

INNOVATION

TIPS & TRICKS



Plastic bottle cut into a piggy bank for saving money

PLASTIC BOTTLES CAN COME IN HANDY

Plastic bottles have become common packaging for drinks, but many times their disposal is done in a way that endangers the environment. Many conservationists have devised means of recycling plastic to save the environment. You can play your part too. The big plastic bottles of two-litre capacity can be put to immediate reuse with minimal modifications. You can use plastic bottles in the following ways.

The bottle can be cut and used as a planter for herbs of our choice when filled with soil.

They can also be used as terrariums for cute culents.

The bottles can be used to

MAKERERE STUDENTS MAKE WINE,

BY JACQUILINE NAKANDI

We usually enjoy juice or wine made from fruits, but this time around, Makerere University students found a way to make juice and wine from sesame seeds, commonly known as simsim.

In Uganda, sesame is mostly used for making salty or sweet snacks. It is also added to peanut butter and sauces.

Commercial extraction of sesame oil already takes place too. But at a recent innovation exhibition, students of Makerere showcased their unusual product from sesame to the awe of guests.

The idea came from one of the students from South Sudan, who shared his knowledge with colleagues for an innovation contest.

HOW IT IS MADE

One of the students, George Ddunga, explains that to make the sesame product, one washes and sun dries the seeds, then grinds them into a thin paste.

"If you cannot access a grinding machine, use a mortar and pestle to pound sesame," Ddunga says.

Boiled water is allowed to cool, then mixed in a container or bucket with the paste to make a solution. This is stirred until the paste completely dissolves into the water.

James Lopwonya, another member of the production team, explains that the amount of water to use depends on the quantity of sesame you have prepared.

However, he says, for one kilogramme of sesame, it takes 10 litres of boiled water.

After mixing the paste in water, they



Makerere University students displaying juice and wine made from sesame seeds. INSET: Sesame seeds

add 200g of honey to the mixture and stir some more. They then cover the container for eight to 12 hours and sieve the contents to remove the particles from the juice.

Lopwonya says after this stage, the juice is ready for consumption.

"In case the taste of honey is not sweet enough, you can add some more until you get the sweetness you desire.

One can use sugar, but we advise honey to avoid diabetes," Ddunga explains.

TEAM

Ramadhan Mohamed, Tony Mutuku, Peter Mazedi, Richard Kularoh, and Abdi Mohamad Dek. Others are James Lopwonya, George Ddunga, Tony Bbale and Nimery Ganga. All are second year students of development economics.

To a first timer, the juice tastes more like sesame with sugar, but many who tried it said it was nice. The juice

expires after 24 hours if not kept in a refrigerator.

SESAME WINE

The sesame juice provides the main ingredient for making the wine.

Ddunga explains that the procedure is the same as the normal wine-making process, only that time for fermentation differs. They leave it to ferment for at least 18 hours. The longer it is allowed to sit, the sweeter it gets. Lopwonya says if you are in

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SESAME JUICE



Sesame juice and wine made by students

HEALTH BENEFITS

The nutritional content in sesame seeds include vitamins, minerals, natural oils, calcium, iron, magnesium, phosphorous, zinc, fibre, thiamin, vitamin B6, folate and protein.

Research has shown that a drink made from sesame can provide the following benefits.

- Manages diabetes
- Reduces high blood pressure
- Boosts bone health
- Improves digestion
- Reduces inflammation
- Boost metabolic function

a hurry to start taking the wine, you can add some yeast so that the wine is ready in about three hours.

PLANS

All together they used sh300,000 for capital and each member had to contribute.

"These are our first products, but we are planning to add preservatives to our products so that they can last for a longer period," Ddunga says, adding that they hope to get a big market.

"Our hope is to be one of the leading wine and juice-making companies in East Africa," he says.

Tony Mutuku, another team member, says their juice costs sh3,000 while a bottle of wine goes for sh15,000.

The juice is an energy drink, while the wine is only for persons above 18 years. They branded their products *Nkwatako*, which means touch me in Luganda. When asked why they chose such a name, they said it will lure customers to buy their product.