



Zimbabwe Plant Breeders Association

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NEWSLETTER

ZPBA Newsletter Issue 1 of 2018

IN THIS ISSUE

In the News

- **Meet the 2018-2019 EXECUTIVE**
- **Root crops in Zimbabwe: A case for Sweet potato by Godwill MAKUNDE**
- **Prof P. Tongoona Symposium on 25th January, 2018 in pictures**
- **Demand-led Plant Breeding Approaches training workshop- what the participants said**

Opportunities

- **UK PhD training**
- **Online training- Feeding the hungry planet**
- **A Seed Inventory Management System/ software**

1. WHO IS ZPBA- Zimbabwe Plant Breeders Association

ZPBA is a **membership-based, not-for-profit, non-political, professional association** of Zimbabweans based locally or abroad active or interested in plant breeding and/or plant breeding-related fields (e.g. seed agronomist, seed inspectors, seed technologists, geneticists, germplasm conservation specialists, biotechnologists, molecular biologists, etc.) launched on the **26th of January, 2016** at Holiday Inn, Harare.

ZPBA hopes to contribute towards agricultural and industrial development in Zimbabwe through creating a platform for information exchange and sharing amongst plant breeders and related professionals, contributing towards policy dialogue, building capacity in both the public and private sector through relevant training.

ZPBA is governed by an **elected Executive Committee**, which **derives its powers** from the **membership** and functions through an **appointed Secretariat**.

Read more <http://zimbabweplantbreedersassociation.org.zw/about-us/>



MEET THE 2018-2019 ELECTED EXECUTIVE



PRESIDENT, Mr Dean MUUNGANI



VICE PRESIDENT, Dr. Cosmos MAGOROKOSHO



SECRETARY, Ms Laura KARADZANDIMA



TREASURER, Mrs Tambudzai CHIKUTUMA



COMMITTEE MEMBER, Dr Lewis MACHIDA



COMMITTEE MEMBER, Dr Shorai DARI



COMMITTEE MEMBER, Mrs Mercy HODZA



COMMITTEE MEMBER, Dr Xavier MHIKE



COMMITTEE MEMBER, Dr Joe MUSHONGA



IMMEDIATE PAST PRESIDENT, Mr Justify SHAVA

SUB COMMITTEES

Finance & Administration

1. Muungani Dean
2. Chikutuma Tambudzai
3. Mushonga Joe

Training, Events & Technical

1. Dari Shorai
2. Magorokosho Cosmos
3. Machida Lewis

Membership, Public Relations & Communication

1. Karadzandima Laura
2. Hodza Mercy
3. Mhike Xavier

2. IN THE NEWS

2.1 WAY FORWARD FOR ROOT CROPS IN ZIMBABWE: A CASE OF SWEET POTATO [*IPOMOEA BATATAS* (L.)]

By Godwill S. Makunde, G.Makunde@cgiar.org, Tel: +258 82 513 5177

International Potato Center, Av. FPLM 2698, Maputo, Mozambique.



Cooked purple-fleshed sweet potato variety

Sweet potato ($2n = 6x = 90$) known as Mbambaira/Mabura and Imbambaila in Shona and Ndebele dialects respectively is hexaploid in nature. The crop has no documented history of introduction in Zimbabwe. Only three types according to flesh colour (white, yellow and orange) are grown in Zimbabwe despite the rich genetic diversity known to exist in sweet potato. White flesh is dominant an indication of consumer preferences in high dry matter, further revealing the way the crop is utilized-boiling and roasting at household level.

In the current newsletter, discussions will reveal the useful genetic diversity in sweet potato, how the crop suits different processing industries, challenges faced by the crop in terms of research and seed systems in Zimbabwe. Apart from being an energy source, the orange- and purple – fleshed sweet potatoes are rich sources of micronutrients and anti-oxidants beneficial to human health. The orange-flesh are rich sources of beta-carotene a precursor to Vitamin A. Benefits of vitamin A are well documented. In neighbouring countries such as Mozambique and Malawi, orange-fleshed sweet potato is processed into juice, jam, flour for bread and bread related products. Meanwhile, the purple-fleshed types, have high dry matter contents with a very good taste and contain antioxidants and anti-inflammatory nutrients – primarily anthocyanins in the form of peonidins and cyanidins in their roots. Extracts from the highly anthocyanins pigmented sweet potato showed increased activity of two key antioxidant enzymes – copper/zinc superoxide dismutase (Cu/Zn-SOD) and catalase (CAT)

that fight heavy metals such as mercury, cadmium or arsenic which might be in the diet and oxygen free radicals which might damage the epithelial cells in the human body. The anthocyanins are also valuable for their anti-inflammatory health benefits. Additionally, PFSP is used in natural food colouring - either fresh foods or a variety of processed snacks.

In Zimbabwe, sweet potato production is faced with many challenges. There is no breeding program devoted to it. Currently, over 30 unimproved clones are cultivated across the country. Tapping/exploiting the known sweet potato genetic resources becomes impossible without a breeding program. The absence of a formal or well-defined channel to supply quality planting materials (vines) at affordable prices to smallholder farmers poses a serious threat to sweet potato production in Zimbabwe. In addition, rainfall is unimodal in Zimbabwe and, in some places, dry periods between growing seasons can be 4-8 months long. This poses great challenges in conservation of planting material (vines) from one season to another. The challenges raised in the current introductory remarks on sweet potato will be discussed in detail in the coming newsletters.

2.2 THE PROF. PANGIRAYI TONGOONA SYMPOSIUM & AWARD CEREMONY 'FROM ART TO SCIENCE IN THE SEED SECTOR - - in pictures



A Big Thank you to the sponsors/ donors (SeedCo, ZSTA, ZPBA) and Presenters

NOTE: A DVD with all the proceedings is available- contact secretariat



2.3 THE DEMAND LED PLANT BREEDING WORKSHOP, 19-22 FEBRUARY, 2018 AT ACCI-UKZN

What the participants said

On what did you like best....

'Principles of demand-led planting breeding looks at the needs of the whole value chain rather than at the needs of farmers only as this ensures adoption of a new variety after release. The need to do market research in order to come up with trait prioritization for the breeding program' ...*Nomusa Muguti, CTDT*

"The workshop participants were drawn from both the public and private sector making it so interestingly participatory"*Rainos Mashongera, NTS*

The modules covered during the training workshop are very relevant to the work CTDO is doing in Plant Genetic Resources Farmer Field Schools. There has been a gap in the PPB/PVS Farmer Field School Curriculum on markets and this was covered during the training. The training modules use participatory tools which can be used to interrogate issues and set relevant breeding objectives... *Hilton Mbozi, CTDO*

On how can this be leveraged....

'This new approach should be incorporated into Plant Breeding Courses in Universities. Perhaps ZPBA should ask for another session for train the trainer program such that there are certified ZPBA Demand Led Plant Breeding facilitators/ trainers. Through ZPBA these can be engaged as guest lecturers. Training in plant breeding should be broader to include business aspects as proposed by the DLB. ZPBA to draft outlines of modules for Plant Breeding courses for universities to ensure wholesome and practical education of Plant Breeders....*Frank Magama, TRB*

On would you recommend the training to someone and why

"Yes I would recommend the book to others because it gives a new dimension to plant breeders, to think of marketing of the product (cultivar) before they even produce it. This will increase the likelihood of success on the market" ... *Kufa Mutsengi, BUSE*

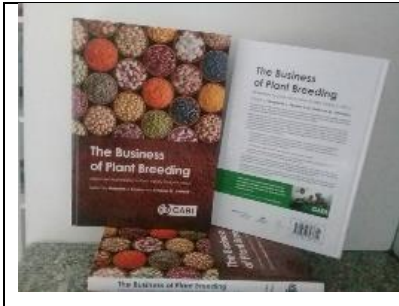
'Yes I would recommend this course especially to new breeders and even non breeders in the industry as it makes the whole chain of events meaningful. As we saw the marketing guys had lots to comment on'... *Neil Saunders, Klein Karoo*

Any other comment...

There is need to develop a program to roll out demand-led plant breeding program on a pilot basis. Members of the association can fund raise. ZPBA should also advocate for the introduction of a demand-led plant breeding module in agriculture colleges and universities.

Participants should be given tasks to implement this new approach and a follow up meeting can be organized during the 2018/19 season.... *Hilton Mbozi CTDO*

A big THANK YOU to the Demand led Plant Breeding module team, facilitators & sponsors



Limited copies of the book on which the course is based available from ZPBA, contact secretariat

'The Business of Plant Breeding: Market-led Approaches to Plant Variety Design in Africa' edited by Gabrielle J. Persley and Vivienne M. Anthony. CABI 2017

3. OPPORTUNITIES

3.1 Opportunity for PhDs in UK for international students.

<https://www.nottingham.ac.uk/research/beacons-of-excellence/future-food/studentships.aspx>

3.2 Now open for all, there are courses by world renowned scientists and you get a certificate if you pass.

<https://courses.sdacademy.org/learn/feeding-a-hungry-planet-agriculture-nutrition-and-sustainability-april-2018>

3.3 A seed inventory management tool ideal for emerging small to medium sized seed companies and breeding programs. This software is available for sale, see details below

The software is capable of tracking seed inventory and produces quality records, a means of controlling seed stocks from delivery through processing to sales in a simple and logical manner. The software is intuitive to use, keeps a strict balance of all seed stocks and has a point of sale module to monitor sales and customers.

SEED INVENTORY MANAGEMENT SYSTEM

Seed Management <ul style="list-style-type: none"> • Crops • Growers • Packaging • Processing • Seed Bag • Seed Grade • Seed Class • Variety • Year 	Seed Processing <ul style="list-style-type: none"> • Seed identifier • Seed Delivery • External Seed Packaging • Seed Processing • Seed Donations • Seed Balance Sheet • Seed Tracking 	Seed Sales <ul style="list-style-type: none"> • Product Management • Customer Management • Credit Note • Point Of Sale 	Reports <ul style="list-style-type: none"> • Seed Sales Reports • Seed Processing Reports • Transactions Reports • Tracking Reports
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MUKUSHI SEEDS

Address: 17.5 km Lomagundi Road, Mount Hampden, Harare, Zimbabwe
Cell: +263776404044
Email: j.macrobert@gmail.com



4. ZPBA MEMBERSHIP

4.1 Membership benefits include

Professional and personal development; **Shared costs on human resource development**; Networking; **Timely Communication (especially for events, internships, job vacancies, scholarships)**; Voting rights; **Discounted rates for events**; Sense of pride in the profession and industry

4.2 Membership Fees

The 2018 subscriptions are now due and these have been maintained at the previous levels.

The **categories and annual membership fees** are listed below:

i.	Ordinary membership	\$100.00
ii.	Student membership	\$10.00
iii.	Retired membership	\$50.00
iv.	Corporate membership	\$250.00

The fees can be paid quarterly or half-yearly but this will attract an extra \$5.00 charge.

Banking details are as below

Account Name: Zimbabwe Plant Breeders Association

Account No.: 1096005470194

Bank Name: FBC Bank Limited; Branch: Borrowdale, Harare

Branch Sort Code: 8127; Swift Code: FBCPZWHA

NEW!!! Now you can also pay by Ecocash

Ecocash Merchant Code: 188268

Please inform ZPBA once you make payment so that we can track it

Read more <http://zimbabweplantbreedersassociation.org.zw/membership/>

5. ZPBA CONTACT DETAILS

ZPBA mobile phone: + 263 (0)784 618719; (send your name if you want to be on the ZPBA WhatsApp group)

ZPBA email: zimplantbreedersassociation@gmail.com

ZPBA website: <http://zimbabweplantbreedersassociation.org.zw/>

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