
Abstract No. 60

PaperTitle **Soya by-products from the biodiesel process-needs for value addition**

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ABSTRACT

1. **Rationale**

The primary barrier to entry for a biodiesel production plant is the cost of the feedstocks. Oilseeds contain a fraction of oil (21% for soyabeans). The by-products, typically high protein press cakes, currently enter the food chain as animal feeds. Flooding of this market with large quantities of poor quality by-products from increased biodiesel initiatives threatens economic viability and food safety.

2. **Objective**

To identify the economic potential of value-added by-products from soya oilcake in South Africa.

3. **Materials and methods**

The DST Joint Implementation Committee on Biodiesel pricing model was used, along with a literature and patent search on new ideas.

4. **Results**

Increasing by-products' value will allow for lower fossil fuel prices while processing plants remain economically viable. A surplus of by-products will necessitate higher biodiesel selling prices, while increasing the risk of using poor quality feedstocks available at lower prices, with poor quality feeds entering the food chain. Minimum oil cake prices needed for a South African plant varied between R1600 and R2400/ton (2006 data).

5. **Conclusion**

The viability of a biodiesel processing plant depends heavily on the fuel price and the by-products selling price. Research must focus on the utilisation of the by-products in new and novel ways to counteract the world-wide downward pressure on by-product prices.