DDGSThe future economical source of growth

May 24



The Context

- The Ethanol for petrol (EBP) programme is an ambitious initiative of GOI aimed at achieving 20 % ethanol blending with petrol by 2025/26.
- Current we are at 12 % and the target is 15 % in 23/24
- Total 360 programme which
 - Is green from renewable resources
 - Molasses & Grain
 - Helps the farmer –both in remuneration and access to resources
 - Revived the sugar industry
 - Saves Valuable FX for the country
- Currently ethanol is produced from sugar based or grain (Rice & Maize)
- DDGS is extracted from rice /maize ethanol production
- High Source of energy sparingly used in the feed industry



The future – availability of DDGS

- Driven by Growth in Grain Ethanol Production
- Will be available in plenty in the next two years
- Geographically well spread
- Economical source of energy
 - Protein
 - Rice 42-45 %
 - Maize 26-28 %
 - Stable price
 - Rice Rs 24-25 /kg
 - Maize Rs 14-16/Kg

	ESY 22/23	ESY 23/24	ESY 24/25	ESY 25/26
Grain Ethanol (Cr Litres)	124.00	300.00	400.00	500.00
DDGS (MMT)	0.47	1.34	1.89	2.45
Feed Sector (MMT)	43.00	45.00	47.00	49.00
Pentration (%)	1.10	2.98	4.03	5.00

With Increased availability, Feed Millers will be assured of a consistent supply source at affordable and stable prices



The Challenges for DDGS

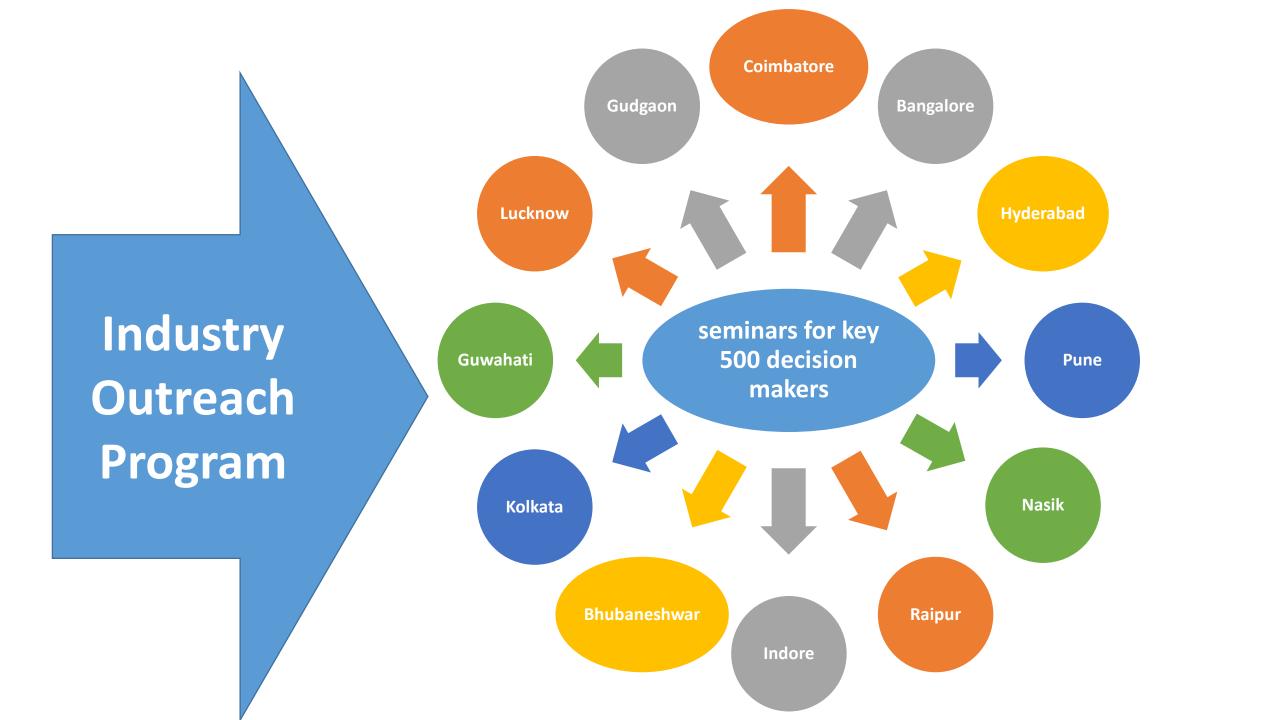
- Very Low penetration with poultry & cattle feed
 - Usually Between 3-5 % percent in formulation amongst users
 - Overall between 1-2 %
- Lack of awareness amongst nutritionists about this economical source of protein
- Consistent Quality
 - Colour
 - Texture
 - Moisture
- The Aflotoxin Fear Real or perceived ?

Opportunity to increase it to 5 % and build it to 10 % . Availabilty will be never an issue



The Road map

Product Customer Formulation for Education each Feed Sector Product **BIS Standards** Create Improvement DDGS as an input of Choice



Aflotoxin Management – Key Steps

- Major Challenge in Maize DDGS on account of high moisture at source and storage practices
- Industry has already put in
 - Feedstock acceptance standards
 - Moisture <14 % and Aflotoxin < 20 ppg
 - Education on storage protocols
 - Currently product trials on for treating aflotoxin
 - Results are encouraging



To Summarize

- Future supply is assured will be available in plenty
- Stable pricing is a given
- Very Viable Economical source of energy
- Industry is working hard to address product challenges

It's a win win for all stakeholders



Thank You

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