

OPTIONS FOR QUALITY CONTROL

Effects of good Agricultural Practices on the Quality of
Cocoa Beans in Ghana.

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INTRODUCTION

Ghana produces cocoa of premium quality which satisfies four fundamental areas of purity or wholesomeness, yield of cocoa nib, uniformity and high acceptable flavour. Ghana's cocoa highlights qualities which are due to skills and traditions of predominantly smallholder farmers who use low technology in their farming activities. There is a sincere effort by Ghana Cocoa Board (COCOBOD)/Government of Ghana (GOG) to encourage and motivate most farmers to adopt medium to high technologies to enhance farmer productivity and improve and sustain quality of its already premium cocoa beans.

Recommended Agricultural Practices In Cocoa

- **Soil Fertility Management**
 - eg. Application adequate amount of inorganic/organic fertilizers at the right time.
- **Integrated Pest Management**
 - eg. Insects, rodents, weeds, mistletoes and other epiphytes.
- **Effective Control of Diseases of**
 - eg. Black pod, cocoa swollen shoot virus.
- **Pruning and Shade Management**
- **Effective and Safe use of Agrochemicals**
 - tested and approved by Cocoa Research Institute of Ghana (CRIG) to forestall tainting of beans to meet the Safety requirements of consumers.
- **Effective Multiple Cropping Systems.**

International Standard for the Assessment of Cocoa Bean Quality

- Cocoa bean must be well fermented and thoroughly dry.
- Must be free from being smoky, abnormal or foreign odours and evidence of adulteration and foreign matter.
- Must be reasonably uniform in size, free from being broken and pieces of shells.

International “Code of Practice” in cocoa quality control

It involves:

- Inspection of beans
- Sampling
- Testing
- Bagging
- Storage
- Infestation of cocoa beans and warehouses

Defective Beans and Causes

The above “code of practice” identifies defective beans as follows:

Defective Beans

Mouldy beans

Slaty beans

Purple beans

Brown beans, black spots

Black beans and beans with
High Free Fatty Acid (FFA) Content

Germinated beans

Causes and effects

inadequate drying of cocoa beans, storage in a sack, and often in poorly ventilated room.

- Produces chocolate with bad flavour.

under fermentation/ or no fermentation.

- Gives chocolate a bad (bitter) taste and thereby reduces the market value of cocoa.

harvesting of unripe pods, under fermentation.

- Produces bitter chocolate and reduce market value.

Over fermentation

- Produces taste of rot and reduces market value. diseases eg. Black pod and brown rot, over-ripening of pods before harvesting, improper or long storage of beans

- Reduction in the market value of cocoa

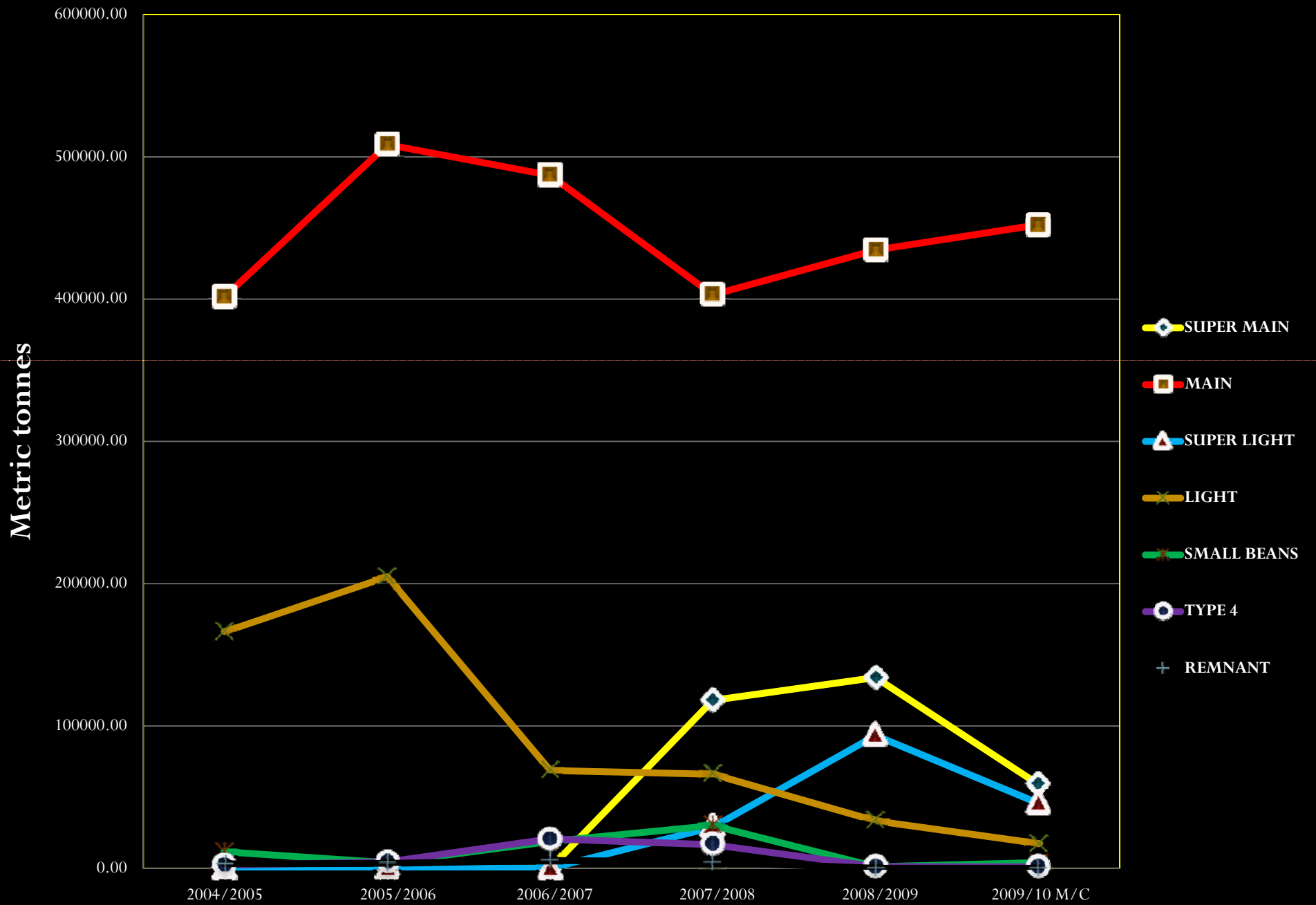
over-ripening of pods

- Facilitates the entry of moulds.

Crop Category in Ghana (Geographic Indicators of Ghana Cocoa)

<u>Category</u>		<u>Beans size</u>
• Super main	-	up to 90 beans per 100 gms weight
• Main	-	91 to 100 beans per 100 gms weight
• Super light	-	101 to 110 beans per 100 gms weight
• Light	-	111 to 120 beans per 100 gms weight
• Small beans	-	121 to 130 beans per 100 gms weight
• Type 4	-	131 to 150 beans per 100 gms weight
• Remnant	-	151 to 180 beans per 100 gms weight

Crop Category (2004/05 -2009/2010)



Conclusion

Significant improvement in bean quality in Ghana has been as a result of interventions that have encouraged and motivated farmers to adopt medium to high technologies in cocoa cultivation, such as

- ❖ National pest and disease control scheme/program – to control blackpod and capsid.
- ❖ Subsidy on fertilizers for higher adoption rates by farmers.
- ❖ Intensified farmers education to encourage adoption of good agricultural practices.