

Department of Research and Specialist Services (DR&SS)

Report for the week ending 13 February 2015

Robert Mugabe Award for outstanding Research to a team or individual

- The Research Council of Zimbabwe awarded the National Maize Breeding Team in Crop Breeding Institute the “*Robert Gabriel Mugabe Award for Outstanding Research*” at the 10th Zimbabwe International Research Symposium, held from the 12th to the 13th of February 2015 in Harare. The Award was in recognition of the team’s efforts in improving maize production in Zimbabwe through availing high yielding drought tolerant varieties.



The “*Robert Gabriel Mugabe Award for Outstanding Research*” Trophy and a cheque for US\$15,000.00



Cheque presentation to the team by the Acting President, Hon. E. D. Mnangagwa.



Appreciation of the trophy by the DR&SS Team.

Source of pictures: DR&SS

- Some of the team's outstanding achievements cited for the decade 2005-2015 included seven white, early to medium maturity maize hybrids, which combine tolerance to drought and low soil nitrogen. The hybrid ZS261 (released in 2006) is a quality protein maize (QPM) variety, bio-fortified with high lysine and tryptophan and was contracted for production to one seed company. Hybrids ZS263 and ZS265 (both released in 2011), are drought tolerant. ZS263 was commercialized by one seed company and the current market mover, ZS265 from the breeding programme was commercialized by two seed companies contracted by Government. Hybrids ZS269, ZS271, ZS273 and ZS275 were released in April 2014 and are still at the *Breeder's* and *Foundation* seed bulking stages.
- The national maize breeding team partnered with CIMMYT-Kenya to use conventional breeding methods to develop insect (stem borer) resistant varieties for the country and already two commercial insect resistant varieties have been identified for release consideration by the end of 2015 or early 2016.
- The maize breeding team is currently cooperating with another CG centre - International Institute of Tropical Agriculture (IITA) located in Nigeria and HarvestPlus in Mexico – to develop Provitamin A (ProA) maize aimed at addressing nutrition security in the country.
- In recognition of the team's sterling effort in using plant breeding to address low maize productivity on smallholder farms, the Drought Tolerant Maize for Africa (DTMA) Project spearheaded by CIMMYT, bestowed the "*Best Maize Breeding Team in Southern Africa*" Award to the team, a record five times in the period 2008/09, 2009/10, 2010/11, 2011/12 and 2013/14 and in 2012/13, the team was second runner up.

Scientific papers presented by DR&SS staff at the Zimbabwe International Research Symposium

The Department presented 12 scientific papers at the 10th Zimbabwe International Research Symposium on Science and Technology. These included:

1. Poultry litter as nitrogen supplement to hay fed to indigenous Sabi sheep by **T. S. Senda, J. L. N. Sikosana, G. Sisito** and **M. Musasira**.
2. The role and adoption of forage legumes in small scale crop-livestock enterprises in the Wedza District by **C. S. Kapembeza, C. P. Mudzengi, S. Mushapaidze, L. Taderera, A. Tigere, G. Mufugami** and **I. Makani**.
3. Assessing environmental suitability for Livingstone potato (*Plectranthus esculentus*) and Cocoyam (*Colocasia esculenta*) production in Zimbabwe by **D. Kutwayo, D. Hikwa** and A. Chemura.
4. Evaluation of benefits of maize/bean intercrops in Zimbabwe by **J. Hodzi** and **B. Mutari**.
5. Timing of spray application for the management of cotton bollworms in Zimbabwe by **R. Mapuranga, F. Jimu** and **W. Mubvekeri**.
6. The effect of different bending intensities on growth characteristics, yield and quality of roses (*Rosa hybrida* l.) by **F. S. Chihobvu, T. O. Nyarumbu, V. Chingwara, C. Mahoya** and **D. Kutwayo**.

7. Efficacy of new conventional insecticide, Cartap Hydrochloride 50 SP, on the control of cotton red bollworm (*Diparopsis castanea*) in Zimbabwe by **F. Jimu, R. Mapuranga** and **W. Mubvekeri**.
8. Effect of different nitrogen levels on protein content of upland rice and influence of grain moisture content on milling recovery under Lowveld conditions of Zimbabwe by **G. Mtetwa, Z. Muchingami** and **N. Chirinze**.
9. Evaluation of advanced common bean (*Phaseolus vulgaris* L.) genotypes under rain-fed multi-environment conditions in Zimbabwe by **B. Mutari** and **J. Hodzi**.
10. Efficacy of *Carica papaya* leaf extracts on growth of *Fusarium lateritium* *In vitro* by **P. Chidoko, N. Mwatsiya**, A. Chemura and **D. Kutywayo**.
11. Agronomic and economic performance of coffee-banana intercropping systems in smallholder coffee sector of Zimbabwe by **D. Kutywayo, C. Mahoya** and A. Chemura.
12. Characterisation and biodiversity conservation of Bambara groundnut (*Vigna subterranea*): Experiences from Mutoko District of Zimbabwe by D. Mwenye, **O. Chipfunde** and **R. Musango**.

Strengthening controls of food safety threats, plant and animal pests and diseases for agricultural productivity and trade in Southern Africa (SFS-ASTF) Project Inception Workshop

- The inception workshop for this project was held at the Holiday Inn, Harare on 12-13 February 2015. A plan of action was agreed upon and will be implemented from March 2015.