

An innovative approach to reduce the aflatoxin and fusel oil in DDGS (Distillery's Dried Grain Soluble)

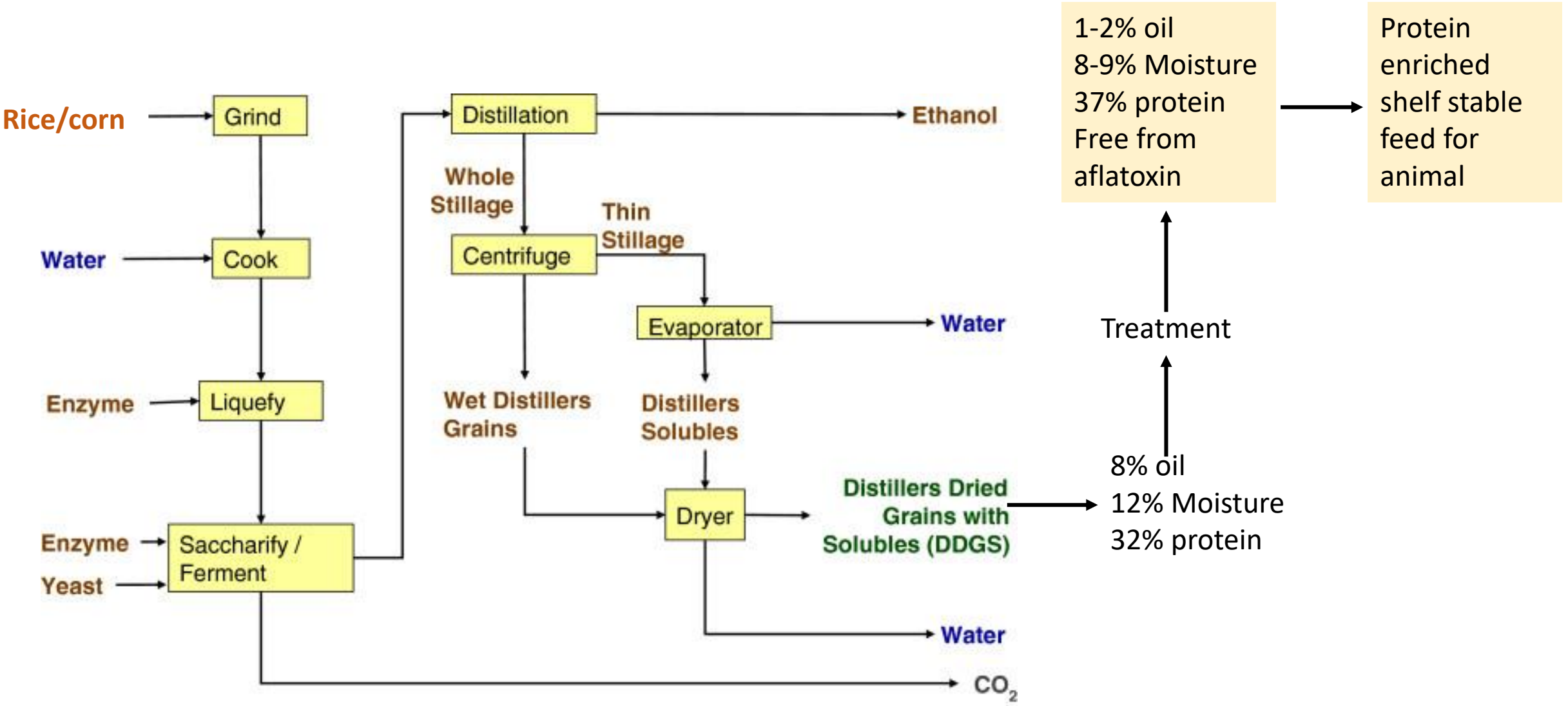


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Outline of the Research

- The present innovation is a value-added byproduct of ethanol plant.
- The Fusel oil content in dried biomass of distilleries is responsible for the development of aflatoxin in feed which not suitable for cattle feed application.
- So, in the current research work the technology has been made to remove the Fusel oil in it which reduces the aflatoxin level.
- A significant modification has been made in the plant to carry out these experimentation work, further assessment proved that the treated feed is suitable for animal feed with reduced moisture content, free of aflatoxin and fusel oil.

Process flow chart



Innovative approach to treat the DDGS



Ddgs first cooked at 110 degree steam

Heat treatment to DDGS



Washed with hot water with food grade chemical in hot water

Treatment with food grade chemical



Then oil and water removed and evaporated

Separation of oil and water



High protein Maize DDGS IS READY FOR ANIMAL AQUA POULTRY FEED

Treated DDGS



Protein enriched shelf stable DDGS
For animal feed

Screening for uniform size

Evaporation
Oven Drying
Removal of moisture

Major Outcomes

- The treated DDGS can be used as feed material due to its reduced level of contamination
- The treated DDGS is enriched with protein
- The modified DDGS has longer shelf life compared to conventional.
- The present innovation is useful for industries to reduce the contamination, microbial load, aflatoxin level in their distillery residue.



DDGS



**High-Protein
DDGS**



**Low-Fat
DDGS**



THANK YOU