The National Variety Release Committee (NVRC) announced the release of three new improved chickpea varieties with better yield, disease resistance (wilt, root rot and ascochyta blight) and early maturity for production in high altitude areas (1800-2800 m) of Ethiopia. This was the outcome of a research collaboration between International Center for Agricultural Research in the Dry Areas (ICARDA), Ethiopian Institute of Agricultural Research (EIAR) and ICRISAT. The breeding lines for these varieties were provided by ICRISAT and ICARDA. Chickpea crop improvement research collaboration among the three institutes has led to the release and promotion of more than 20 varieties in Ethiopia so far.

The released varieties are:

**DIMTU (DZ-2012 CK-031/ICCV-10107)**

DIMTU variety gave higher yield compared to the standard check, Minjar and the local check by 15.34% and 29.71% and had 100-seed weight advantage of about 78.92% and 144.71% over the standard check (Minjar) and local check respectively.

**HORA (DZ-2012 CK-001/FLIP 04-9C)**

The HORA variety is mainly proposed for its reasonably good grain yield in potential chickpea growing areas. Its seed yield advantage as compared to the standard check (Ejere) is 22.9% and local check (DZ 10-4) is 70.39% higher.

**DHERA (DZ-2012 CK-009/FLIP 0163)**

DHERA’s better seed yield advantage over standard check Ejere (10.7%) and local check (53.51%) along with very erect growth makes it suitable for mechanical harvesting.

No fertilizers, irrigation or pesticides were used on any of these varieties to achieve the increased grain yield during the trials. When compared to standard and local checks, all three varieties showed promising results on disease resistance.

The trials were conducted by researchers from the Debre Zeit Agricultural Research Center (DZARC), EIAR. Main contributors from DZARC, EIAR, were national chickpea breeders Dr Million Eshete, Mr Dagnachew Bekele, Mr Ridwan Mohammed and Mr Nigussie Girma.

The National Chickpea and Lentil Research Program, DZARC, will maintain 50 kg breeder seed of these varieties every year and plans are underway to get these varieties into sustainable seed systems and promotion under Tropical Legumes-III and USAID scaling projects.

“Tropical Legumes Phase III (TL-III) project funded by the Bill & Melinda Gates Foundation presents an opportunity for different CGIAR centers to synergize their comparative advantage and expertise for the benefit of the smallholder farmer. Apart from ICARDA and ICRISAT, others like International Center for Tropical Agriculture (CIAT) and International Institute of Tropical Agriculture (IITA) were also involved in working together with their respective mandate legumes while exchanging experiences and lessons for the benefit of smallholder farmers in the dryland tropics,” said Dr Emmanuel Monyo, Theme Leader - Seed Systems & Project Coordinator, TL-III, ICRISAT.

Ethiopia supplies more than 60% of Africa’s global chickpea exports. In Ethiopia, 80% of the chickpea is marketed locally while 20% is exported mainly to Asia and Middle East. With this, the net household income from chickpea trade is estimated at US$1,500-2,000 per ha.

**Project:** National Chickpea and Lentil Research Program, Ethiopia; TL III and USAID scaling project

**Investor:** Bill & Melinda Gates Foundation, USAID, Government of Ethiopia

**Partners:** EIAR, ICARDA and ICRISAT

**CGIAR Research Program:** Grain Legumes

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**Photo:** Oumar Diop, AMAP.

Chickpea farmer in Ethiopia.
Building efficient supply chains in Nigeria

Building efficiencies across the supply chain, from input supply to marketing, is key to achieving success. To this end a first of its kind ‘Agricultural Inputs Fair’, was organized in Kano, Nigeria. The aim was to provide farmers with good quality inputs (improved seed varieties, agro chemicals and equipment), at affordable prices from genuine sources, and link them to agricultural extension services.

At the fair, nearly 70% (4,500 kg) of assorted improved varieties of seeds brought to the fair by different seed companies were sold to farmers, amounting to NGN 903,600 (US$3,204).

The three-day programme was attended by around 1,800 farmers of which 484 were women. This overwhelming response has enthused the organizers to hold such input fairs on an annual basis to provide the necessary platform for interaction with farmers and agricultural inputs companies for higher productivity and income to farmers.

Invitees to the opening ceremony included Dr Abdullahi Umar Ganduje, Executive Governor of Kano State, and Prof Hafiz Abubakar, Deputy Executive Governor of Kano State; Dr Muhammad Sanusi II CON, Emir of Kano represented by Hakimin Kura, Alhaji Bello Ado Bayero; Nasiru Gawuna, Hon. Commissioner of Agriculture; Ahmad Rabi’u Bako, Hon. Commissioner of Natural Resources, Commerce & Industry and Murtala Sule Garo, Hon. Commissioner of Ministry for Local Government Affairs.

Under the auspices of the Agricultural Transformation Agenda Support Program Phase 1 (ATASP-1) and USAID Groundnut Upscaling Project, ICRISAT Nigeria in partnership with Fadama Development project Additional Finance (Fadama III AF), organized the agricultural inputs fair, hosted at Hadejia-Jama’are River Basin Development Authority premises Kura, Kura LGA, Kano State from 26 to 28 May.

Project: Agricultural transformation agenda support program phase 1 (ATASP-1) and USAID Groundnut Upscaling Project,
Investor: Nigeria Federal Government through Africa Development Bank, World Bank and USAID
Partners: Fadama Development project Additional Finance (Fadama III AF) and ICRISAT
CGIAR Research Program: Dryland Systems, Dryland Cereals and Grain Legumes.

InterDrought-V Conference 2017

Interested in sharing your research or networking and learning about ongoing research, globally, in the areas related to different aspects of drought, crop physiology, genomics, biotechnology, or integrated breeding for crop improvement. Then register for the InterDrought-V conference.

The conference topics include:
- Setting the biophysical context
- Maximizing dryland crop production
- Plant productivity under drought
  - Effective capture of water
  - Transpiration efficiency
- Vegetative growth
- Reproductive development, yield, yield quality
- Breeding for water-limited environments
- Agronomic management for water-limited environments

Abstract submission deadline: 15 Dec 2016 (For details click here)
Conference dates: February 21-25, 2017
Venue: Hyderabad International Convention Centre (HICC), Hyderabad, India
Welcome

Dr Eng Hwa Ng joined ICRISAT on 28 June as Senior Scientist (Breeding). Dr Hwa holds a Doctorate in Plant Breeding from Texas A&M University. He joins us from DuPoint, Philippines, where he worked as a Research Scientist. He has close to 10 years of work experience in USA and south-east Asian countries.

In his free time he loves to travel, cook and practice archery.

We welcome Dr Eng Hwa to the ICRISAT family and wish him all success.

New Projects

Scaling-up and popularization of high yielding pigeonpea hybrids for enhancing productivity of small and marginal farmers of Maharashtra, Karnataka and Odisha states of India

Principal Investigator: S P Wani / C V Sameer Kumar
Period: 2016 – 2017
Investor: National Food Security Mission, Ministry of Agriculture and Farmers Welfare, Govt. of India
Synopsis: The project objectives are as follows:

▪ To enhance the productivity of pigeonpea-based systems using high-yielding hybrids along with improved land, water and crop management practices including soil test-based nutrient management options.

▪ To promote cultivation of early maturing high-yielding pigeonpea hybrids in alfisols and medium duration hybrids in vertisols.

▪ To develop village-level seed systems to achieve self-sufficiency in seeds of farmer-preferred improved varieties of pigeonpea.

▪ To build capacity of farmers and Self Help Groups (SHGs) in sustainable pigeonpea production technology components as well as sensitization of the policy makers for sustainable pigeonpea production techniques in the targeted states.

▪ To provide technical back-stopping for refinement of pigeonpea production technologies and also undertake strategic research to address the constraints identified by the farmers and other stakeholders in the target areas.

Documenting Adoption of Natural Resource Management (NRM) Practices: Evidence on Microdosing and Conservation Agriculture in Zimbabwe and Niger

Principal investigator: Kizito Mazvimavi
Period: 2016 - 2017
Investor: FAO, Italy
Synopsis: This study focuses on determining the levels of adoption of Microdosing (MD) and Conservation Agriculture (CA) in Zimbabwe and Niger by undertaking the following activities:

▪ Description and clear definition of MD and CA technologies, including what qualifies as adoption of MD and CA within each country context;

▪ Compilation and collation of existing data on MD practices in Zimbabwe and Niger and CA practices in Zimbabwe;

▪ Based on the existing data sets: estimation of current levels and intensities of adoption of the NRM technology to produce the relevant country-practice combinations reports;

▪ Conduct a survey of MD adoption by households in Zimbabwe (Nkayi, Hwange, Zhishavane, Chivi, Masvingo, Chirumanzu, Tsholotsho and Inzia districts), representative at the level of the most significant regions in the country for this technology, using hand-held devices with digital and geo-referenced data collection forms developed by the ICRISAT data handling team. The data will be synchronised with ICRISAT Data Servers in real time.)