13th annual Sweet potato breeders meeting,
17 -20 June, 2014
Blantyre, Malawi

Ethiopia

Sweetpotato in Ethiopia

- Area under sweetpotato production in Ethiopia: Over 50 thousands of hectare (FOA,2010)
- >400 thousands tons of production with productivity of 8.4 tones/Ha
- 16th in rank of world production(FAO, 2010)
- Produced by 1.7 million HH
- The productivity gap between farm field and research stations is very high;

Objectives of the improvement program

- To investigate high and stable yielding sweetpotato varieties with resistannce/tolerance to diseases and insect pests(SPVD, weevils, butter flies,…) and drought and acceptable consumer proffered qualities(high dry matter, high beta carotein,…)

Landraces under production

- In the past there were several land races under production, but recently there is no known landrace
- ?lost most probably because of several incidences of drought that affected traditionally sweetpotato growing areas

Most important bred varieties

- 24 varieties were released
  - 18 white fleshed
    - Awassa-83
    - Temesgen
    - Belela
    - Beletecc
    - Ogansegen
  - 6 orange fleshed
    - Kulfo
    - Tulla

Crossing block

- 26 parents
  - Most of the varieties did not flower. Only seven varieties used to flower. So it needs some special strategy to promote flowering for crossing purpose

Types of trials

- Seedling nurseries
- In 2012 one nursery with 10 poly cross botanical seed families obtained from CIP/Uganda
  - 3000 seeds planted
  - 1746 seedlings were raised
- In 2013 one nursery with 33 poly cross botanical seed families
  - 3300 seeds were planted
  - 2400 seedlings were raised

Types of trial

- Observation nursery
  - Location: 1
  - 1700 clones with six cheks under augumneted design
- Preliminary yield trial
  - Location : 2
  - 64 clones with six checks using simple lattice design
- Adaptation trial with introduced OFSP
  - Location: 8 locations
  - Three varieties with three checks with two replication under RCBD

Foundation seed system

- 4 ha under foundation seed multiplication
  - Commercial seed producers
  - Direct dissemination through extension system

- Tissue culture facilities
  - ❑ In the past we were assisted by CIP/kenya
  - ❑ Now we have tissue culture laboratories supported through CIP to produce clean plantlets of SP

Research personnel

- In national program
  - One scientist(Ph.D.)
  - Two technicians(diploma in agricultur)
- In regional programs
  - There are over eight researchers who devote more than 25% their time for sweet potato improvement
- In the future
  - One Ph.D. student under AGRA training

Funding source

- Ethiopian Government is the main source of funding
- For seed system development we funded through CIP projects: DONATA, BPBL and Irish aid nutrition project

Challenges for future

- Low yielding varietie
- Disease(SPVD)
- Insect pests(weevil)
- Drought
- Availability of clean planting material
- ?


THANK YOU