

To advertise in *Seeds of Gold* and *Katala*,
book or get a free quote
+256 774 108978



Farmers suggest NaSARRI scientists breed varieties which have a good aroma for confectionery and seed that is good for paste, oil processing and export. The new varieties must have high oil content with essential fatty acids good for human health.

LOMINDA AFEDRARU

Sesame, locally known as *simsim* is increasingly becoming a very important crop to small holder farmers in the country due to its wide benefits.

Agricultural experts say the crop is a critical cash and food security crop for smallholder farmers in Uganda, particularly in the northern, eastern and West Nile regions.

Uganda is the second-largest producer of the crop in Africa and fifth globally, with consumers benefitting from its high-quality, oil-rich seeds, which are in high demand locally and internationally.

As such, scientists at the National Agricultural Semi-Arid Resources Research Institute (NaSARRI), who are mandated to breed the crop for farmer uptake, are currently engaging farmers in *simsim* growing regions to provide information about the preferred attributes which they will consider when improving the existing varieties, as well as breeding new varieties.

Background

The programme leader of oil crops at NaSARRI, Dr Walter Anyanga, who is directly in charge of breeding *simsim*, notes that the crop is one of the oldest oil crops domesticated about 4,000 years ago.

The cultivated type, 'sesamum indicum' is believed to have originated from the Indian subcontinent. When the crop arrived in Uganda in 1910, farmers referred to it as the 'queen of oil crop'.

Farmers are, however, growing the traditional varieties whose yield is not so high, Dr Anyanga says.

His team has developed improved varieties and is in the process of releasing about four new varieties at the end of this year.

"In the breeding programme, it is important to do it in consultation with farmers," Dr Anyanga says.

The meetings are done under a three-year project funded by the International Maize and Wheat Improvement Center (CIMMYT).

Overview

Dr Anyanga, says *simsim* is mainly grown in northern and eastern Uganda, and West Nile, with farmers growing traditional varieties such as *Ajimo*, *Acara*, *Ladong* and *Latin Onywere*, among others.

These varieties have the challenge of poor yield and the capsules open unevenly, while others take long to mature. They are also susceptible to web worm, which consumes the

leaves and gall midge which attacks the capsules.

These varieties easily succumb to diseases such as Anthracnose, *Fusarium oxysporum* which destroys the roots and leaves.

Since 2002, Dr Anyanga has released three varieties namely *Sesim I*, *II* and *III*. Farmers have since adopted growing of *Sesim II* and *III* due to their good attributes.

Sesim II has high oil content of 48 percent and is adaptable to Ugandan conditions, tolerant to drought, pests and diseases.

Meanwhile *Sesim III* has hairy stems and capsules meaning it withstands attacks by the gall midge pest and matures faster.

"Farmers suggested we breed varieties which have a good aroma for confectionery and seed that is good for paste, oil processing and export. The new varieties must have high oil content with essential fatty acids good for human health. They also insisted on varieties which have white and gold colours with slightly large sized seed," Dr Anyanga said.

The farmers further want *simsim* varieties with uniform and short matu-

TREND

Simsim is mainly grown in northern and eastern Uganda, as well as West Nile with farmers growing traditional varieties such as *Ajimo*, *Acara*, *Ladong* and *Latin Onywere* among others.

riety period. The texture must also be soft. The farmers also want *simsim* varieties that will produce more than one branch to obtain more capsules. The more capsules the more yield.

Importance of *simsim* farming and its uses

The Director of NaSARRI, Dr David Kalule Okello explained that *simsim* has been identified as a crop that will reduce oil importation if grown on a large scale.

Currently the crop volume production is between 100,000 tons to 173,000 tons per annum and the average yield of the improved varieties is 700kg per hectare.

Since the crop is inbred, if kept well the seed can last for five years, one of the reasons most seed companies are not interested in multiplying the seed is because farmers can process their own seed.

Farmer experience

Ms Agness Owinyi, a farmer based in Atama village in Dokolo District specialises in processing the seed which she sells to fellow farmers since 2024.

"Farmers grow a lot of *simsim* in the second season running from August to December. I grow the crop on two acres

in the first season but in the second season, I utilise 10 acres to produce more seed," she says.

Previously she grew Sunflower and Soy bean but the marketing system is slow compared to *simsim*.

"I intend to venture into processing *simsim* bio products such as soap and oil to earn more income. At the moment I am able to process over 1,000 kg of quality seed which is sold at Shs6,000 - Shs8,000 per kg."

Ms Owinyi is already in touch with a team of buyers from the United Arab Emirates who are in need of *simsim* for their confectionery industry.

In processing seed, Ms Owinyi makes sure good practices are observed, especially ensuring weeding is done promptly.

"It is important to ensure the harvested *simsim* is properly dried with the right moisture content. Packaging is done in bags made out of sisal but not polythene bags," she says.

"While in the garden ensure no pesticide is applied but use traditional methods of eliminating pests and diseases."



A *simsim* farmer in Dokolo tending to her farm. She is part of the farmers scientists at NaSARRI rely on during their consultative research process PHOTO/LOMINDA AFEDRARU

Scientists engage farmers in breeding quality *simsim*

alominda@ug.nationmedia.com