

Post-Harvest Technology for FFA

Crop Name - Sesame (Winter)

Trial Name - Free Fatty Acid (FFA) test

Location - Chaung Phyu village, Magway Township

Division - Magway

Present by - Daw Nwe Nwe Htun

Deputy Staff officer

Department of agriculture

Magway Township

Background

Village

- Chaung Phyu

Village Tract

- Mal Hla Taung

Household

- 205

Population

- 963

Farmland Acre

- 792.64 ac

Cropping pattern - Sesame-Groundnut-Vegetable



Objectives

- To decrease FFA level and improve export quality
- To reduce harvesting cost
- To Promote food safety
- To enhance the Agricultural income of the sesame farmers

Materials and Methods

- Experimental site
- Experimental Design
 - Hanging upside down
 - Immediately tie and place upright after harvesting
 - Tie and place upright after one night piling
 - Tie and place upright after two night piling
 - Traditional Method (Tie and place upright after four night piling)

Materials



Oil grinder



FFA measuring equipment



Moisture tester

Experimental site

- Farmer Name - U Nyan Htwe
- Village Name - Chaung Phyu
- Village Tract - Mal Hla Taung
- Field Number - 1658 B/2
- Block Number - 38
- Experiment Acre - 1.25 ac for 5 methods
- Crop - Sesame
- Variety - Hnan Ni 25/160

Experimental Design

Hanging upside down



- Yield - 1.31 bsk
- Harvest cost - 55000/-
- FFA Level - 0.5

Experimental Design

Immediately tie and place upright after harvesting



- Yield - 1.25 bsk
- Harvest cost - 20000/-
- FFA Level - 1.0

Experimental Design

Tie and place upright after one night piling



- Yield - 1.25 bsk
- Harvest cost - 30000/-
- FFA Level - 1.5

Experimental Design

Tie and place upright after two night piling



- Yield - 1.25 bsk
- Harvest cost - 30000/-
- FFA Level - 2.0

Experimental Design

Traditional Method



- Yield - 1.25bsk
- Harvest cost - 30000/-
- FFA Level - 4.0

Piling by Traditional Method



Immediately tie and place upright after harvesting



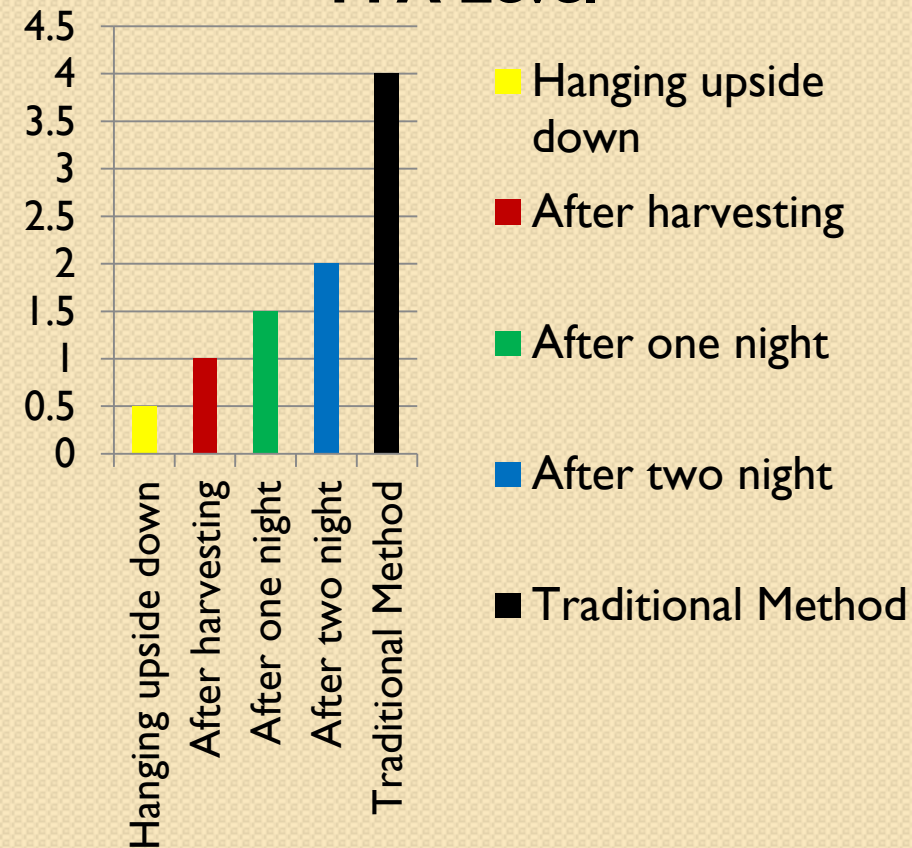
Result

No	Topic	Hanging upside down	Immediately tie and place upright after harvesting	Tie and place upright after one night piling	Tie and place upright after two night	Traditional method
1	FFA level	0.5	1.0	1.5	2.0	4.0
2	Harvest cost	55000	20000	30000	30000	30000
3	Yield (bsk)	1.31	1.25	1.25	1.25	1.25

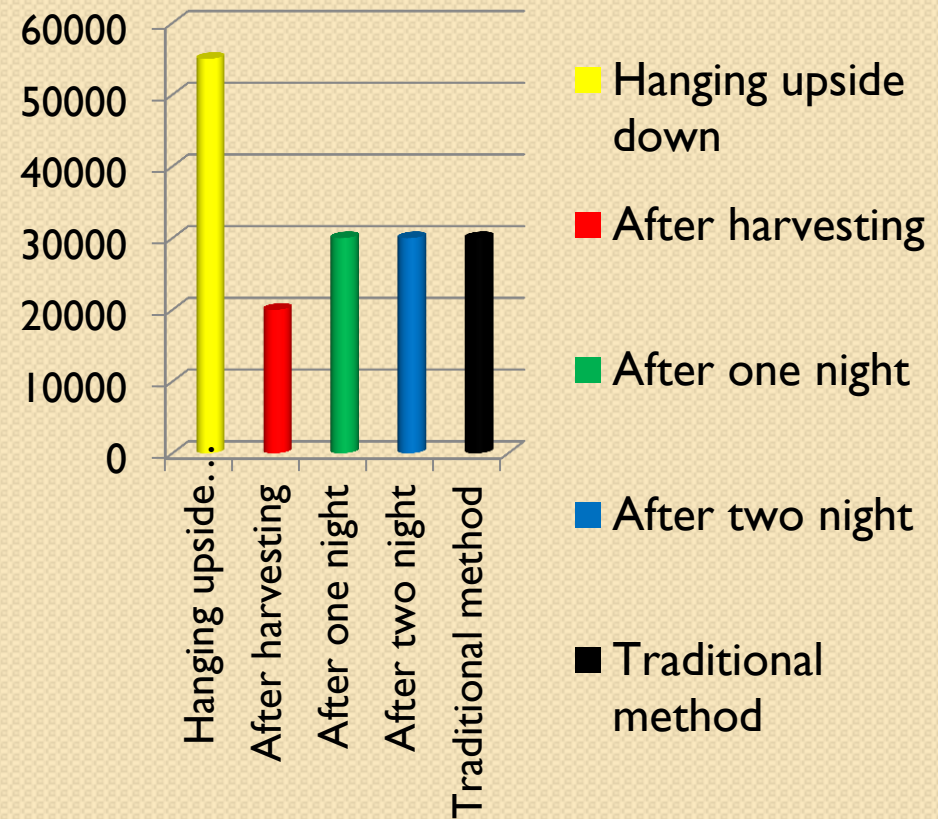
Moisture content - 8%

Comparisons of Experimental Methods

FFA Level



Harvest cost



Finding

- Hanging upside down method is lowest FFA level than other methods, but harvesting cost is more higher than other methods
- In immediately tie and place upright after harvesting method ,FFA level is 1.0 and harvesting cost is lowest than other four methods.
- In tie and place upright after one night , FFA level is 1.5 and harvesting cost is higher than immediately tie and place upright after harvesting method.

Finding

- In tie and place upright after two night, FFA level is 2.0 and harvesting cost is higher than immediately tie and place upright after harvesting method.
- In Traditional method, FFA level is 4.0 and harvesting cost is lower than Hanging upside down method and higher than harvesting immediately tie and place upright after harvesting method.

Conclusion

- According to the result ,FFA level in sesame is lowest in hanging upside down method and harvesting cost is lowest in immediately tie and place upright after harvesting method .FFA level is lowest in hanging upside down method but this method is difficult to do and higher cost for farmer.
- In immediately tie and place upright after harvesting method, FFA level is within the standard level (1.0) and lowest harvesting cost.
- So this experiment showed that immediately tie and place upright after harvesting method is suitable for farmers.

Conclusion

- Hanging upside down method → harvest cost is high but FFA level and the losses amount is lower
- Need to do research to know exact losses amount in next year
- Although using the right method at harvesting time to reduce FFA level, the traders do not store with pellet or bamboo card to maintain moisture content, FFA level can increase
- Moreover, the traders should care transportation time because it is one factor to maintain moisture content and FFA level

Suggestion

- Farmers didn't know harvesting by traditional method is not safe for food and FFA level is higher for export quality
- Immediately tie and place upright after harvesting method
 - FFA is within the international standard
 - eligible with GAP guideline and harvesting cost is lower than traditional method
- Farmer should use this method
- As our site of DOA, we will train and educate to the farmer and encourage to use this method

A photograph of a vast field of green plants, likely a crop field, with many small white flowers scattered throughout. The plants are densely packed and fill the entire frame. The text "Thanks For Your Attention" is overlaid in the center in a stylized, golden-yellow font with a dark outline.

Thanks For Your Attention