Eastern and Southern Africa
Small Scale Farmers' Forum

ESAFF - UGANDA

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# HUMAN PEE IS LIQUID GOLD:

## A SMALL-SCALE FARMERS' GUIDE ON USING HUMAN URINE AS A FERTILIZER AND PESTICIDE

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## BACKGROUND

In sustainable agricultural methods, human urine has drawn interest as a possible organic fertilizer and insecticide. When utilized properly in agricultural settings, human urine has various advantages, despite the fact that the idea may initially cause mistrust. Human urine is a valuable source of different nutrients that have been used since ancient times to enhance the growth of plants, notably leafy vegetables and is universally available at little-to-no cost.

Human urine is a valuable, yet underestimated and underutilized, resource for plant fertilization and pesticide control that has been used in agriculture since ancient times, not least in intensive farming systems in various parts of Asia.

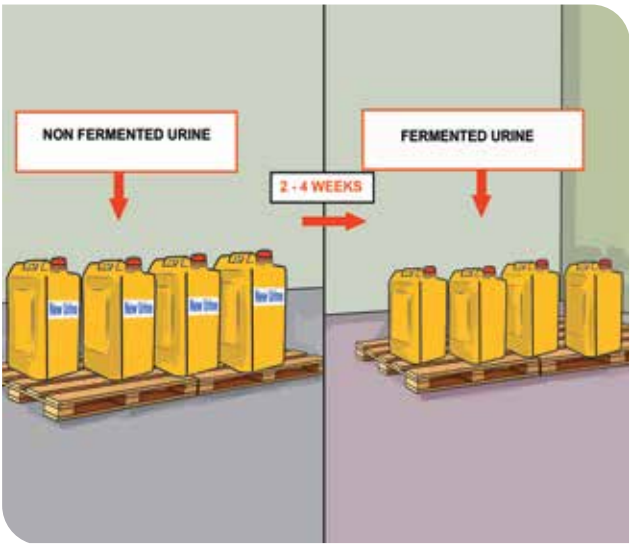
# STEPS FOR THE USE OF HUMAN URINE AS A FERTILIZER AND PESTICIDE

## 1. Collection of Human Urine

The farmer collects urine from his household members and also from his or her communities to get adequate quantities required for use in the fields. Collect urine in a clean container. Buckets, jerry cans, drums, or other containers can be used for this exercise. Ideally, use fresh urine, as it has a higher nitrogen content and fewer pathogens.

## 2. Fermentation of Urine

Allow the urine to ferment or age for a few weeks (2-6 weeks) in a covered container. Fermentation of urine will break down the organic compounds in urine into nutrients that plant roots can absorb to support growth. This process can reduce pathogen levels and ammonia concentration, making it safer for garden use. The fermentation process must happen without direct sunlight to the urine to avoid volatilization of the nutrients. Ensure that your fermenting Urine is under shade which is heat and dump-proof to avoid unnecessary reactions and contamination of the content.



## 3. Processing and Storage of Human Urine

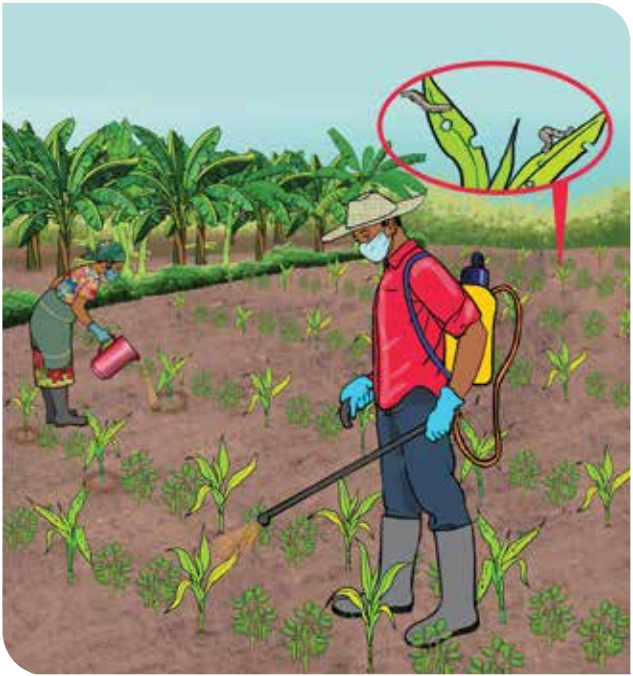
After the fermentation process, filter the urine using appropriate heavy-duty sieves into clean leak-proof containers ready for use. If not used immediately, store the urine in a cool, dark place in a sealed container to prevent odors and avoid the growth of pathogens and the breakdown of nutrients. Do not store for long periods, as the quality may degrade.

## 4. Preparation and Application of Human Urine Fertilizer to the Plants

Before application, dilute the urine with water. Use a ratio of 1:8 or 1:10 that is 1 part urine to 8-10 parts water. This helps to reduce the concentration. Apply the diluted urine to your plants around the base (avoiding direct contact with leaves) during the growing season when used as a fertilizer. It can be sprayed on leaves when diluted to a low concentration (1:10 mixing ratio) for pest control. Ensure to apply during the early morning or late afternoon to minimize evaporation (nutrient loss) and potential plant stress. Also, apply during the growing season and avoid application on plants close to harvest to minimize any potential odor contamination.

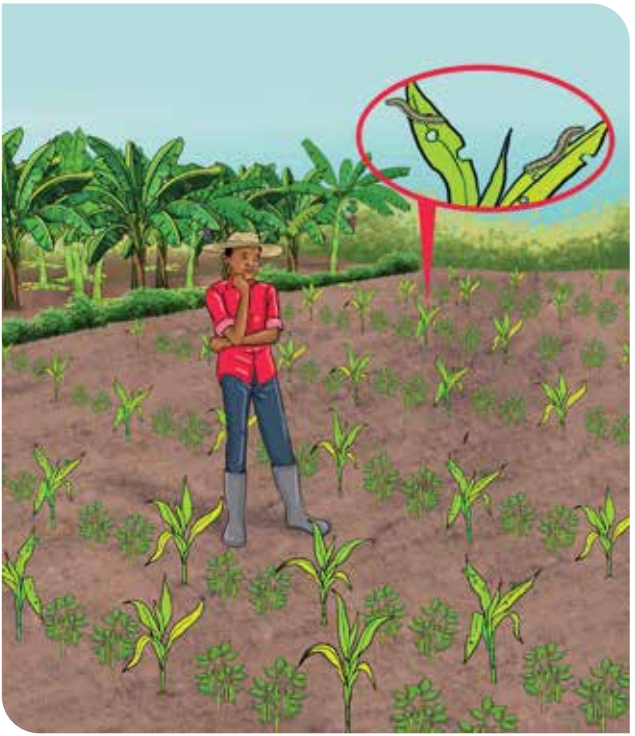
## 5. Frequency

The frequency of urine fertilizer application depends on the nutrient needs of the plants and the soil fertility levels. Application intervals of 2-4 weeks is advisable. Stop applying the fertilizer to crops at least 15 to 21 days prior to harvesting to avoid odor contamination of the harvest.



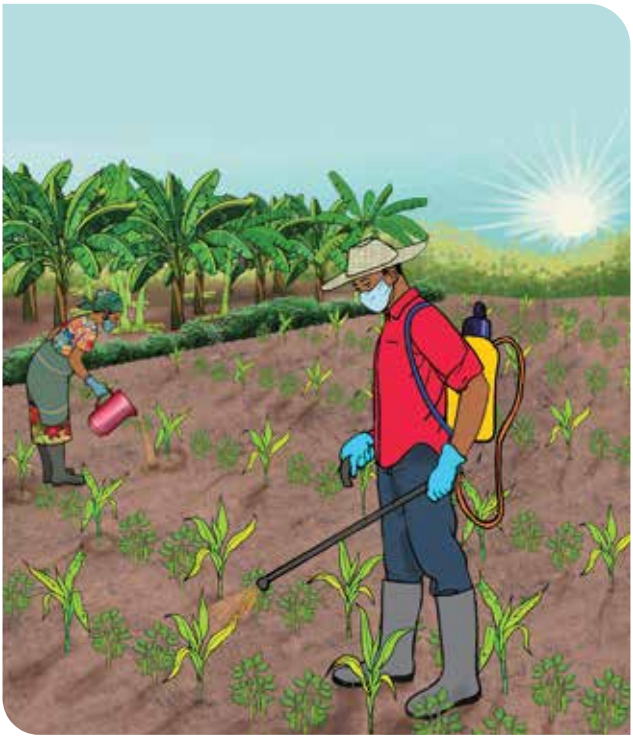
## 6. Monitoring

Observe plant response. Adjust frequency and concentration based on how plants are reacting. Over-application can lead to nutrient burn.



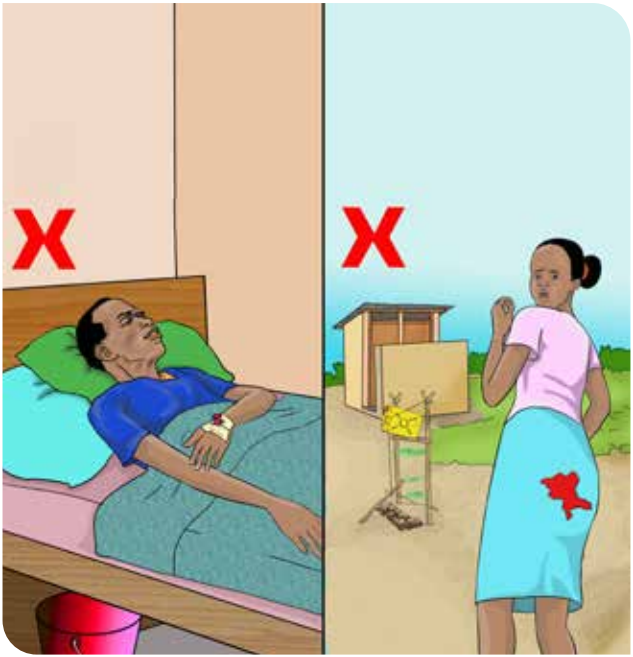
## 7. Timing

Use urine fertilizer during the early morning or late afternoon to minimize evaporation of the nutrients and potential plant stress.



## 8. Safety Consideration

Ensure that the urine comes from healthy individuals. If there are concerns about diseases, it's best to avoid using urine from anyone who may be ill. This is because the urine composition of such individuals may be altered by the physiological changes in their bodies thus affecting the final product from such urine.



## 9. Clean-Up

Clean the collection and application tools thoroughly to maintain hygiene and avoid potential pathogen growth and contamination.

## CONCLUSION

Human urine integration into agroecological processes presents a route toward more resource-efficient, circular food systems as research progresses. In line with the objectives of regenerative farming and environmental resilience, we can transition to an agricultural model that promotes sustainability and productivity by reevaluating trash as a valuable resource.

## About ESAFF Uganda

ESAFF Uganda became operational in 2008 and has since become the largest small-scale farmer-led advocacy movement in Uganda. ESAFF Uganda works to enhance the SSF's ability to make informed decisions and participate meaningfully in development processes. ESAFF Uganda currently has a membership of 12,588 small-scale farmer community organizations in 54 districts, representing over 765,560 individual small-scale farmers, of whom 67 percent are women. ESAFF Uganda is also part of a bigger network of small-scale farmers in 15 other countries in Eastern and Southern Africa.

### Vision

A just and resilient food system led by small-scale farmers.

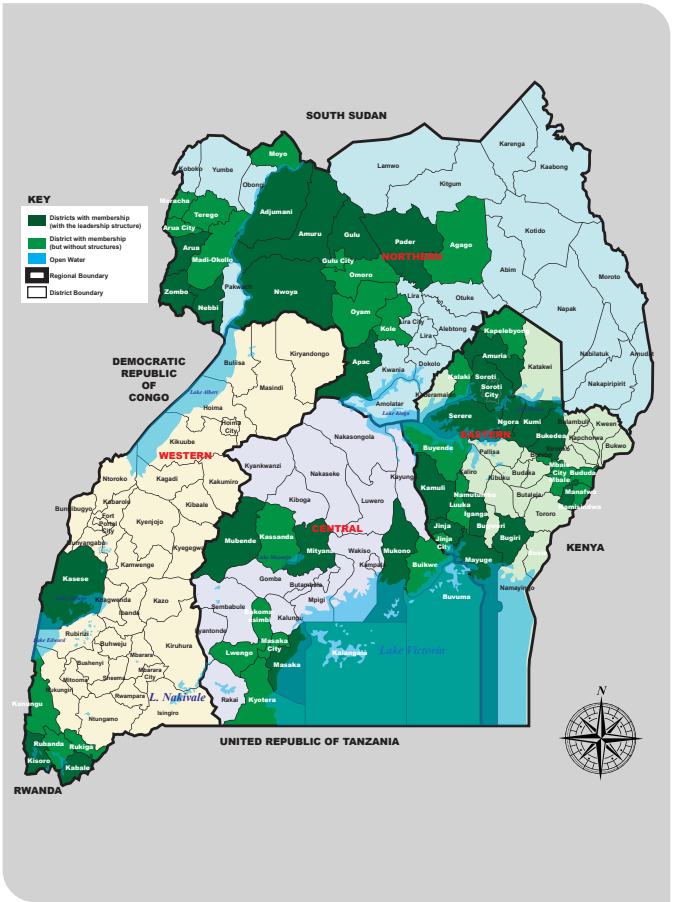
### Mission

To create an enabling environment where small-scale farmers lead in building a just and resilient food system through advancing agroecology and food sovereignty, securing Small-scale Farmers' rights to productive resources, safeguarding consumer rights, fair economic opportunities for all, promotion of public accountability of resources, and strengthening collaborative social movements at all levels.

### Strategic Goal

Increased political rights, social and economic stability and sustainability of small-scale farmers hence ensuring that small-scale farmers especially women, youths and marginalized groups can thrive and contribute significantly to a just and resilient food system at all levels.

# MAP OF UGANDA SHOWING MEMBERSHIP DISTRICTS

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## VISIT OR CONTACT US

**Physical Address:**
Plot 266, Muvule Avenue
Buye – Ntinda, Kampala
P.O Box 34420 Kampala – Uganda
Telephone: +256 393 247 195

**Write to the National Coordinator:**
Ms. Nancy M. Walimbwa
Email: coordinator@esaffuganda.org

**Social Media:**
Facebook: ESAFF Uganda
Twitter: @ESAFFUG
Instagram: esaff_agroecology
Linkedin: ESAFF Uganda
YouTube Channel: ESAFF Uganda TV

**www.esaffuganda.org**