

# **Sorghum and DDGS As Feedstock in India**

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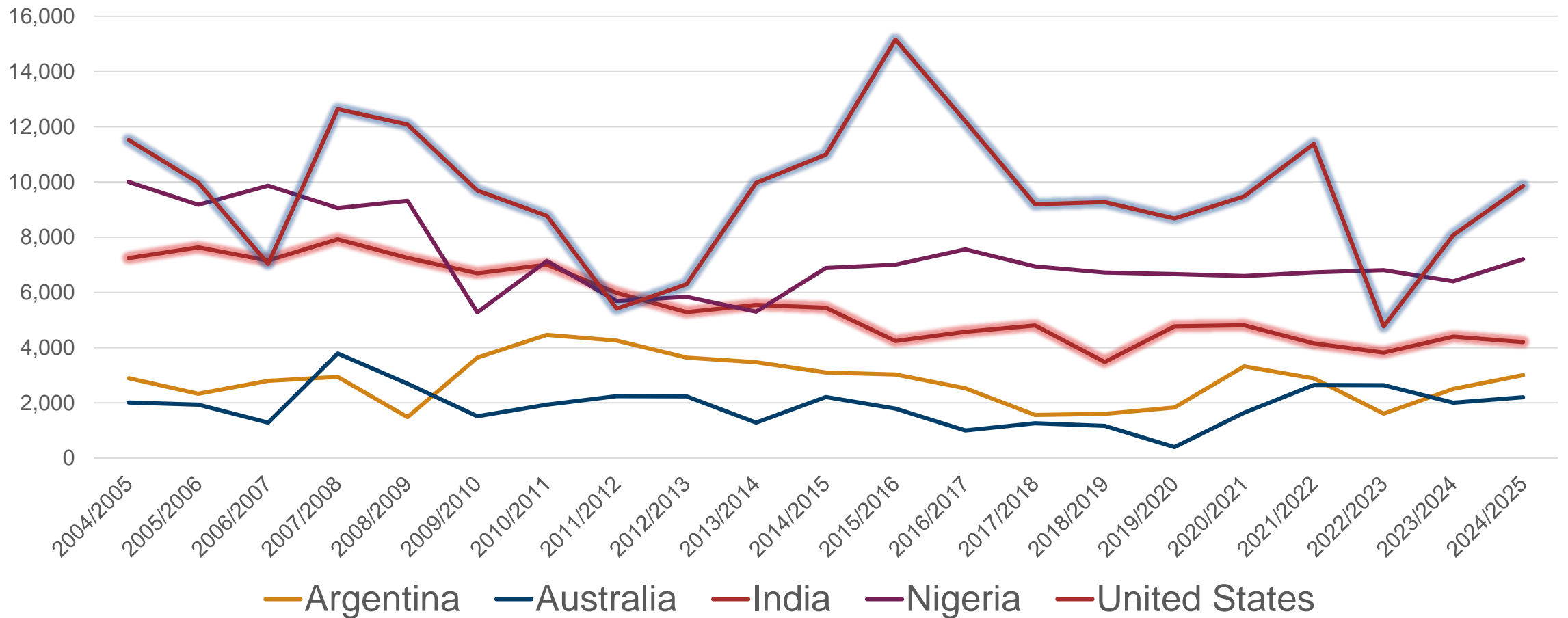


**U.S. GRAINS  
COUNCIL**

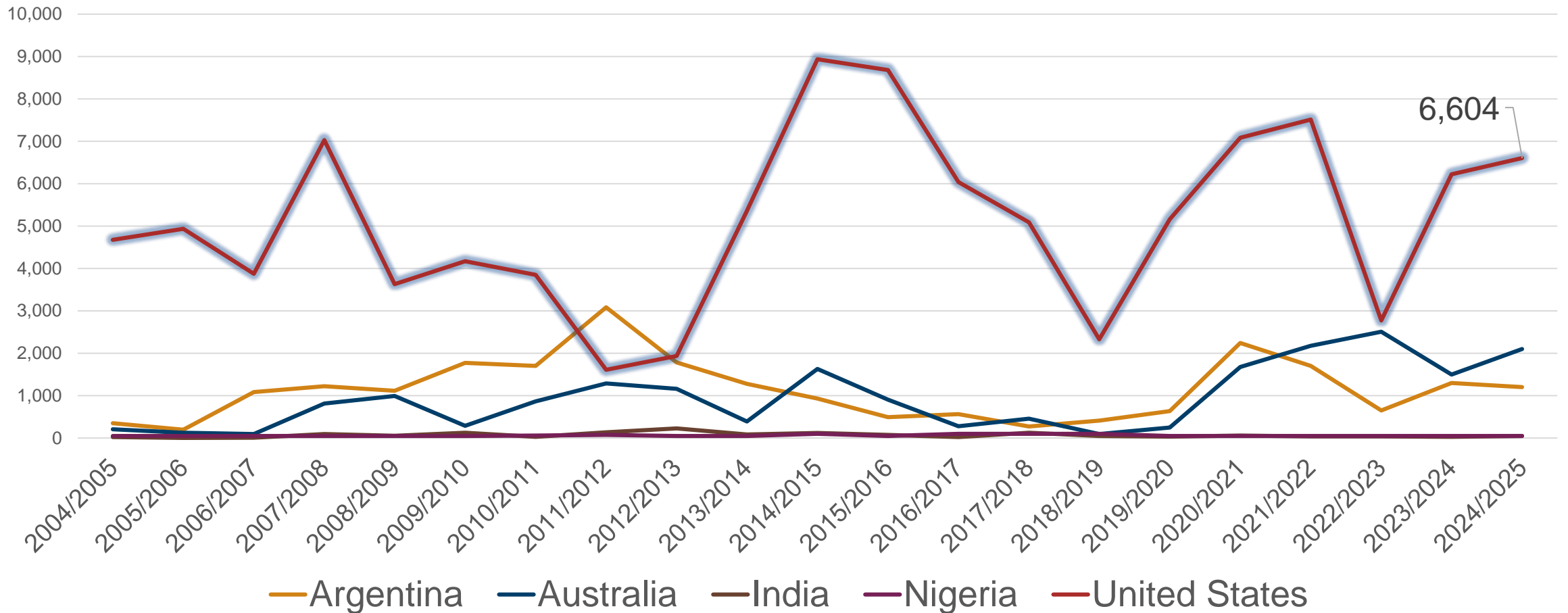
# Sorghum



# Global Sorghum Production By Country (TMT)



# Global Sorghum Exports By Country (TMT)



# Why Is U.S. Sorghum Different?

- U.S. sorghum is primarily “yellow grain sorghum” or you might call it “red sorghum”
- It is **tannin free**
  - Yes, it is completely tannin free
- It has higher protein content than other varieties of sorghum
- U.S. sorghum is non-GMO
- It is drier than other countries’ sorghum, so it stores and transports very well



# How To Use Sorghum?

- **U.S. sorghum can replace corn 100% in poultry diets.**
  - It can also be used a supplement to corn in poultry rations.
- **U.S. sorghum can replace corn 100% in dairy diets.**
  - It can also be used to supplement corn in dairy rations.
  - Sorghum DDGS also do exist and can be used in dairy rations up to 25%.



**FEED VALUE BENEFITS  
OF SORGHUM FOR POULTRY**



**SORGHUM USE IN DAIRY  
CATTLE DIETS**



# Corn DDGS



# Indian Corn DDGS Production Explodes

- In accordance with the National Policy Biofuels in India, the country will strive for a 20 percent ethanol blend in vehicles by next year.
- December 2023 – India moves toward corn for ethanol production.
- 2024 – India likely to use 5 MMT of corn for ethanol production
  - This means that there will be over 1.6 MMT of corn DDGS available in country – and that number is likely to grow in the coming years
- It is very important that Indian feed producers look to DDGS as a viable ingredient to help sustain operations during a time of high input prices
  - Current price is 14 – 15 INR/kg for Indian DDGS



# Considerations for Corn DDGS

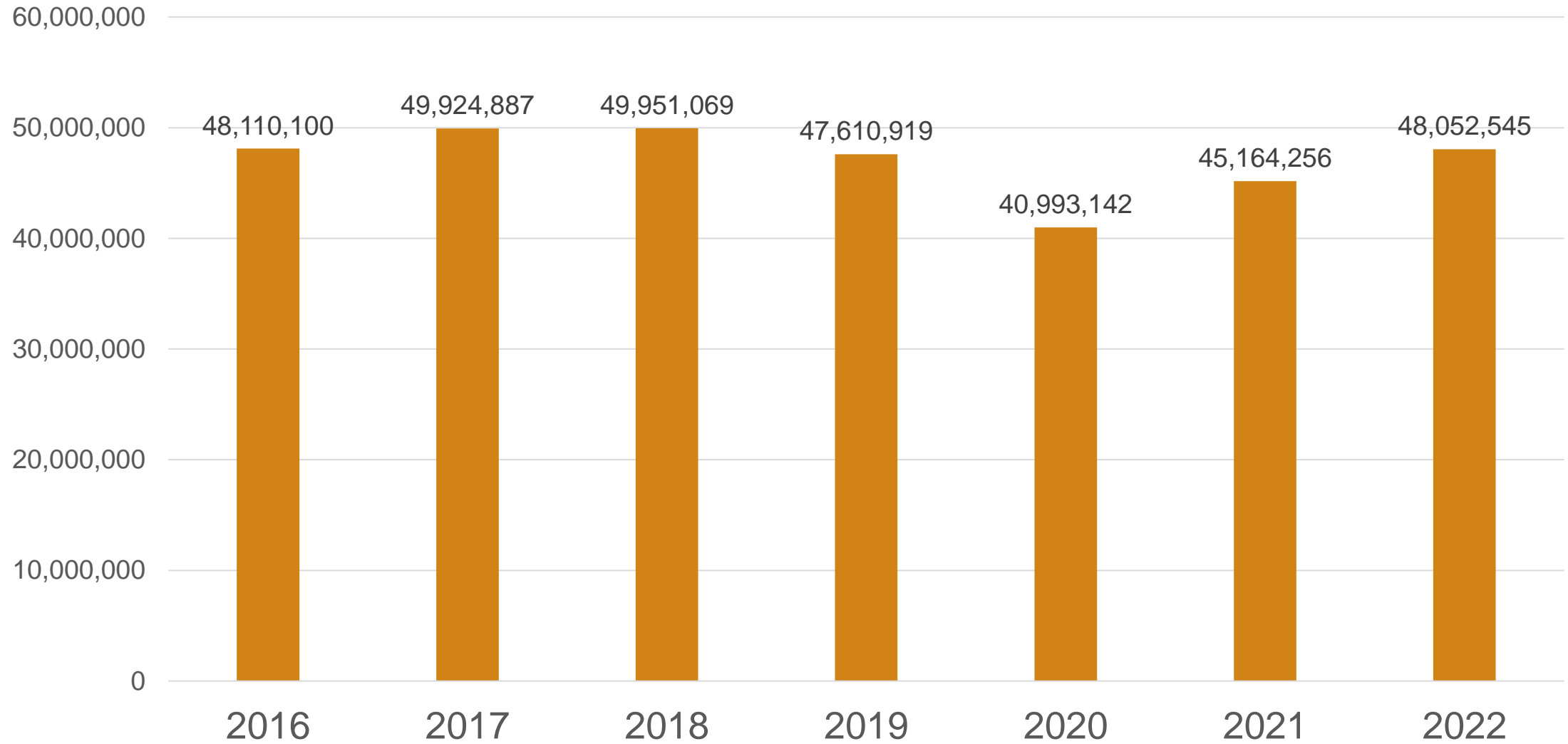
## MAX INCLUSION RATES

- Broiler
  - Starter – 6%
  - Grower/Finisher – 12%
- Layer – 15%
- Aqua – Species Dependent
  - Vannamei – 10%
    - Some studies looking at replacing fish meal entirely with higher protein products
  - Carp – 25%
- Swine
  - Growing – 25%
  - Finishing – 20%
- Dairy – 30% of total ration

## INGREDIENT MANAGEMENT

- DDGS replaces some SBM and some corn, but not all
  - Will require added lysine to improve amino acid profile
- “Profat” can often be used, but we need to understand the breakout of protein and fat
- Color is not always an indication of nutrition
- Aflatoxin has been a concern in India, but is not a concern for imported products
  - Form relationships with suppliers and test, test, test

# U.S. Distillers' Grains Production (MT)



Source: USDA NASS





# THANK YOU!

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