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# Biodiesel and Enriched Animal Feed from Dry Distillers Grains with Solubles Created in Ethanol Production

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**Category**
Life Sciences/Industrial Biotech

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### Biodiesel from DDGS to Replace Soybean derived Biodiesel

Biodiesel can be produced from dry distillers grains with solubles (DDGS), that are leftover from corn consumed in ethanol production, using a chemical process. It is an add-on system placed at the end of an existing ethanol production plant for additional revenue. The process converts corn oil extracted from the DDGS into biodiesel, and further refines the biodiesel into a useable biofuel. This biofuel is an alternative to biodiesel formed from soybeans.

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### High protein DDGS Byproduct is an Enriched Livestock Feed to replace Soybean Feed

High protein DDGS is a byproduct of the process that can be used as enriched animal feed. This protein enriched DDGS can replace unaltered DDGS that is typically sold as animal feed in competition with soybeans in the growing livestock feed market. Similar technologies have been developed for extracting corn oil, but this method extracts more oil from DDGS than any other process, leaves behind high quality DDGS, and is inexpensive to implement and operate.

**BENEFITS OF BIODIESEL AND ENRICHED ANIMAL FEED AFTER ETHANOL PRODUCTION:**

- Biodiesel and high protein DDGS are created from DDGS byproducts of ethanol production
- DDGS derived biodiesel is a potential replacement for soybean derived biodiesel
- High protein DDGS can be used in the place of soybean animal feedstock
- Chemical process uses add-on equipment at the end of the ethanol production process and requires no modifications of existing corn ethanol production plant's operations
- Large potential market (ethanol production plants)
- Solubles are an additional byproduct (can be further refined for additional value products e.g. zein, glycerol, carbohydrates