



## **INDIVIDUALS' PERCEPTION OF URINE AND ITS POTENTIAL USE AS A FERTILIZER: A SOCIAL ACCEPTANCE STUDY**

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As the price of fertilizer increases taking up a larger portion of households' budget the support of ecological sanitation and the re-use of urine can be encouraged to alleviate poverty and contribute to food security. However, human waste recycling remains quite unfamiliar in South Africa.

### **Aim:**

To understand the perceptions of key stakeholders and the farmers about the use urine as a fertilizer in agriculture. The wider aim is to determine if this practice is socially acceptable as a contribution to food security. The research will be undertaken with individuals who have been or are being trained at the Newlands Mashu Permaculture Learning Centre as well as farmers who are part of the Umbumbulu Agri-Hub both located in the eThekweni Municipality.

The Newlands Mashu Permaculture Learning Centre was started in 2000 as an NGO and is now run by the Infrastructure Management & Socioeconomic (IMS) Development Department of the eThekweni Municipality as one of its agri-hub training centres. Umbumbulu Agri-Hub is a public-private partnership. It was started in September 2010 by the Newlands Mashu Community Development Foundation for the eThekweni municipality and its focus is on supporting small-scale growers through permaculture principles.

### **Method:**

To investigate the attitudes towards urine in agriculture the research will be conducted during two meetings of farmers organizations that consult with the Newlands Mashu Permaculture Learning Centre. The first phase of data collection will be semi-structured interviews with key informants, members of the IMS strategy team. Similar interviews will be conducted with key informants from the Umbumbulu Agri-Hub. The second phase will entail conducting semi-structured interviews with the farmers during two meetings of farmers' organizations that are part of the Newlands Mashu Permaculture Learning Centre programme. At the Umbumbulu Agri-Hub semi-structured interviews will be carried out with farmers together with the mentor during the daily rounds with the farmers.

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Once the research has been completed there will be a deeper knowledge how individuals relate to urine and its likely uptake as a fertilizer in agriculture. It is anticipated that the investigation may promote sufficient interest among farmers and key stakeholders that a demonstration project can be undertaken. It would assess the potential in alleviating economic hardship due to purchasing fertilizer, increasing food crops thus decreasing food insecurity and potentially reducing pollution through nutrient recycling.

**The Objectives of this study include:**

- To understand farmers perception of urine in general (including culturally).
- To understand farmers perception of urine, in relation as its use in fertilizing crops.
- To understand farmers knowledge of urine as a fertilizer and its potential impact on their crops.
- To understand the perceptions and knowledge of urine, in general and as a fertilizer of the key informants who transmit knowledge of permaculture to farmers.
- To assess the possibility of incorporating urine as a fertilizer into the one of the methods of fertilizing in the training programmes and among farmers.

This research will be done in the context of a master's research degree at the School of Built Environment and Development Studies and will be self-funded.



Typical garden layout (in red) – Mzinyathi area



Vegetables at the Newlands Mashu Permaculture Learning Centre



New farmers learning about crop production



Preparing new beds