

Harvest white sorghum grain early to avoid bird damage

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Introduction

Birds cause up to 100% yield loss of white Gadam sorghum grain in the field if no control measures are applied. A technology was developed to harvest grain at soft dough stage to prevent damage by birds at that hard dough stage. To prevent high loss, harvest the grain when it turns cream at the soft dough stage.

Harvesting

- Cut all the cream ears using a knife
- Put the grain in gunny bags and spread in the sun to dry
- Have the grain threshed from the panicles (ears) and winnowed for safe keeping.



Harvesting the heads

Drying

Drying platform should be at least 50 cm above ground to prevent Aflatoxin contamination



Raised drying platform



Spread heads to dry before threshing

- After 3-4 weeks the grain will attain 11-12% moisture content safe for storage
- Sunshine exposure period is directly proportional to grain quality
- Cloudy days lead to delayed drying of grain and poor quality of grain due to rotting from fungal moulds

Threshing and winnowing

- Hand thresh the dry heads by beating with a 100-cm length and 2-cm diameter stick and winnow
- Bag and store the clean grain safely away in a well-ventilated room treated with insecticide against weevils

The moisture content should be 11-13% can be confirmed with a moisture metre or other methods before storage



Threshing



Winnowing

Yield advantage

Mean yield of soft dough sun-dried grain was the highest followed by that dried in field under bird attack. The least yield was from grain dried in the field under bird attack. The highest yield of 7.0 tons per acre was attained at cream stage which was 92% greater than unprotected yield.

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