



D1 Oils plc

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Pioneering inedible oil for biodiesel in India and China





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D1 Oils plc - AIM listed UK biodiesel company

Our business – agronomy, refining and trading

- **Agronomy** - pioneering the science, planting and production of inedible vegetable oils with the focus on *Jatropha Curcas*
- **Refining** - we design, build, own, operate and market biodiesel refineries
- **Trading** - we source, transport and trade seeds and seedlings, seedcake, crude vegetable oils and biodiesel



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Key challenge – feedstock availability in Europe

- Achieving biodiesel blends of 10% and above from domestic production of edible oils in Europe will be challenging
 - Pressure on prices of edible oils for food use
 - Pressure on available land for planting
 - Concerns over sustainability of expanding fuel crop planting

- Imported inedible oils offer alternative supply at lower cost
 - No high value food uses
 - Significant production capacity in developing countries
 - Potential for large-scale sustainable production
 - Available in medium term in volume at lower cost



Our strategy – alternative feedstocks sourced globally

- Our focus is on lower cost, alternative feedstocks
- Advantages of alternative feedstocks – e.g. jatropha
 - Potential for high yields
 - Outside food chain: not an edible oil
 - Focused growing on marginal land types
 - Hardy with long life span
 - Potential for sustainable production
 - Labour intensive
- Food vs Fuel – It would be perverse to use edible oils to power transportation in India and China



Jatropha – potential for commercial development

- Commercially under developed with excellent potential:
 - High yields of inedible oil (up to 40%)
 - Fast growing
 - Maturity within 5 years
 - Long life span of 30 years and above
 - Useful by-products
 - Limited technology required by farmers

- Potential for improvement of yield
 - Through the application of a structured breeding programme and applied R&D
 - Improved cultivation practices, providing technical assistance tailored to local conditions

- Development of most promising uncultivated accessions of jatropha into progressively higher yielding commercial crops



Jatropha – the huge potential in India and China

- Jatropha does not require same quality of land as food crops
- Abundant marginal and non-arable land available
- India and China are recognising the benefits of jatropha and other inedible oil crops to
 - Replace expensive diesel imports
 - Create employment in poor rural areas
 - Assist in reversing the impact of deforestation
 - Bring degraded land back into productive use
 - Produce beneficial byproducts – seedcake as charcoal replacement, gasification for cooking, biofertilizers
 - Deliver the environmental benefits of biodiesel over mineral diesel

Jatropha curcas

