CIMMYT-Eastern Africa Regional Office (CIMMYT-EARO)

Maize Regional Trials Conducted by CIMMYT-EARO: Results of the 2016 Season

M.B Jumbo, Y. Beyene, D. Makumbi, L. Machida, L.M. Suresh, A. Tarekegne, S. Mugo, Tsedeke Abate, M. Regasa, M. Gowda, A. Bruce, V. Chaikam and B.M. Prasanna

CIMMYT, Nairobi, Kenya

Introduction

New and improved maize hybrids, developed by the CIMMYT Global Maize Program, are available for uptake by public and private sector partners, especially those interested in marketing or disseminating hybrid maize seed across eastern Africa and similar agro-ecological zones. Each year, CIMMYT Global Maize Program conducts regional hybrid maize trials through a network of national agricultural research system (NARS) institutions and private seed companies in eastern and southern Africa under various management and environmental conditions. Pre-commercial maize hybrids developed by the CIMMYT-Africa team, along with relevant checks from private seed companies and National Agricultural Research Programs are included in these trials.

The objectives of these regional trials are:

- 1. To provide data to support variety registration and release of new improved pre-commercial hybrids from CIMMYT on a regional as well as country basis;
- 2. To provide data to guide maize varietal release, use and dissemination in target geographies;
- 4. To identify improved hybrids that can potentially replace old and outdated commercial varieties in the market;

- 4. To provide a common platform for the partners to assess/evaluate their products from breeding programs;
- 5. To monitor the breeding progress and enhance regional genetic gains in maize breeding and product development; and
- 6. To enrich and widen the genetic base of improved maize germplasm through germplasm exchange.

Based on the performance data generated through these Regional Trials, a set of pre-commercial maize hybrids have been identified by CIMMYT-EARO for potential allocation to partners. Institutions belonging to the National Agricultural Research Systems (NARS) and seed companies, especially in eastern Africa, are hereby invited to apply for permission for allocation of these pre-commercial maize hybrids for registration, seed scale-up and delivery to the farming communities. Product performance and other relevant information for the promising hybrids available for allocation are attached.

Interested institutions are requested to submit a letter of interest along with duly-filled application form (template attached) by <u>7th February 2017</u> by email to <u>Dr B.M. Prasanna</u>, Director, Global Maize Program, CIMMYT (<u>b.m.prasanna@cgiar.org</u>), with copy to <u>Nick Davis</u>, Program Manager, Global Maize Program, CIMMYT (<u>n.davis@cgiar.org</u>).

Details of Regional Trials conducted by CIMMYT in East Africa in 2016

Click each link to access file:

- 1. EHYB16 Early/extra-early maturing elite pre-commercial hybrids regional trials
- 2. EIHYB16 Early-intermediate maturing elite pre-commercial hybrids regional trial
- 3. IHYB16 (Set 1) Intermediate maturing elite pre-commercial hybrids regional trial
- 4. IHYB16 (Set 2) Intermediate/Late maturing elite pre-commercial hybrids regional trial
- 5. MLN tolerant hybrids MLN trials of promising candidate hybrids

CIMMYT Regional Trial Location information

CIMMYT-EARO Pre-commercial Hybrids (2016) Available for Allocation to Partners

In 2016, approximately, 95% of entries were contributed by CIMMYT-Africa. The data on grain yield and other relevant traits of entries across contrasting environments in East Africa is analyzed, and the performance of selected CIMMYT pre-commercial hybrids available for uptake presented in the **Tables 1-5**.

Interested NARS and seed companies are hereby invited to apply for permission to register and commercialize selected maize hybrids from the available products. Kindly submit a letter of interest/application along with duly-filled application form (template attached) to **Dr B.M. Prasanna**, Director, Global Maize Program, CIMMYT (**b.m.prasanna@cgiar.org**) with copy to **Nick Davis**, Program Manager, Global Maize Program, CIMMYT (**n.davis@cgiar.org**) by **7**th **February 2017**. CIMMYT Maize Product Allocation Committee will review the applications received by the due date and will take decisions on allocation of specific products based on clear criteria designed to promote equitable support to our valued partners (see Appendix 1).

Once CIMMYT finalizes its allocation decisions, applicants will be notified as to the success or otherwise of their applications by **10**th **February 2017**. CIMMYT will maintain absolute confidentiality of commercially sensitive information (e.g., pedigree of an allocated hybrid) for all the allocation decisions and related data. Successful applicants will be expected to demonstrate to CIMMYT the path of their commercialization efforts within reasonable timeframe, and are expected to sign an agreement to that effect.

Further information regarding the product allocation process is given in **Appendix 1** below. For any further clarifications in this regard, please do not hesitate to contact any of the following contact persons in CIMMYT:

Dr MacDonald B. Jumbo CIMMYT Maize Breeder +254 704 187 167 b.jumbo@cgiar.org

Nicholas Davis

Program Manager, CIMMYT GMP +254 (0) 71 389 6281 N.Davis@cgiar.org

Dr B.M. PrasannaDirector, CIMMYT Global Maize Program
b.m.prasanna@cgiar.org

APPENDIX 1: ACQUISITION AND USE OF CIMMYT MAIZE OPEN-POLLINATED VARIETIES AND HYBRIDS FOR COMMERCIALIZATION

The principal purpose of CIMMYT's germplasm development work is to provide improved, adapted and stress tolerant varieties with particular benefit to resource-poor farmers. CIMMYT has produced both open-pollinated (OPV) and hybrid varieties of maize suited to various agro-ecological zones. Furthermore, there are varieties with specific traits, such as Quality Protein Maize and Pro-vitamin A maize. Institutions (both public and private) may apply for permission to register CIMMYT varieties in specified countries within the framework of the applicable laws, rules and regulations of those countries, harmonized regional seed laws, and the Standard Material Transfer Agreement (SMTA) of CIMMYT. In granting permission to an institute to register CIMMYT varieties, CIMMYT retains all legal rights which it currently has in such varieties, including parental lines, and since CIMMYT Germplasm is an International Public Good, the Partner Institution may not acquire any ownership interest in the varieties or parental lines. In many instances, seed of CIMMYT varieties, and their parents, is already in the possession of parties other than the Institution to which permission is granted, and therefore such varieties may continue to be used for testing and research purposes, or commercialization in other countries.

The approach used by CIMMYT in granting permission to institutions to register CIMMYT maize varieties differs depending on whether the variety is an OPV or hybrid.

Open-Pollinated Varieties:

OPVs are easier to produce, may be recycled and are therefore more appropriate to resource-poor farmers. Consequently, when granting an institution permission to register CIMMYT OPVs, the agreement states that the partner institution agrees to make breeder and foundation seed of these CIMMYT OPVs available to all interested parties subject to:

- a) All applicable laws, rules and regulations in the specified countries and regions
- b) Reasonable notice (6 months) being given by other interested parties for quantities of breeder and foundation seed to be purchased from the partner institution.
- c) Other interested parties commercializing seed of these CIMMYT OPVs under the variety name given upon registration but using their own seed packaging.

In this case, the OPV is registered by an Institution, who becomes the maintainer of the variety, but on condition that other institutions may multiply and market the seed within the framework of a country's seed regulations. The institution registering the CIMMYT-derived improved OPV may give the OPV a unique name.

Hybrids:

By nature, hybrids are uniquely defined by their parental combination, while they are more difficult to produce than OPVs and the grain from hybrids should not be planted as seed. Consequently, permission to register hybrids is granted to particular institutions on a confidential basis. The institution becomes the maintainer of the hybrid variety, and may give the hybrid a unique name. The institution is not obliged to publicly reveal the source of the variety nor provide parental seed to other interested parties.

Allocation Process for CIMMYT's Elite Pre-commercial Products to Interested Institutions

Institutions that are interested in registering CIMMYT elite products (pre-commercial maize hybrids or OPVs) may contact CIMMYT Global Maize Program Director (b.m.prasanna@cgiar.org) or Global Maize Program Manager (n.davis@cgiar.org) and request for permission to register varieties of their choice, based on the web announcement. If more than one partner is interested in registering a particular product in a given geography, CIMMYT reserves the right to allocate the variety to only one partner based on an evaluation of the following criteria:

- 1. Investment by the applicant in variety testing and seed production.
- 2. Likelihood that seed will become widely available to smallholder farmers.
- 3. Likelihood that seed will become widely available as soon as possible.
- 4. Diversity among suppliers of improved seed.
- 5. Diversity of regions where the variety will be marketed.
- 6. Track record of the applicant as a CIMMYT collaborator.
- 7. Relative importance of a variety for the variety portfolio or success of an applicant.

Once a particular product has been allocated to an applicant, based on review of the letter of interest and filled product allocation request form, the successful applicant will receive from CIMMYT a product allocation certificate and an agreement for signing. Once the process of agreement signing is completed, the applicant will be responsible for further testing, registration and commercialization of the allocated product in the target geography for which the product is allocated by CIMMYT. CIMMYT will provide small quantities of breeders' seed of the hybrid (and its parents, where appropriate) to enable the Institution to begin testing and multiplication of the product.