
Background

- Senior Lecturer in the Department of Crop Science at Makerere University, Uganda
 - M.Sc. (Agric.) MAK (Cowpea Pathology), 1996.
 - Ph.D. (Plant Pathology; Molecular Plant Virology), The Ohio State University, USA, 2001
 - ✓ Thesis: Genetics of Virulence of the *Maize streak mastrevirus*
 - Interim, coordinator AMMAnet
-

Concrete benefits for poor farmers in Africa using molecular markers

Speeding up delivery of products to poor farmers

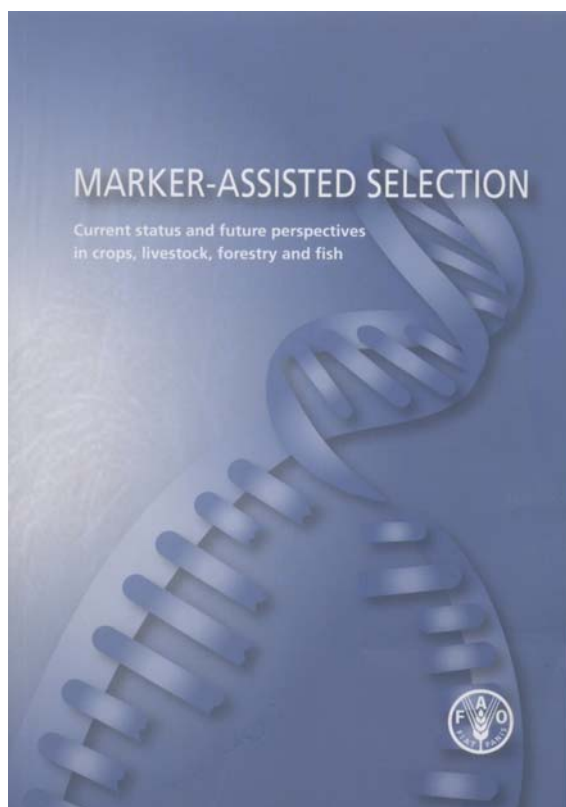
Richard Edema

Africa faces a multitude of societal challenges

- Abundant natural resources
 - ✓ Low agricultural productivity
 - ✓ Human, crop and animal diseases
 - ✓ Post harvest losses
 - ✓ Increasing population & its demands
 - ✓ Poor health-care and sanitation
 - ✓ Poor nutrition
 - ✓ Environmental degradation
 - ✓ Limited industrial production
 - Biotechnology promises remedies with potential to overcome development challenges, and there MANY
-

Benefits of molecular marker technologies for poor farmers in Africa

A good review



- Most used after Tissue culture technology
- Public acceptance not a problem
- Despite expectation has not delivered benefits

We need collaborative research to demonstrate the potential of markers

- Many “low hanging apples” for MAS-derived varieties
 - CIMMYT research:
 - Maize Streak Virus Disease resistance
 - Opaque-2 trait in Quality Protein Maize
 - CIAT research:
 - Cassava Mosaic Disease resistance
 - Cassava Green Mite resistance
 - ICRISAT research:
 - Stay-green trait
 - None is a routine in NARs breeding
-

“low hanging apples” maybe not so simple to achieve

- Requires building effective teams and networks between and amongst downstream researchers
-

African Universities

- Human resource
 - Strengthened capacity for capacity building; sustainable
 - Poster 314 and 315
-

African Molecular Marker Applications Network (AMMAnet)

What we wanted to achieve

- ❑ Enhanced collaboration through sharing of resources and peer support
- ❑ Reduced transaction costs and enhancing economies of scale, scope and size
- ❑ A dynamic platform for developing capacity and supporting innovations in biotechnology and other emergent sciences

What we been able to do

- Held 2 training workshop
 - A website for easy access to information;
<http://africancrops.net/ammanet/>
-

Limitations

- ❑ Less than 1% of members have active research
 - Over 100 members
 - Is there effective participation?
 - ❑ Institutionalization
 - ❑ Strengthen management (Voluntarism)
-

What GCP can do

- Guidance, resource and peer support
 - **Develop as part of a “community of practice”**
-

THANK YOU
