



## **COMMUNIQUE**

**THE 1<sup>ST</sup> CONTINENTAL SYMPOSIUM ON HONEY  
PRODUCTION, BEE HEALTH**

**AND POLLINATION SERVICES IN AFRICA**

**6-8 SEPTEMBER, 2015**

**SAFIR HOTEL, CAIRO, EGYPT**



## I INTRODUCTION

1. **The 1<sup>st</sup> continental symposium** on honey production, bee health and pollination services in Africa was held at the Safir Hotel, Cairo Egypt from 6-8 September, 2015
2. **The specific objectives of the Symposium** were to provide an opportunity for highlighting recent developments, exchanging knowledge and new ideas between MS representatives of the relevant ministries, CVOs, beekeepers, representatives of national beekeepers associations, scientific research community, legal experts on honeybee production, bee health and pollination services in a stimulating environment.
3. **The Workshop** was attended by 101 participants including Member States, Regional Economic Communities, private sector practitioners, eminent scientists and researchers, and sector experts. Forty Member States, four RECs and international organizations were represented. Member States represented included Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Chad, Comoros, Congo, Cote d'Ivoire, Djibouti, Democratic Republic of Congo, Ethiopia, Egypt, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. There was also representation from Germany. RECs in attendance were COMESA, IGAD, ECCAS, CEBEVIRHA. AU technical agencies included AU-IAPSC and AU-IBAR. There was a strong attendance from the Arab Beekeepers Union and the host country.
4. **Opening Ceremony:** Dr. Simplicie Nouala, Chief Animal Production Officer AU-IBAR Introduced the Symposium by welcoming participants and highlighting the need for participants to reflect on the Symposium theme of the Future of the African Honeybee within the context of Africa's Agricultural Transformation Agenda which set out the aspirations of Africa's political leadership for the continent's agricultural sector development over the next decade. Dr. Nouala also

outlined the objectives and structure of the Symposium. This was followed by a Welcome Speech by Prof Ahmed A. El-Sawalhy, Director of the African Union Inter-African Bureau for Animal Resources (AU-IBAR). The workshop was officially opened by the representative of the Minister of Agriculture and Land Reclamation of Egypt, Prof. Abdelmenem El Bana.

5. **The First Plenary Session** was a platform for two keynote addresses that set the scene of the rest of the workshop. The keynote by Dr. Wolfgang Ritter on Bee Diseases: Examining Options for their Management gave an overview of honeybee diseases on the African continent, and an analysis of the impact of diseases of global economic importance on the African honeybee with the observation that while these diseases such as American foul brood have been present in the continent for a long time, they do not impact on African honey bee population in the catastrophic proportions evident in other regions. He emphasized the need for Africa to examine and replace some of the traditional beekeeping practices such as night harvesting that mask diseases, and to develop its own surveillance systems and to base models for response on a deeper understanding of the African honeybee and the management practices on the continent rather than indiscriminate adoption of practices from other regions. The second keynote by Prof. Peter Kofi Kwabong on the Bee Pollination Industry in Africa: Status, Challenges and Options for Enhancement underlined the fact that growth and harnessing of Africa's honey bees is imperative if Africa is to feed her growing population. The presentation outlined the important roles of the honey bee in crop, livestock and natural ecosystems, and focused on the Global Apiculture Pollinator Initiative which facilitates awareness raising, networking and policy engagement, with projects in Ghana, Kenya and South Africa. He emphasized the need for Africa to conduct research and generate data to understand the African honeybee and harness it for pollination, and for integration of the beekeeping and crop sectors, and for policies and incentives to promote pollinator friendly practices.
6. **Terms of Reference of the Parallel Sessions.** Dr. Simplicie Nouala provided guidelines for the three parallel sessions: Parallel Session I: Trade and Market Access and Impact of Environmental Stresses. Parallel Session II: Honey Bee Diseases and Capacity, Technology Development and Transfer and lastly Parallel Session III: Beekeeping Industry in Africa, Policy, Institutional Environment & Livelihoods, and Pollination Industry. The aim of the parallel sessions was to create space for delivery of presentations on focused topical areas, engagement and discussion. Group work would focus on capturing areas where there was knowledge and the enablers were known and which could easily be leveraged for

the development of the sector; areas where information was lacking, highlighting the gaps; and priority areas for action.

## II. PARALLEL SESSIONS

7. **Parallel Session I: Trade and Market Access and Impact of Environmental Stresses** were facilitated by Abdelfattah Mabrouk, AU-IAPSC, with two working groups; the 1<sup>st</sup> one on: Trade and Market Access, and the second one on: Impact of Environmental Stresses. Nine papers presented at this session included:
- A keynote/introductory address by Dr. Christian Maus, on the Impact of Environmental Stressors on Apiculture in Africa;
  - Impacts of Climate Variability and Change Beekeeping Productivity by Goodluck Malisa;
  - Assessing the Use of Crop Protection Products for Potential Risks to Honey Bees by Dr. Christian Maus;
  - Options for Bees Protection against Harmful Effects of Pesticides by Zafack Joseph;
  - Addressing barriers to market access and trade in African bee products and services by Bosco Okello;
  - Honey Residues Monitoring: Samples collected from three East African countries markets (Uganda, Kenya and South Sudan) by Ashjan Edouard;
  - Labellisation des Miels et Valorization des Specifications regionals by Andriananonjy Fidy ;
  - Honeybee colony Marketing and its Implications for Queen Rearing and Beekeeping Development in Werilek district, Northern Ethiopia by Teweldemedhn;
  - The Arab Beekeepers association by Ebrahim Ali Mady.
8. **Parallel Session II: Honey Bee Diseases and Capacity, Technology Development and Transfer** were facilitated by Wolfgang Ritter with two working groups; the 1<sup>st</sup> one on: honey Bee Diseases and health risk, and the 2<sup>nd</sup> one on: Capacity, Technology Development and Transfer. Eight papers presented at this session included:
- A keynote/introductory address: Bee Diseases, Health Risks and their Management in Africa by Mike Allsopp;
  - The Status of Honeybee Pests in Central Uganda by Robert Kajobe;
  - Profiling of Honey Bee Viruses in Kenyan Honey Bee Colonies by Irene Onyango;
  - Occurrence of Nosema species in Honey Bee Colonies in Kenya by Wanjama;
  - Particularity of Treatment of Formic Acid against Varroa Destructor Ectoparasite of Apis Mellifera in Tunisian Conditions by Faten Ben Abdelkader;

- Preliminary Observations on Enemies of Wild and Domesticated Colonies of Honeybee (*Apis mellifera adansonii* L.) in the Villages of Miti-Civanga-Tshibinda sector located in the vicinity of Kahuzi Biega National Park, Kabare territory, South Kivu Province, eastern DR Congo by Theodore Munyuli;
- Quality Assessment of the Performance of Wonchi Beekeepers Association; the Case of Wonchi District, South West Shoa Zone of Oromia, Ethiopia by Taye Beyene;
- Evaluation of Transitional and Modern Hives for Honey Production in Mid-Rift Valley of Ethiopia by Taye Beyene.

9. **Parallel Session III: Beekeeping Industry in Africa, Policy, Institutional Environment & Livelihoods, and Pollination Industry**, were jointly facilitated by Joseph Mamo (COMESA) and Bachirou Demsa from (ECCAS), with also two working groups: Policy, Institutional Environment & Livelihoods; and the 2<sup>nd</sup>: Pollination Industry in Africa. Eight papers presented at this session included:

- A keynote/introductory address: The Status and Future Prospects of Honeybee Production in Africa by James Moinde;
- A Review of African Honey Bee Races, their Behaviour and Potential for Increased beekeeping Production and Food Security by Cosmas Alfred Butele;
- Analysis of Farm Household Technical Efficiency in Small Scale Beekeeping Enterprise in Mwingi and Kitui, Kenya by A.I Omondi;
- The Honey Industry in COMESA: Opportunities and Challenges by Joseph Mamo;
- Enabling policies and the legal framework to support the growth of the honey industry; the case of Rwanda by S. Niyonnsenga;
- Beekeeping technology adoption in arid and semi-arid lands of Southern Kenya by James Muriuki;
- Strengthening the resilience of women and youth in Somalia to economic shocks through beekeeping by Erastus Mbugua;
- Beekeeping in Egypt by Elsayed Ibrahim Haggag;
- Honey bee keeping and livelihoods prospects related to fair trade in Oku region – North West Cameroon by Felix Meutchieye.

10. **Poster session:** were facilitated by Dr. Simplicie Nouala. Eighteen posters presented at this session included:

- Impact of American Foul Brood Disease on Sperm Polymorphism in Honey Bee by Mahmoud E. Zakaria;
- Opportunities and Challenges of Beekeeping in Chiro Woreda of West Hararghe Zone, East Oromia, Ethiopia by Temesgen Terefe;
- Etude des Essences Végétales Mellifères de L'Adamaoua au Cameroun by Zacharie Mbou *et al.* ;

- Le Conditionnement des Produits Apicoles pour L'Export au Cameroun by Michael Tchana *et al.*;
- Creating Employment for Nigeria Youth through Modern Beekeeping by Michael Adedotun Oke;
- The current and future prospects of the beekeeping industry in Kenya by Stephen. M. Kagio;
- Progress and challenges towards listing of Kenya in European Union market for export of honey and hive products by Kamau Samuel;
- The Pollination industry in Africa, challenges and options for enhancement by Jacqueline Gowe;
- Better positioning of the white honey value chain in the Kilum/Ijim Montane Forest areas of the North West Region of Cameroon by Akwa Ase I *et al.*;
- Biological control as potential means to protect honey bee colonies from driver ant (*Dorylus quadratus*) attack (Hymenoptera: *Formicidae*) in Tropical Africa by Nuru Adgaba *et al.*;
- African Honey as best Medicines: Apitherapy by Owona Fabien;
- Improving the impact of beekeeping through BNNS networking by Kabli Nabila;
- Evaluation du comportement hygiénique chez l'abeille tellienne *Apis mellifera intermissa* au niveau de la station expérimentale Mehdi Boualem INRAA, Baraki by Kabli Nabila ;
- Les processus de récolte de miel à GAEL à Koumra au Tchad by Yamidjimte Roy ;
- A preliminary survey of seven bee viruses using RT-PCR in Tunisia, North Africa by Taoufik Ben Hamida;
- The bacteriological prevalence of *Paenibacillus* larvae spores in naturally contaminated Tunisian honeys by Taoufik Ben Hamida;
- First molecular identification of *Nosema ceranae*, a microsporidian parasite in the tellian honeybee *Apis mellifera intermissa* in Tunisia by Taoufik Ben Hamida;
- Traditional Smoker and its risks by Temesgen Terefe.

## Outcomes

### 11. Status of knowledge, gaps and priority actions arise from groups work discussion:

Participants after listening experts in honey production, bee health and pollination services; went for groups work and below are some key outcomes by domain regarding the status of knowledge, gaps and priority actions in apiculture:

| <b>Domains</b>                      | <b>Knowledge</b>  | <b>Gaps</b>   | <b>Priority &amp; Actions or recommendations</b>   |
|-------------------------------------|---|---|--|
| <b>1. trade &amp; market Access</b> | Existence of legislation<br>Residual & monitoring plan<br>Partnership with international companies                                  | Accredited labs<br>Packaging challenges<br>Underdeveloped infrastructure for honey marketing & trade<br>Communication inefficiencies<br>Poor market linkages & Less organized market for bee products | Strengthen org structure<br>Financial & technical support<br>Regulate application of pesticides<br>Promote African brands<br>Information communication mechanism (website)<br>Incentives for processing & exporting<br>Monitoring (criteria) for adulterated products to be placed on the world agenda. There is need to modify procedures for (AOAC 99.12) through the international honey commission- AU IBAR should follow this up as a decision from the meeting<br>Development of the bee products value chains- institutional approach<br>Development of markets/ bilateral relationships to facilitate regional trade |
| <b>2. Pests and diseases</b>        | Low at a continental level and not part of the agenda on a regional scale<br>Some countries have better knowledge e.g. South Africa | Huge  | Information needs to be disseminated<br>Set an agenda on the issues<br>Protocol based assessment of Pests & Diseases   |

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|   |   |   | <p>Preventive measures on the importation of foreign bees</p> <p>Understanding of bee behaviour</p> <p>Networks establishments at all levels</p> <p>Promotion of daylight bee keeping practices and other BP bee keeping techniques</p> <p>Establish a bee pest – disease data system</p> <p>Training courses for bee keepers and lab staff</p> <p>Improve identification of bee keepers diseases</p> <p>Abandon use of medicaments unnecessarily</p> <p>Enhance Laboratory services - Set up of Bee research laboratories</p> <p>Bee surveillance system at all levels</p> |
| <p><b>3a. Pollination services</b></p> <p><b>Commercial</b></p> | <p>Available information in some countries e.g. South Africa</p> <p>Standard for commercial pollination is available</p> <p>Industrial/big farming operations</p> | <p>Lack of knowledge in most parts of Africa</p> <p>Not enough research on the crops that need to be pollinated</p> | <p>Develop more industrial bee keeping in Africa</p> <p>Improved planning &amp; management of operations</p> <p>Implementation of standards for colonies</p> <p>Cooperation with other bee keepers</p> <p>Training of bee keepers</p> <p>Quality equipment – standards etc</p>  |
| <b>3b. Traditional</b>  | Small holder farming  | Insufficient bees   | Capacity: Training ( practical) in basic  |

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| <p><b>/natural<br/>pollination<br/>services</b></p> | <p>oriented, limited and no information/research etc<br/>Established near crops-<br/>integrated with farmers</p>                     | <p>Lack of farmer knowledge on the benefits<br/>Lack of trained &amp; skilled bee keepers- no information available<br/>Bad bee keeping practices<br/>Inadequate research on pollination</p> | <p>bee keeping / manpower etc<br/>Correct us/application of pesticides at small scale farmer level (knowledge of quantities, toxicity etc)<br/>Good communication between particles (Crop farmers &amp; Quality hives, Equipment etc.<br/>Awareness raising<br/>Good research on crop production and pollination<br/>Management of the ecosystem<br/>Systems for payment of pollination services</p> |
| <p><b>4. Policy</b></p>                             | <p>General agricultural policies in majority of countries<br/>Specific policies on bee sector in some countries eg. (TZ; ET) etc</p> | <p>Huge</p>  | <p>Include apiculture in the CAADP framework<br/>National policies of apiculture to be adopted<br/>Capacity enhancement<br/>Sensitization of the public on apiculture</p>  |

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|--|--|--|---|
| <p><b>5. Capacity technology development &amp; Transfer</b></p>            | <p>Good traditional knowledge<br/>Conducive climatic conditions<br/>Good will<br/>Availability of a progressive market</p> | <p>Poor hive technologies<br/>Insufficient hive management and skills<br/>No technology to match - Bee disease, pests<br/>Weak leakage between producer and market<br/>Inadequate policies &amp; laws<br/>Low participation by women<br/>Lack of skilled manpower<br/>Few technologies and inefficiently disseminated to the farmers</p> | <p>Control mechanisms for bee diseases<br/>Proper way of pesticides<br/>Improve market linkages<br/>Develop &amp; implement policies and laws<br/>Gender mainstreaming in the sector<br/>Develop independent bee training centre (theory &amp; practice)<br/>Adaptability of hives &amp; hive technology (design etc)<br/>Testing , validation and dissemination of developed technologies<br/>Policies of use of agrochemicals</p> |
| <p><b>6. Impact of Environmental stressors – natural &amp; manmade</b></p> | <p>Climate viability &amp; change<br/>Nutrition &amp;<br/>Deforestation</p>  |  | <p>Need more study to understand the situation and impact to be sure that appropriate action are taken.<br/>Risk to solve the wrong problem</p>   |

## 12. **Next steps - announcements**

Publication of papers in the bulletin of animal health in Africa and all participants will receive an electronic copy;

Report of the meeting will be shared with the participants;

Establish a task force to work on the recommendations to produce an action plan to start implementation in 2016;

Meeting of AAP assembly in November 14 – 16 in Zimbabwe;

Call for proposals announced for bee keepers' associations;

Consultancy services for experts.

### **Cairo, 8<sup>th</sup> September 2015**

Symposium participants