Public Variety Releases

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CGIAR is a global research partnership for a food-secure future
10,000 scientists and staff in 96 countries
• CIMMYT’s Maize Germplasm Bank contains over 28,000 unique collections of maize seed and related species from 88 countries

• The collections a source of diversity to breed for traits such as heat and drought tolerance and resistance to diseases and pests, and to improve grain yield and grain quality.”
Maize ME’s

Highland
Upper humid mid-altitude
Lower humid mid-altitude
Dry mid-altitude
Wet lowlands
Dry lowlands
What is the Purpose of Variety Release and Registration?

- To ensure **DUS** varieties enter the market
- To ensure that the variety has a minimum value for cultivation and use (**VCU**)
- Stimulates use of increasingly better varieties
- Stimulates good breeding programs

Protection for the breeder and the farmer
Many of the hybrids on the market in Zimbabwe are CIMMYT germplasm

- CIMMYT is the largest contributor of improved maize germplasm annually as international public goods.
- Over 54% of publicly bred maize varieties released in the developing world are reported to have CIMMYT's elite maize germplasm
Germplasm uptake

More than 150 varieties developed at CIMMYT Zimbabwe are currently under commercialisation in Africa and Asia.
Maize Variety Releases in 2015

- **Malawi** - 4
  - Drought
  - Drought + low nitrogen
  - Drought + low nitrogen + QPM

- **South Africa** - 10
  - Pro-vitamin A

- **Zambia** - 8
  - Drought

- **Zimbabwe** - 4
  - Drought

- **Swaziland** - 1
  - Drought

Legend:
- **A**: Pro-vitamin A
- **△**: Drought
- **▼**: Drought + low nitrogen
- **○**: Drought + low nitrogen + QPM
## Variety Releases Across countries

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## Best bet legumes

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CIMMYT Variety Allocations

- Every year CIMMYT conducts **Regional Maize Trials**
  - 75% entries come from CIMMYT, 25% from partners
- In August, an invitation is sent out with Regional Trial report for requests for CIMMYT products.
- Requests are sent to GMP Director
- Allocations are made in September-October
Access to CIMMYT Maize Inbred lines

- CIMMYT's and other public elite maize inbred lines and trait donors for:
  - Abiotic stress tolerance (drought, Low N, Low pH)
  - Biotic stress resistance MLN, MSV, GLS
  - Nutritional quality (QPM, provitamin A)
  - Free to access on request for breeding purposes from breeders or gene bank
MLN Screening Facility at Naivasha
15 second-generation CIMMYT-derived MLN resistant hybrids presently under NPTs in Kenya, Tanzania and Uganda. Will be available for seed companies
MLN Resistant Hybrids (Naivasha; 2016)
Tackling the MLN Challenge
Moving beyond our “comfort zone”

• MLN Phytosanitary CoP established in Feb 2016
• Trained our national partners in southern Africa; MLN surveillance ongoing in Malawi, Zambia and Zimbabwe
• Negotiated with MLN diagnostics providers and brought down the cost of MCMV immunostrips!
• Awareness creation on MLN-free commercial seed production through AFSTA, EAGC, EAC, etc.
Access to Maize Hybrid

Hybrids

- Given on confidential basis
- Institution become the maintainer of the hybrid
- Unique name can be given
- Given for commercialization for specific countries on request
- Rights remain with CIMMYT
- CIMMYT doesn’t release varieties but only through partners
- Seed companies promise commercialize and scale the hybrid within given time frame
Access to Maize OPVs

- Maize OPVs
  - The institution that registers becomes the maintainer
  - Agrees to provide foundation seed to other companies
  - Other companies may commercialize the same OPVs using same name but their own packaging material
Support from CIMMYT

• CIMMYT provide small quantities of breeders’ seed
• VCU and DUS data for registration
• Hybrid seed production information
• Technical backstopping
• Seed production training
• Socio-economics studies
Germplasm transfer

- Over the past four years approximately **823 seed shipments** have been made
- **1.3 million envelopes** to 315 institutions
- Seed shipments are accompanied by the required phytosanitary documentation and a Standard Material Transfer Agreement (SMTA).
Thank you for your interest!