



# Do we have the right variety in/for the market in Africa?

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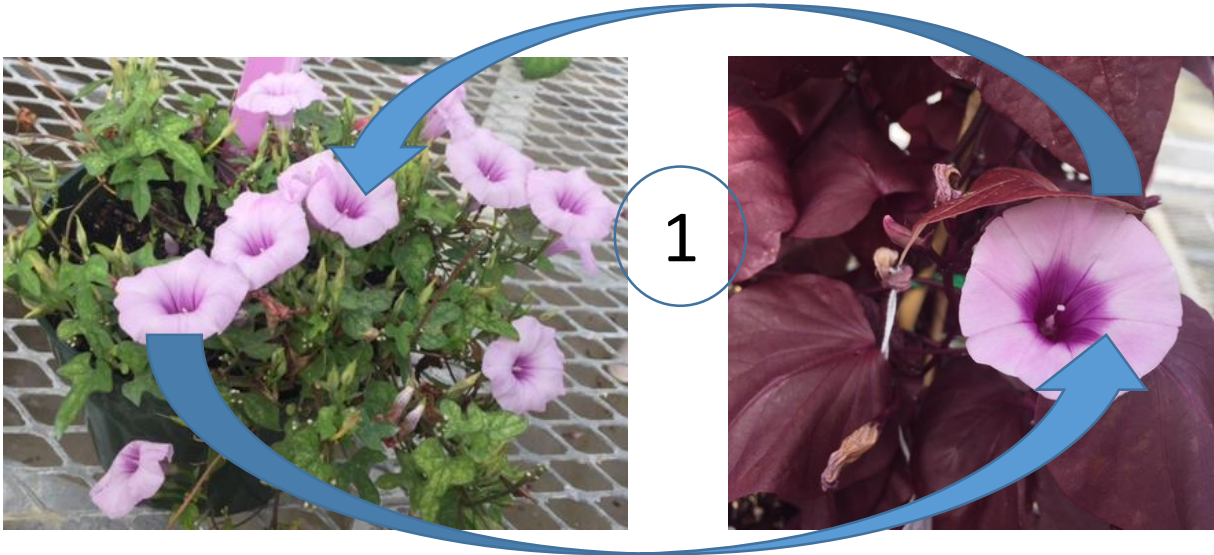


# Key attributes for OFSP Marketing, Processing and utilization?





# Creation and improvement of sweetpotato varieties



Identify cultivars with characteristics of interest and do hand crossing

Produce thousand of seeds



Field trials to screen varieties with traits of interest and advance them

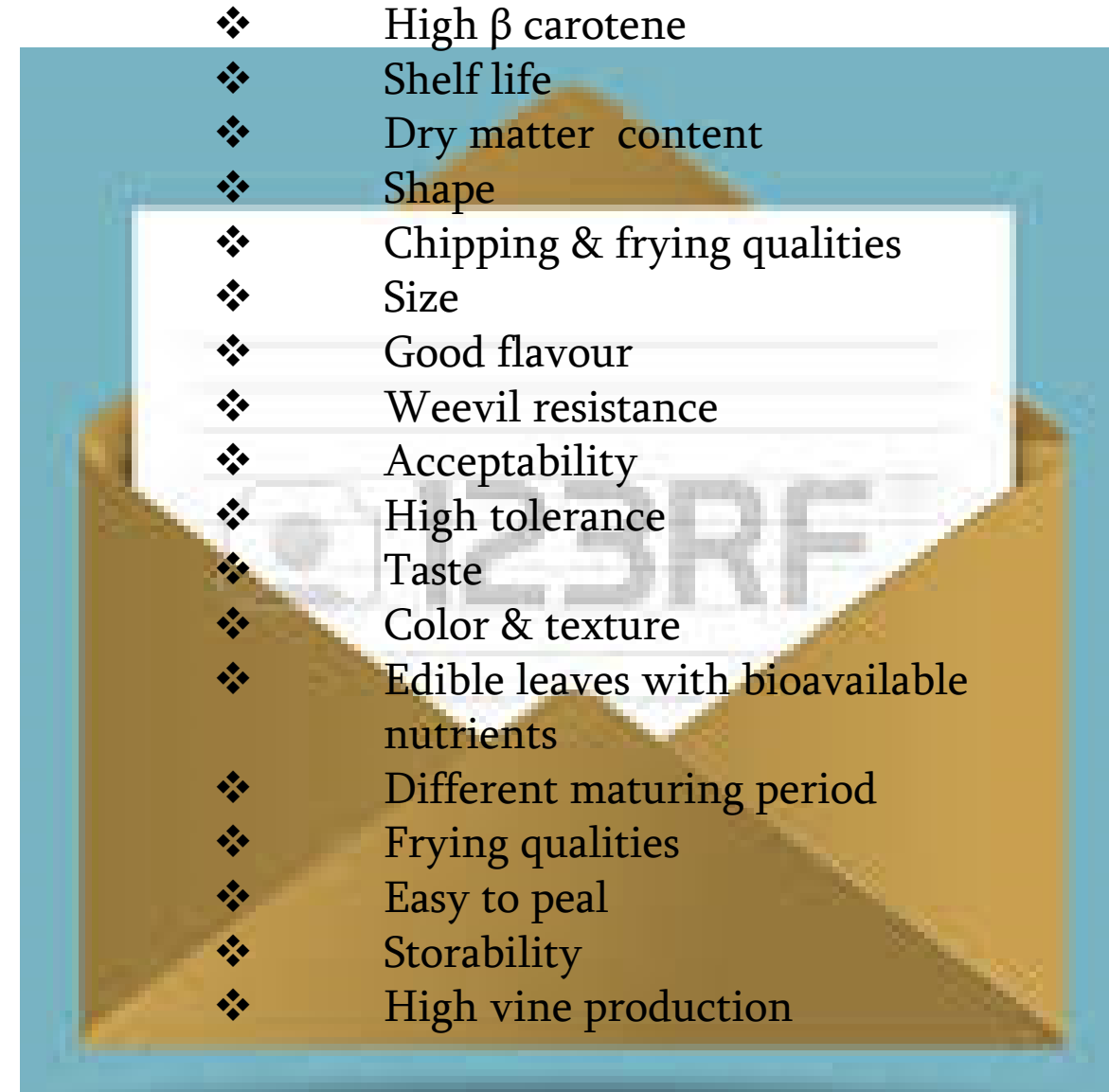
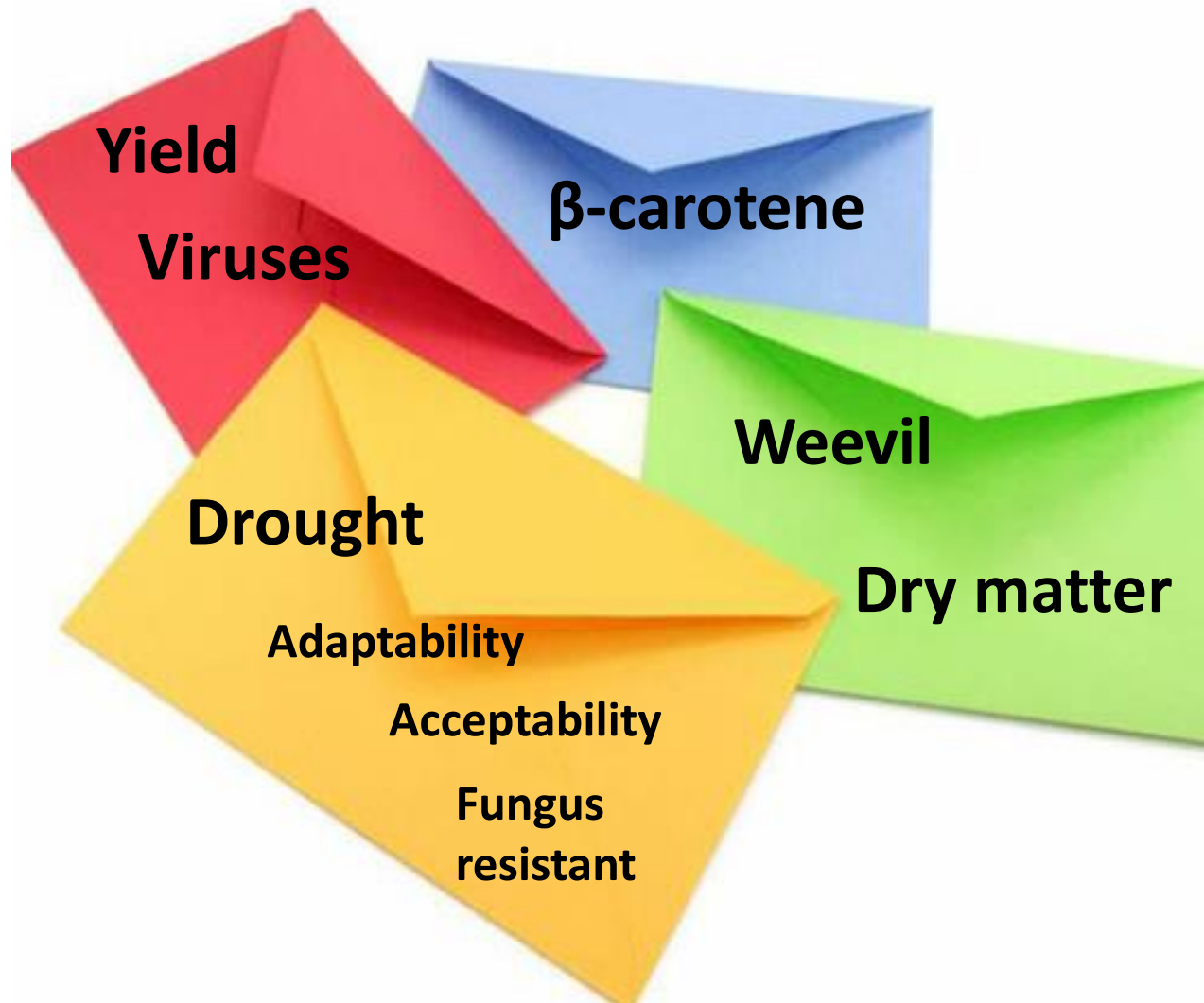


# Phenotypic selection of genotypes with desired traits



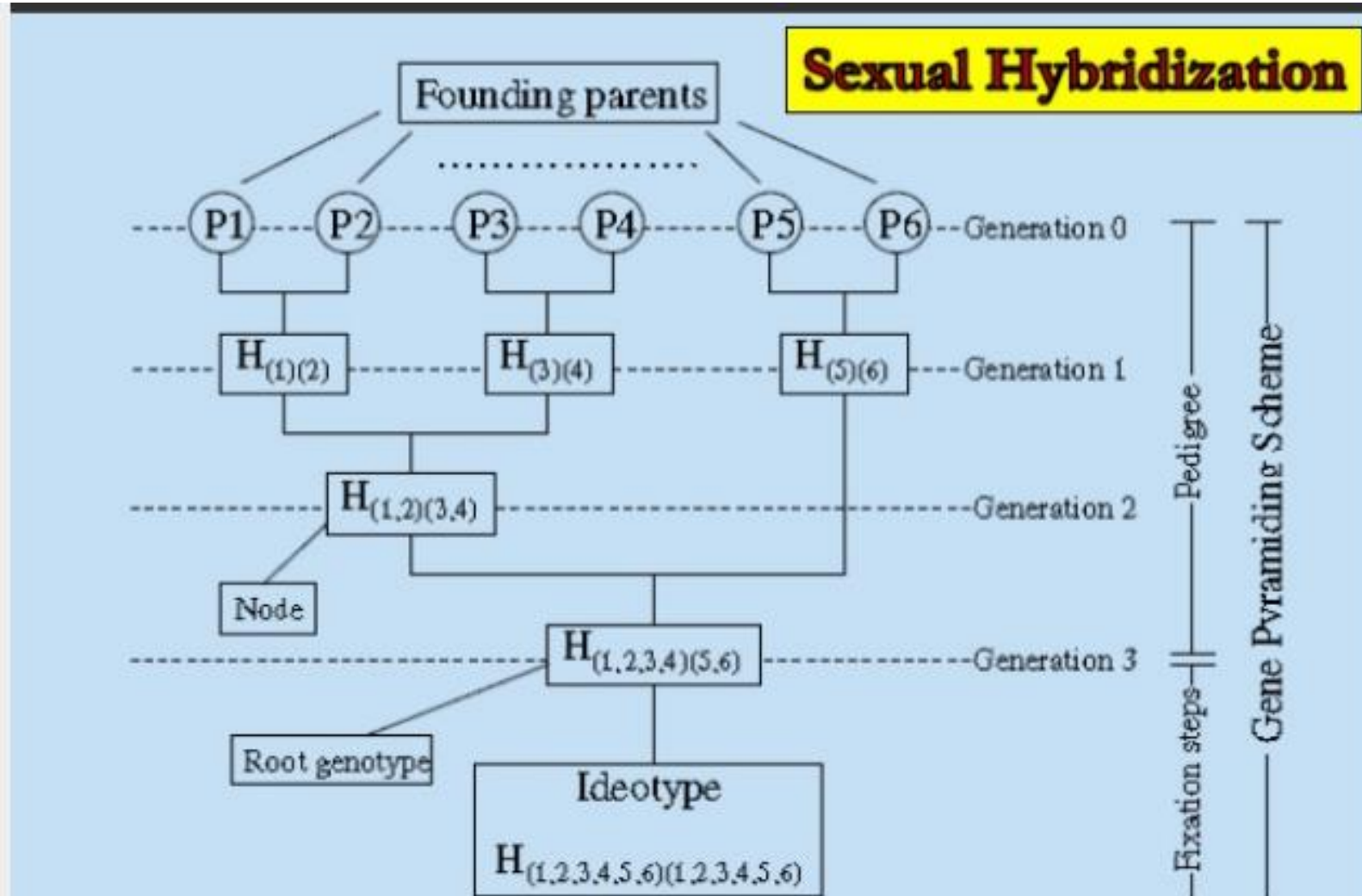
- A tedious long process but yields result
- Subject to the environment
- Traits may not be expressed even when the gene of interest is present

# The breeders goals vs marketing, processors and utilization CoP wish list

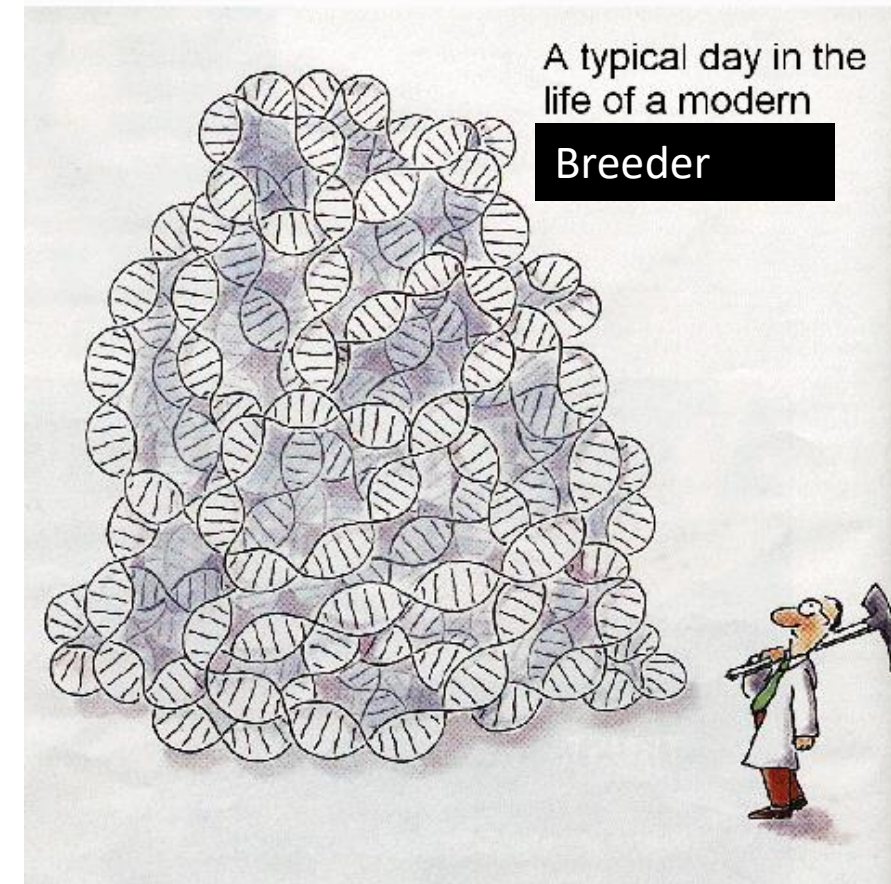




# What is needed and how do we get there? - Gene pyramiding



**Figure 1.** A distinct gene pyramiding scheme cumulating six target genes. (Hospital et al., 2004)



Photos credit-Google images

# Targeted breeding – “the Next generation plant breeding”

The scientific basis of all crop improvement is the identification of the genes that encode and regulate specific phenotypic characteristics or traits of benefit



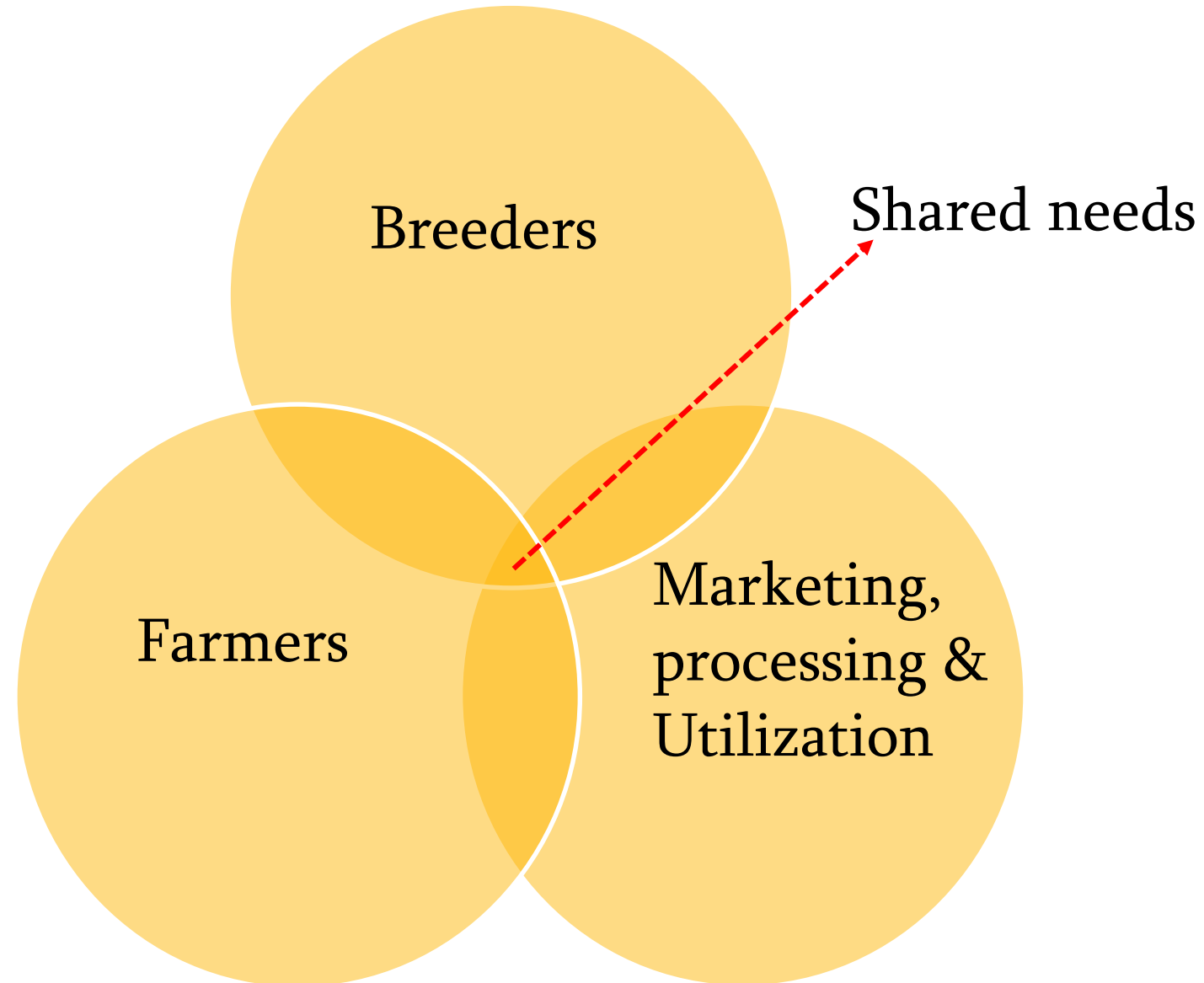
- Select parents with superior traits
- Predict genetic gains
- Choose traits with higher heritability
- Identify clones
- Identify cultivars with similar trait
- Cuts cost and time of production

The current challenge is to identify these genes.



# What can be done

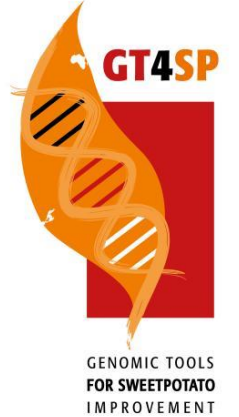
- ❑ Active networking and steady exchange of information and knowledge
  - creating synergies
  - making outcomes more accessible to end-users
- ❑ Leads to
  - Better coordination offer opportunities for innovation
  - building on shared needs
  - achieve economies of scale while avoiding overlaps





# Way forward

- Apply technologies and innovations widely for sweetpotato selected value chains, to competitively and sustainably increase productivity; and contribute to agricultural growth, nutrition and food security in Africa
- Programs/collaborations should therefore enhance the overall economic welfare of farmers, producers and marketers throughout the value chain
- The stronger the links among these different parts, the better the whole system will function



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*And... all of the others who inspire us to address inequity and create opportunity...*



# Asanteni

