
Cubans sweet on Scots solution for alien weed

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SCOTTISH scientists have developed a solution to rid Cuba of an aggressive alien weed while restoring land for farming and helping to ease the country's energy crisis.

The once affluent Caribbean island fell on hard times when the collapse of the Soviet Union ended beneficial trade agreements and hit its sugar cane industry.

Many plantations were abandoned, clearing the way for a fast-growing and virtually indestructible non-native plant to grow out of control.

Today tall thickets of thorny marabu, an ornamental shrub originally imported from Africa for its attractive white flowers, have invaded millions of hectares of prime arable land. Its woody roots are as dense as teak with fierce thorns that will pierce a boot.

But now, after four years of work in the country, energy and agricultural specialists from Scotland have succeeded in producing green electricity from the invasive weed as well as devising a viable method for clearing the ground and returning it to a condition suitable for planting food crops.

"Imagine gorse 20ft high with stems as hard as mahogany, growing 6ft a year, and you quickly appreciate why the Cuban farmers armed with hand tools and old Soviet tractors have been overwhelmed," he said.

"We need to harvest it cheaply enough so we can get the land cleared and returned to agriculture for no cost, using the energy value in the marabu to pay for harvesting and transport and things like that."

There have been many challenges to overcome, not least the outdated and underpowered Soviet-era machinery, which was not fit to tackle such tough vegetation.

Paul Fotheringham, a forestry mechanisation lecturer at SRUC, said: "The workers are capable and enthusiastic, with some excellent mechanics. What they lack is experience of modern equipment."

Havana Energy (HE) recently signed a £500 million investment deal to build five renewable power plants that will generate more than 300 megawatts, supplying sugar mills and feeding in to the national grid.

During harvest time the plants will run on bagasse, the leftover pulp from sugar cane production. The rest of the year they will be fuelled by marabu, with all power going into the grid.

"It's a win-win situation, turning a massive problem for Cuba into a valuable asset," said HE chief executive - Andrew Macdonald

The 15-year project is a joint venture with Cuba's state sugar monopoly and is part of a move by the communist government to reduce dependence on subsidised oil imported from socialist ally Venezuela.

The deal is expected to save around £135 million a year in diesel.

But for Cuba this project is not just about alternative energy. The country once held a 35 per cent share of the global sugar market, but this has fallen to 10 per cent. Now there is a new drive to boost production, cashing in on higher prices and a rise in demand from countries like China.

Almost a dozen old mills have been reopened and foreign investment has been allowed into the sector for the first time since the 1959 revolution.

President Raúl Castro has also begun agrarian reforms to increase food production.
