Natural insecticide helps diversify Rwandan economy

February 4 2014, by Stephanie Aglietti

A woman harvests pyrethre flowers, which will later be dried to produce pyrethrum, a natural insecticide, in Musanze, northern Rwanda , on October 24, 2013

Tourists flock to Rwanda's mountains to see its famed gorillas, but now the small nation is working to diversify its economy with a natural insecticide farmed on nearby fertile foothills.

Pyrethrum, a natural insecticide, is ideally suited to the climate in the

foothills of the Virunga mountains where the gorillas live, in the north of Rwanda.

"It's used to make natural insecticide," explains Laher Nyirakwiha, a barefoot 70-year-old farmer as she tosses a handful of small daisy-like flowers into a wicker basket.

Few grow the plant commercially: only here, in neighbouring Kenya and Tanzania and in Australia, mainly on the island of Tasmania.

The revival of this crop, first introduced in colonial times, is one of Rwanda's recent attempts to diversify its sources of foreign currency, generated mainly by tea, coffee and tourism.

Agriculture still accounted for one-third of the economy of this densely populated central African country in 2012.

"Rwanda decided to develop pyrethrum as a cash crop, so as to get an additional source of revenue for farmers and another foreign exchange earner," Jerome Mureramanzi, production manager at the Rwanda Pyrethrum Company (Sopyrwa) told AFP.

Pyrethrum was first introduced here as a crop in 1936, but dropped off after Rwanda's devastating 1994 genocide, only being revived a decade or so later.

Tasmania is currently thought to be the world's biggest producer, industry sources say, although Kenya, another big producer, stopped publishing statistics a decade ago.

The pyrethrum is exported to the United States, Europe and Asia, while some is sold to a local company that produces organic insecticides.

Pyrethrum cultivation, like every other type of economic activity, was abandoned after the 1994 genocide in which an estimated 800,000 people died, and which left the country's social and economic life in ruins.

Environmental considerations were a factor motivating its revival.

Women harvest pyrethre flowers, which will later be dried to produce pyrethrum, a natural insecticide, in Musanze, northern Rwanda , on October 24, 2013

"As the world becomes more conscious of the need to protect the environment, Rwanda has seized the opportunity to develop this natural insecticide," Mureramanzi added.

Other producing countries are also seeking to revive or expand cultivation the crop. Australia is introducing pyrethrum to parts of the mainland, and the crop is also being revived in neighbouring Papua New Guinea.

Another east African country, Uganda, recently sent a team to Rwanda with a view to growing the crop.

'Win-win' scheme

The plant, from the chrysanthemum family, contains the organic substance pyrethrin, which acts on the central nervous system of insects.

"Pyrethrum kills a wide variety of insects without any impact on the environment, as its organic compound is very quickly destroyed by ultraviolet rays," Mureramanzi said.

The flowers are dried and processed, then the honey-coloured extract is exported, mainly to the United States and to Europe.

Between 2009 and 2013, annual production of dried flower heads rose from 200 tonnes to 1,300 tonnes, according to Sopyrwa, with revenue rising seven fold to $7 million (five million euros).

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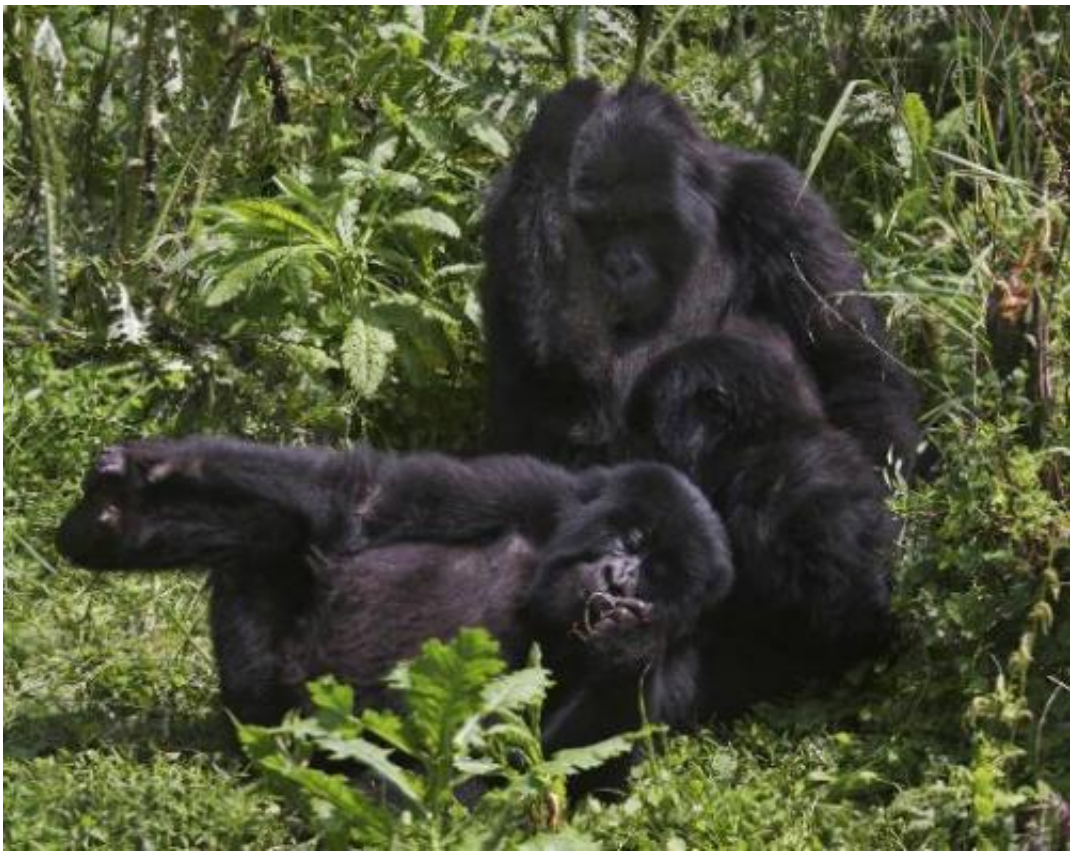
The plant will not grow at altitudes lower than 1800 metres (5,900 feet) and needs cold nights and generous rainfall.

This region of rich volcanic soil where northern Rwanda meets Uganda and neighbouring Democratic Republic of Congo, with its lashing rain and chilly nights, fits the bill exactly.

Some 37,000 Rwandan peasant farmers live from this crop, whose

cultivation covers some 3,000 hectares (7,500 acres).

Under the terms of a deal between the government and the farmers, some of the farmers have to use at least 40 percent of their land for growing pyrethrum.



Mountain Gorillas frolick in dense undergrowth at the Virunga National park in Rwanda on June 17, 2012

The remaining 60 percent can be planted with food crops, while the farmers are also obliged to alternate so that pyrethrum is not planted on the same part of every plot the whole time.

Sopyrwa's director general Gabriel Bizimungu said that the company provides its farmers with seeds and fertiliser, builds drying stations for the flowers and pays its farmers on time.

The farmers have organised themselves into cooperatives to which they sell their crops at fixed prices.

"It allows farmers to diversify their sources of income and Sopyrwa buys all of their production," Mureramanzi said, adding that farmers can access interest-free loans through the cooperatives.

"It's a win-win situation," said Jean-Claude Kayisinga from the Rwanda Pyrethrum Program.

The programme, funded by USAID and Wisconsin-based cleaning products manufacturer S.C.Johnson, has been training farmers since 2009 on how to increase yields and improve the quality of the pyrethrum flowers they cultivate.

Farmers get virtually the same profits as they do from growing potatoes and alternating crops means the productivity of food crops is improved.

Not only does growing pyrethrum help fight erosion, it also enriches the soil, meaning better crops of food staples such as potatoes or cabbages.

Citation: Natural insecticide helps diversify Rwandan economy (2014, February 4) retrieved 8 May 2024 from https://phys.org/news/2014-02-natural-insecticide-diversify-rwandan-economy.html