

# DDGS Yatra's Seminar at Ludhiana on 21st August 2024

## *“Feed of the Future, For India, By India”*

“Feed of the Future, For India, By India” is the theme of DDGS Yatra which aims to bring all stakeholders to a common platform to discuss opportunities available in light of the sustained availability of DDGS of good quality for the animal feed industry. With the help of Department of Animal Nutrition, GADVASU, All India Distillers Association organized this seminar. It was supported by various partners like CLFMA of India, GEMA, Novonesis and Animal Nutrition Society of India. Dr. Udeybir Singh Chahal, Mr. Sanjit Padhi and Dr. Dinesh Bhosale played important role in organizing this event. Around 190 participants from various sectors attended it.



Dr Parminder Singh, Additional Director of Extension Education welcomed all dignitaries and participants. Dr. Parkash Singh Brar, Director of Extension Education gave welcome address and introduced GADVASU. Dr. Inderjeet Singh, Honourable Vice Chancellor felicitated all guests and speakers.



Mr. Sunil Duggal, AIDA gave presentation about objective of DDGS Yatra. The Ethanol for petrol (EBP) programme is an ambitious initiative of Government of India aimed at achieving 20 % ethanol blending with petrol by 2025/26; the country is at 13.5% now with the

target of 15% in FY 23/24. Currently ethanol is produced from sugar, rice and maize. DDGS is extracted from rice /maize during ethanol production process. More than 170 ethanol plants are spread all over India, but density is high in Haryana and Punjab states. With increased DDGS availability, feed millers will get assured and consistent supply of good quality protein

source at affordable and stable prices throughout the year. Presently DDGS use is very low in poultry and dairy feeds. This is mainly due to lack of awareness amongst nutritionists about this economical source of protein. Getting consistent quality in terms of colour, texture and moisture was a challenge during last few years. Aflatoxin, if present, in DDGS limits its use. We will need to educate DDGS manufactures about testing of raw materials used and of DDGS for important parameters like moisture, aflatoxin, crude protein, crude fibre, oil, total ash and sand silica. NIR machines can also be used for this purpose. BIS standards will be also made for DDGS. Education needs to be done on DDGS storage protocols as well. Trials are also going on for aflatoxin management protocols.



Dr. H. S. Jat, Director, ICAR Indian Institute of Research on Maize, Ludhiana gave excellent information about mission maize – the growth engine of the future. Maize production will be increased from 38 MMT to 45 MMT by 2030. He informed that around 18 MMT maize will be

converted to ethanol in 2030. So around 6 MMT of DDGS will be available for animal feeds. Around 33 MMT of maize will be directly used in animal feeds in 2030. Maize is produced in three seasons in India - Kharif (77.1%), Rabi (18.2%) and Summer (4.6%). Leading states (productivity per Ha) are Tamil Nadu, Bengal, Telangana, AP and Bihar. Areawise top states in Kharif are Karnataka, MP, Rajasthan, Maharashtra and UP. In rabi season, top states are Maharashtra, Bihar, Telangana, AP and Tamil Nadu. In summer season top states are Bihar, Bengal, UP, Maharashtra and Karnataka. Maize will be first preference for ethanol, as sugar and damaged food grains are limited in available quantities. Maize can be produced in all three seasons. Maize can be produced all over India and can be used by local distilleries which will reduce transportation costs. Growing maize is environmentally sustainable as compared to rice and sugarcane. 100 kg maize produces around 35-42 liters of ethanol and 25-32 kg DDGS. He suggested following measures to reduce aflatoxin in maize.

- **Avoid Stresses:** Proper water drainage, proper irrigation, avoid drought stress condition,
- Use of heat, drought, insect-pest resistant genotypes
- Manage Insect-Pests (cob borers & maize weevil) and weed management
- Adapt proper nutrient management
- Avoid late planting
- Follow Crop rotation with aflatoxin-non-susceptible crops
- Avoid mechanical damage to grains during harvesting

- Dry grains at appropriate levels of moisture (<14%) for safe storage at clean threshing floor/ dryers
- Maintain proper aeration in storage/ prevent insect damage during storage
- Pre-harvest application of the Atoxigenic isolate A. flavus
- Top cutting (above the ears) at after physiological maturity (Quality fodder & fast ears drying)
- Avoid heaping of cob/ grain



Dr. Rajiv Thakur, Lead - Fresh milk sourcing, sustainability & competency building, Nestle India Ltd., talked about why cattle feed quality is important for better quality milk production. He explained impact of aflatoxin on cow productivity and milk quality. He recommended that

aflatoxins should be below 20 ppb in DDGS. Regular testing of raw materials and finished feeds should be done.



Dr. Amit Kumar Sharma, Assistant Professor, GADVASU talked about how to use DDGS in animal feeds. He explained various factors which affects DDGS quality. Major challenge is variable quality. High level of unsaturated fatty acids also makes DDGS more susceptible to

oxidation. Mold inhibitor should be used while storing DDGS. DDGS Moisture should be below 12%. All waste materials should be removed. DDGS should not be used to adulterate other feed ingredients like DORB and soybean meal. Lysine content is low in maize and rice DDGS as compared to soybean meal. Digestibility of lysine in DDGS is lower (65%) as compared to lysine in Soybean meal (89%). Tryptophan and arginine are the limiting amino acids in DDGS. For dairy animals, DDGS is an

excellent source of Rumen Undegradable Protein. It is rich source of highly digestible fiber. Low concentration of starch in DDGS reduce the occurrence of acidosis. High concentration of fat in DDGS makes it a high-energy feedstuff. Presently, DDGS is used at 2-3% in broiler feeds, at 2-8% in layer feeds and at 5-10% in cattle feeds.



Mr. BH Mohan of Novonesis talked about "Innovative Bio-solutions for Repurposing Corn DDGS: Unlocking Multifaceted Applications". His key message was, with the help of biotechnology, it is possible to develop new process to enhance the protein content or the quality of

corn DDGS similar to rice DDGS, Additionally, the new process also benefit biofuel plants by enabling them to extract a higher alcohol yield compared to rice, bio-solutions plays an important role in transforming low-cost Corn DDGS into a high-value products.



Mr. Munish Sharma, General Manager, PDS and Mr. Ashok Kumar, President, Punjab Feed Manufacturers Association talked about challenges faced by dairy farmers and feed millers while using DDGS. They appreciated efforts of AIDA to organize such seminars. Punjab dairy farming will act as benchmark for rest of India. Dr. APS Sethi, President of Animal Nutrition Society of India gave vote of thanks.



