

# SEVERITY OF FRUIT FLIES AND EXPERIENCES IN THEIR MANAGEMENT IN THE UNITED REPUBLIC OF TANZANIA

EAST & SOUTHERN AFRICA VIDEO CONFERENCE  
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# PRODUCTION CONSTRAINTS: TEPHRITID FRUIT FLIES

- Situation before 2003: Economic importance of aboriginal fruit flies: *Ceratitis cosyra* sp: destroying 20-30% of produce in severe cases but often lower
  - Farmers could live with the damage
- Introduction in 2003 of *B. invadens* and its country wide spread by 2005 (Seguni *et al*, 2004; Mwaiko *et al* 2005)
  - Increased damage and loss of revenue in severe cases >80% of potential produce
  - A time of increased awareness of the value of mangoes for local and foreign trade
- Introduction in 2006 of *B. latifrons* on solanaceous fruits like eggplant & african nightshade.
  - Little damage and attention paid to it

# FRUIT FLY MANAGEMENT PRACTICES IN TANZANIA

- Traditionally little was known on fruit fly management except:
  - Fruit collection and deep burial
  - Use of cover sprays with various insecticides
- Emphasis on Integrated Pest Management techniques:
  - Fruit collection & burial
  - Use of male pheromone traps for mass capture of males
    - Experimental use of cloves & other spices as source of eugenol in Zanzibar
    - Use of pheromone traps at exit/entry points, rural and urban market places, and in residential areas
  - Use of attractant protein food baits mixed with insecticide
  - Use of Spinosad organic naturalite product starting
  - Use of parasitoids and predators

# National Initiatives

- Mikocheni / Kizimbani Agric. Research Institutes, key research institutes for fruit flies
- Agric. Sector Dev't Programme – Strategic & zonal research, involving also Farmer Field Schools
- Plant Health Services & Plant Protection Division
  - Training/awareness creation for extensionists and farmers in co-operation with FAO
  - Provision in the Ministerial Budgets
- Assoc of Mango Growers – Awareness creation & training on IPM Funded by self generated funds, Govt & USAID
- Ministry of Agriculture, Livestock & Environment Zanzibar – 15,000 traps, researching use of cloves as attracting agent, researching appropriate killing agent, focus on eradication.

# Regional & International Initiatives

- MARI, Kizimbani & ICIPE – Research on the indigenous and exotic fruit flies of economic importance (1999 to date through AFFI/BMZ)
- Ministry of Agric. Znz collaboration with WorldBank & IFAD
- WRDA & MARI – Research on effect of the weaver ant on fruit flies (IPM)
- USAID & PHS & MARI – *B. invadens* detection survey 2003.
- FAO, PHS & MARI – Delimiting Survey on fruit flies 2005
- FAO, PHS & MARI – Awareness creation on fruit fly mgnt
- BCAS & ICIPE – BMZ project on release of natural enemies for *B. invadens*– *Fopius arisanus*
- SUA & University in Belgium

# CHALLENGES AND WAY FORWARD

- Need to intensify the use of mass media and community networks to build greater awareness on the risks posed by fruit flies and mitigating actions
- Need to enforce area-wide fruit fly management by involving all fruit farmers to achieve more tangible reductions of fruit flies and of damage to all types of fruit
- Wide distribution of wild & neglected (eg. in markets) cultivated fruit hosts
- Unavailability of fruit fly IPM tools in the market; present situation where the MAFC avails some of the products is commendable but unsustainable
- Minimising procedural red-tape that delays registration of control products
- Commendable efforts by AMAGRO to procure Mazoferm
- Limited financial resources for R&D on fruit flies