtain liquid organic fertilizer.

## IV. APPLICATIONS & ADVANTAGES.

1) One of the most important benefits of liquid organic fertilizer is that it is 100% natural. It is a liquid so it can be sprayed on over areas using various different types of machinery. Liquid organic fertilizer is known to boost unhealthy gardens which have been affected by dry weather conditions. Within 6 weeks of using, green will start to appear and your garden will be back on its way to beauty and greenery.

2) Another one of the important benefits of this product is that it is able to retain large amounts of water and slowly feed it off the soil, plants and trees which surround it. As a result of this less watering is required. Liquid organic fertilizer can hold water for up to 2 weeks so in some cases watering does not need to be done in this time. Some of the other benefits in which liquid organic fertilizer offers include:

i. Increases crop yields
ii. Environmentally safe
iii. Not manure based and therefore does not have a strong smell
iv. No Chemical run-off
v. Increases root development on plants
vi. Delays the aging process of leaves
vii. Increases resistance to plant disease and insects
viii. Increases the plants nutrient uptake.

## V.CONCLUSION

Liquid organic fertilizer obtained from maize residues (vegetal-based) and faeces cow dung and urine (animal-based) promoted biomass production and nutrient concentration in citrus plants. Organic fertilizer also resulted in an increase of soil organic matter. Moreover, organic fertilization positively affected the carbohydrate content. Plant fed with animal-based fertilizer, due to intrinsic composition, displayed a better biomass development and mineral nutrition.

The presented data support the idea that liquid organic fertilizers can be successfully used as a substitute of mineral fertilizers in citrus trees nutrient management under drip irrigation, since they enhance soil chemical fertility, prevent excessive nitrate-N concentration, promote plant growth and C fixation in the plant. Moreover, these fertilizers would allow not only to reduce the use of chemicals, but also to re-use crop residues and animal manure, conferring them an added value. Nevertheless, further studies should be addressed in order to evaluate these results in field conditions.

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