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Oil from a Wasteland - The Jatropha Project in India – Part 6

Not only diesel can be processed from jatropha plants. Deriving other profitable products could guarantee attractive biofuel prices

Biodiesel produced from the jatropha plant has a very low sulfur content. Its combustion generates much lower emissions of particulates and unburned hydrocarbons than does the use of conventional diesel fuel.

Good Ideas and Patience

Of course the interest in the jatropha project primarily focuses on biodiesel. Here, the key question is: Will it be possible to establish the right cultivation and processing methods so that the jatropha plant can produce a high-quality fuel which can compete with petrochemical diesel in terms of price? After all, one key element that makes all the difference between success and failure is the cost factor - in other words, the potential returns.

That's why the partners aim to investigate other possibilities for deriving profitable products from jatropha oilseed. To take just one example, the glycerin that is produced as a byproduct could be marketable. And the press cakes that are left after the oil is extracted could also be used in several ways after the toxins they contain - mainly phorbol ester and a protein known as curcun - are removed. For example, the protein rich remainder could be used as high-quality cattle feed. Alternatively, the high-nutrient press cakes could be used before being detoxified as a natural fertilizer to improve the soil of the plantations.



Possibilities of utilization of jatropha plants.

Even the phorbol ester could become a marketable product after being extracted from the press cakes; it is a natural pesticide that protects the plant from being eaten by insects and grazing animals. "We're running experiments to test the effectiveness and biodegradability of the phorbol ester from jatropha," says George Francis. "We are researching in several directions in order to increase the value added factor of jatropha. Success here will ensure the project's long-term future."

Not only the jatropha seeds but as well the understanding for the potentials of renewable fuels have to mature.

Rudolf Maly is aware of the fact that a project of this scope requires more than expert management and clearly defined goals: "We need lots of patience, for the project will succeed only if we can convince the local people that the cultivation and processing of these energy-producing plants will open up economic opportunities for them. People's thinking has got to change, and that will certainly take as much time as any soil improvement project."

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Abstract of study results available from:

<http://www.informaworld.com/smpp/content~db=all?content=10.1080/00207230701766499>

Footnote: As international carriers turn to biomass fuel for their jumbo jets, this nut is attracting more and more attention – SUNDAY MAIL, www.adelaidenow.com.au August 3, 2008 page 15