

Importance of Cashew Breeding and Development of Varieties for Sustainable Cashew Production in the Context of Climate Change and Health Pandemics

Peter A. L. Masawe

International Cashew Value Chain Specialist, 16th September 2021

Importance of Cashew Breeding

1. Increase Productivity

Obtain higher yields and good nut quality

2. Develop Resistant Varieties

Resistance or tolerance to major diseases, insect-pests

3. Develop Varieties with wide Adaptability

Wider environmental adaptability (drought, soil types)



Increase Productivity

Yield and Nut quality

- High yielding (dwarf, common) 10-100kg/tree
- Nut Weight >7g
- Nut shape to fit in processing technology
- Easy separation of appe from nut
- Higher Shelling % (>25%)
- Easy peeling of testa
- High Kernel Grades (WW180, 210, 240)





Disease Resistance

Leaf & Nut Blight and Powdery mildew



Insect-pest Resistance

Helopeltis bugs











Insect-pest Resistance

Aeroplane and Coconut bugs









Adaptability

Drought resistance

Suitable to various soil types, rainfalls,

altitudes etc

Less pesticides



Constraints in Cashew Breeding

- Not easy as it is in annual crops
- Needs scientist to be more patient
- Takes many years to develop variety (10-20)
- Requires large area for experimentation
- Requires a lot of human resources
- Requires a lot of financial resources
- Selection criteria needs to be observed with extra care as mistakes cannot be corrected!!!



Conclusion

Development of new cashew varieties is very important due to the following:-

- Cope with climate change
- To fit/suit to new processing technologies
- Resistance to new diseases/insect-pests to avoid use of pesticides
- To address kernel market demand
 - Higher grades

