

# *Experiments at Recycling urine in the school garden*



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***Teaching the younger  
generation!  
(Schools Sanitation  
Programme)***

***Teaching school children  
about ecological sanitation  
- how build simple and  
effective toilets and how  
to increase crop production  
by using compost and urine  
adds an exciting new  
dimension to sanitation  
promotion***





# ***Garden experiments***

***The usefulness of urine and compost can be taught in school gardens. The knowledge gained can then be passed on to the teachers and communities.***

***Start up trials can be taught in small gardens called "ring beam gardens!"***





***Plants like maize, spinach and rape respond well to urine treatment. They are useful in start up trials.***

***About 20 rape and spinach were planted in each ring beam and about 9 maize seedlings. Plants in some ring beams were fed diluted urine, others water only to make comparisons.***





# ***Urine collection***

***Urine was at first collected in bottles in the boys toilet.***

***Later a special urine collecting trough and tank were fitted to the boys urinal and pumped out with a plastic pump into bottles and buckets***



# ***Garden experiments with urine***

***Urine was applied to the  
soil around the plants  
diluted with water (1:3).***

***800mls urine being diluted  
with 2400mls water and  
applied to the treated ring  
beams two or three times  
per week.***

***All ring beams were  
watered regularly***





# ***Quick results!***

***Garden experiments with urine on poor soil***

***After a month the influence of urine treatment was clearly visible. Rape yield increased 7X, and spinach 4 X. Increase in maize size was very obvious.***

***Upper photos untreated, lower photos urine treated.***





*These simple early trials had an influence on later uptake of the method.*

*School children and their parents, teachers and other members of the community were able to view the result.*

*They marvelled and were impressed!*





## ***Maize trials***

***Later a series of maize trials was conducted using urine.***

***Some rows of maize were fed diluted urine and others water only***

***Huge differences were recorded!***



# ***Maize trials***

***Each maize cob  
was measured in 3  
experiments  
carried out in the  
garden***

***Huge differences  
were recorded!***





*Large numbers of people saw the effects of urine during open day!*

*Hundreds of people witnessed the effect of urine on maize and other plants!*





## ***Other plants - Spinach***

***The application of diluted urine on spinach  
(2litre in 10 litres of water - twice a week)  
enhanced the growth far more than  
commercial fertilisers in this experiment***





***Other plants - Rape***  
***The application of diluted urine on rape was also significant***





***Success leads to success!***

***Now sweet cane and other plants like tomato, onion, soya bean and banana are being tested with urine treatment!***





*This project has taught us that the school is an ideal place for teaching new methods and promoting new ideas!*

*The physical evidence must be provided and the method given support by influential members of the community.*

