

CloneSelector update Luka M Wanjohi 25<sup>th</sup> April 2013

Kigali, Rwanda

SWEETPOTATO ACTION FOR SECURITY AND HEALTH IN AFRICA





- CloneSelector is a tool developed to help plant breeders carry out field trials, analyze the results and make selection decisions.
- Design and analysis of RCBD, Augmented block and Alpha(0,1) available to date.
- G x E implementation for RCBD designs





- The software is OpenSource
- Supported by International Potato Center under SASHA project
- Available for download at
  <u>http://sweetpotatoknowledge.org/germplasm/research-methods/cloneselector3-0</u>

#### Developments 2013/2014



- Routine for automatic import of NIR's data
- Alpha and Augmented block designs
- Installation and training in over 10 countries



## **Installation and Training**



- Kenya
- Uganda
- Tanzania
- Ethiopia
- Rwanda
- Malawi

- Zambia
- Ghana
- Angola
- Sierra Leone
- Benin
- Nigeria

Approx. 40 new sweet potato trials entered into CloneSelector during the various trainings

#### **Some User Feedback**



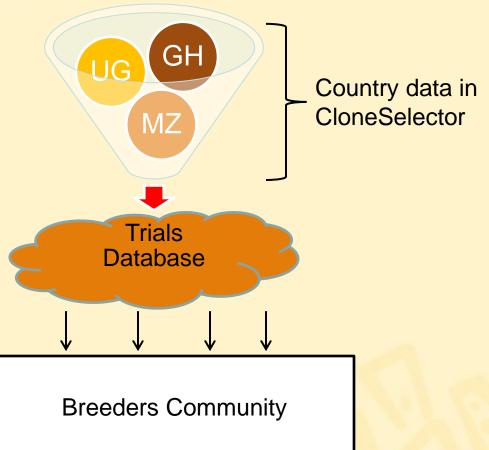
- Include some new results for RCBD analysis: genotype and error mean squares
- Inclusion of selection index for single location trials

35	Overall_mean	35	Overall_mean
36	Min_mean	36	Min_mean
37	Max_mean	37	Max_mean
38		38	
39	LSD_Geno		110 0
40	LSD_Block	39	MS_Geno
41	p_Geno	40	MS_Error
42	p_Block	41	p_Geno
43	CV	42	p_Block
44		43	CV
45	VC_Geno		100
46	VC_Block	44	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
47	VC Residual	45	VC_Geno
		46	VC_Block
		47	VC_Residual

#### **Trials database**



- Going forward, a way to share breeding data needed
- Foundation is standardized data entered into CloneSelector



# Barcode label and PDA use as Breeding Aids



## **Multiplications + Nurseries**

- Labels for plots
- Data on survival and health status
- Labels for cutting planting material (generated from CloneSelector)

## Trials

- Labels for plots
- Data collection
- Multiple labels for quality lab

# **Hybridizations**

- Labels for plants
- Labels for crosses
- Track and guide crossing
- Labels for seed packs
- Monitor seed stocks

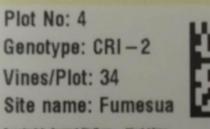
# Germplasm Clean up and Distribution

- Labels for TC and pots
- Health status tracking
- Inventory tracking
- Shipping labels

## **Barcode Labels and PDAs** for Use at SSP-WA









Plot No: 3 Genotype: CRI-5 Vines/Plot: 34 Site name: Fumesua



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