

## Rock dust grows extra-big vegetables (and might save us from global warming)

By Paul Kelbie, Scotland Correspondent

21 March 2005

For years scientists have been warning of an apocalyptic future facing the world. With the prospect of an earth made infertile from over-production and mass reliance on chemicals, coupled with an atmosphere polluted by greenhouse gases there seems little to celebrate. But belief is growing that an answer to some of the earth's problems are not only at hand, but under our feet.

Specialists have just met in Perth to discuss the secrets of rock dust, a quarrying by-product that is at the heart of government-sponsored scientific trials and which, it is claimed, could revitalise barren soil and reverse climate change.

The recognition of the healing powers of rock dust comes after a 20-year campaign by two former schoolteachers, Cameron and Moira Thomson. They have been battling to prove that rock dust can replace the minerals that have been lost to the earth over the past 10,000 years and, as a result, rejuvenate the land and halt climate change.

To prove their point, the couple have converted six acres of open, infertile land in the Grampian foothills near Pitlochry into a modern Eden. Using little more than rock dust mixed with compost, they have created rich, deep soils capable of producing cabbages the size of footballs, onions bigger than coconuts and gooseberries as big as plums.

"This is a simple answer which doesn't involve drastic life changes by anyone," Ms Thomson said. "People don't have to stop driving cars to do this, just spread some rock dust on their gardens. We could cover the earth with rock dust and start to absorb carbon in a more natural fashion which, along with reducing emissions and using a combination of other initiatives, will have a better and faster response."

Before the Thomsons began their "good life" experiment, erosion and leaching were so severe in the glen where they set up home that nothing had been grown there for almost 50 years. The basis of their theory is simple. By spreading a thin layer of the dust over the land, they are able to mimic the earth's glacial cycles which naturally fertilise the land.

Since the last ice age three million years ago, the earth has gone through 25 similar glaciations, each lasting about 90,000 years. "We are 10,000 years into an interglacial - a hiatus between ice ages - meaning modern soils are relatively barren and artificial fertilisers are needed," Mr Thomson said.

"By spreading the dust we are doing in minutes what the earth takes thousands of years to do - putting essential minerals in the rocks back into the earth."

Over the years the couple, who established the Sustainable Ecological Earth Regeneration (Seer) Centre charitable trust in 1997 to test their ideas, have slowly convinced others of their theory. They recently won a grant of almost £100,000 from the Scottish Executive to conduct Britain's first official rock dust trials.

The couple claim the technique may also play a significant role in the fight against climate change as calcium and magnesium in the dust converts carbon in the air into carbonates. Such is the interest in the theory that Nasa in the US is examining it in preparation for growing plants on other planets.

The couple say that the rock dust means that crops don't need water to produce harvests of magnificent vegetables. "It would be perfect for Third World countries that are usually unable to grow crops because the land is so dry," Ms Thomson said. "This could hold the solution for them."

"There is no doubt that, when rock dust is mixed with compost, it has a dramatic effect on crop yields," said Alistair Lamont, president of the Chartered Institution of Waste Management, who is impressed by the Seer experiment. "Future waste strategy is going to rely heavily on the diversion of biodegradable municipal waste from landfill, and one of the treatments involved is composting so we need to find a home for that compost.

"Agricultural land is something we need to work on and the benefits of rock dust in combination with compost can be seen at the Seer Centre at harvest time. We need to get farming to take on board the value of remineralisation and re-fertilisation.

Mr Lamont added that evidence showed that, since 1940, the mineral content of vegetables had fallen dramatically in this country. "We might be encouraged to eat a lot of vegetables but many don't contain the quantities of minerals that we need," he said.