

Tropentag 2017 underlines its importance as world wide web for junior scientists

The Tropentag is a development-oriented and interdisciplinary conference. It addresses issues of resource management, environment, plant protection, agriculture, forestry, fishery, food, nutrition and related sciences in the context of rural development, sustainable resource use and poverty alleviation worldwide.

Students, Ph.D. students, scientists, extension workers, decision makers, politicians and practical farmers, interested and engaged in agricultural research and rural development in transition and developing countries had been invited to participate and to contribute. Consequently, the conference in Bonn brought together more than 800 especially young scientists of 58 countries from all over the world. The participants came together to discuss the conference theme »Future Agriculture: Social-ecological transitions and biocultural shifts« in oral contributions and poster sessions.

It was reported that agricultural systems in developing countries are currently undergoing drastic changes. System-immanent attributes such as visions, aspirations, cultural specifics and production factor availability shape the response of land users to growing external pressures such as climate change, market demands, land

degradation, emerging diseases, pests, and policies. In addition to such social-ecological transitions, substantial biocultural shifts occur and are imposed by centrally-planned establishments of large-scale intensification corridors and protection zones, or are associated with infrastructure development and urbanisation processes. The wide array of resulting response pathways and land use or production strategies may include intensification, diversification, and specialisation, but can also lead to abandonment of land, migration and conflicts.

The implications of such developments and change processes for food security, resource base quality, rural well-being, and in general for the future of agriculture appeared to be very often critical where no cooperation between universities, consultancy, practical extension services and farmers existed. The results provoked an essential need of science based networks for rural development.

The Tropentag plays its role especially in the support of cross-generational, international and multidisciplinary interactions between scientists forming a future oriented scientific youth.

Source: www.tropentag.de



Foto: © Tropentag

Sehr geehrte Mitglieder



Wer die Mitteilungen der DPG im zurückliegenden Jahr 2017 verfolgt hat, konnte die deutliche Verstärkung der Förderung von Aktionen beobachten, deren Ziel die

Information der Öffentlichkeit war. Stände auf der Grünen Woche, bei der Ideen-Expo oder die Koordination des Tages der Faszinierenden Pflanze sind Beispiele dafür.

Unsere Nachwuchsvertreter, insbesondere Herr M.S. Sebastian Streit, hatten den größten Anteil bei der Umsetzung der Aktivitäten. Hinzu kam eine hervorragend ausgearbeitete Exkursion, Fortbildungen für den Nachwuchs und ein Zukunftsworkshop der ‚Jungen DPG‘, wie sich unser Nachwuchs zukünftig nennen möchte.

Herr Streit wird den Vorstand zum Jahresende verlassen. Wir alle danken ihm für seinen herausragenden Einsatz für die Weiterentwicklung der Jungen DPG.

Eben hier möchte der Vorstand auch zukünftig ansetzen: die DPG, allem voran der Nachwuchs, soll verstärkt in internationale Netzwerke eingebunden werden. Dreh- und Angelpunkt dafür werden die Arbeitskreise sein, die international aktiv sind, allen voran der AK Phytomedizin in den Tropen und Subtropen, der im Tropentag des Partners ATSAF ein ausgezeichnetes junges Forum hat, auf dem er die Junge DPG einbinden kann. Diese Ausgabe der Phytomedizin ist der Darstellung dieser Kooperationsmöglichkeiten gewidmet.

Bitte beachten Sie auch, dass wir heute fristgerecht dazu aufrufen, Kandidaten für die Wahl von Vorstandsmitgliedern zu benennen.

Ihr Johannes Hallmann

Wir gratulieren zum Geburtstag

zum 95.

Dr. Helga Kühne 16.03.1923

zum 93.

Dir. u. Prof. Dr. Theobert Voss 02.01.1925

zum 92.

Dipl. Biol. Gerhart Schneider 18.03.1926

zum 91.

Dipl. Ing. Sabine Koehne 01.02.1927

Prof. Dr. Friedrich Großmann 16.03.1927

zum 90.

Prof. Dr. Heinrich Carl Weltzien 07.03.1928

Prof. Dr. Helmut Lyre 22.03.1928

Dr. Siegfried Hahn 24.03.1928

zum 89.

Prof. Dr. Hans Scheinpflug 11.01.1929

Dr. Georg Maas 31.03.1929

Prof. Dr. Dr. h. c. Berndt Heydemann

27.02.1930

zum 88.

Prof. Dr. Dr. h. c. Helmut Bochow 02.01.1931

zum 87.

Günther Krumrey 09.02.1931

zum 86.

Dr. Richard Ott 04.01.1932

Dr. Robert Eibner 15.03.1932

zum 85.

Dr. Josef Martin 05.03.1933

Dr. Eberhard Grigo 24.03.1933

zum 80.

Dr. Günter Hartmann 26.02.1938

Prof. Dr. Volker Zinkernagel 01.03.1938

zum 75.

Dr. Gisbert Zimmermann 05.01.1943

Dr. Jürgen Schulte zu Berge 11.01.1943

Prof. Dr. Dr. Wolfgang Zeller 12.01.1943

Dr. Wilhelm Wimschneider 24.01.1943

Dr. Helmut Baltruschat 24.02.1943

Dr. Peter Kraus 16.03.1943

Dr. sc. agr. Karel Veverka 18.03.1943

zum 70.

Dr. Walter Wohanka 08.01.1948

Dr. Dietmar Dehne 24.01.1948

Prof. Dr. Ludwig Roeb 17.02.1948

Dr. Sielke Sievers 22.02.1948

Dr. Volkmar Gutsche 23.02.1948

Prof. Dr. Dr. Christoph Künast 25.03.1948

zum 65.

Dr. Hans Günther Drobny 02.02.1953

Prof. Dr. Wolfgang Oßwald 24.02.1953

Hans-Jörg Wanner 25.02.1953

Mike Taylor 26.02.1953

Prof. Dr. Joseph-Alexander Verreet

15.03.1953

Dr. Rüdiger Scheitzka 17.03.1953

PD. Dr. Joachim Hamacher 19.03.1953

Dr. Udo Heimbach 21.03.1953

Dr. Martin Heß 28.03.1953

Vorstands- und Landessprecherwahlen 2018

Aufruf zur Kandidatennennung

Turnusgemäß ruft der Vorstand der Deutschen Phytomedizinischen Gesellschaft e.V. zur Vorstands- und Landessprecherwahl 2018 auf.

Gemäß der Satzung der DPG ist der 2. Vorsitzende, der Schriftführer und der Schatzmeister neu zu wählen. Erster Vorsitzender wird zum 1.1.2019 ohne erneute Wahl der jetzige 2. Vorsitzende, Herr Dr. Gerd Stammler.

Der bisherige 1. Vorsitzende, Herr Prof. Dr. Johannes Hallmann, wird 3. Vorsitzender.

Herr Prof. Dr. Holger Deising, scheidet Ende 2018 nach sieben Jahren aus dem Vorstand aus.

Wiedergewählt werden dürfen die Schatzmeisterin, Frau Dr. Monika Heupel, und die Schriftführerin, Frau Cordula Gattermann.

Der Vorstand bittet um Vorschläge für die Besetzung der betroffenen Vorstandspositionen.

Parallel zur Vorstandssitzung können Landessprecher gewählt werden. War früher der Landessprecher der Vorstand einer Landesgruppe, hat sich sein Profil mittlerweile geändert. Vorgeschlagen werden sollten Personen, die als Ansprechpartner für die DPG fungieren möchten, um Fragen der Phytomedizin, die in der Länderhoheit liegen, sach- und fachkundig in die Gremienarbeit einbringen zu können. Schlagen Sie also bitte auch Personen für diese Funktionen vor.

Alle Mitglieder der DPG sind bis zum 31.3.2018 aufgerufen, ihre Vorschläge zu richten an

Feldmann@phytomedizin.org

Ankündigung:
V. Urbane Pflanzen - Konferenz

URBANE PFLANZEN KONFERENZEN



Wie funktioniert Stadtgrün?

Selbstregulierende Ökosystemleistungen von grüner Infrastruktur

24.-25. April 2018



Die Tagung wird in einer Kooperation der Deutschen Phytomedizinischen Gesellschaft e.V. und der Deutschen Gesellschaft für allgemeine und angewandte Entomologie e.V. mit dem Institut für Geoökologie der Technischen Universität Braunschweig, der Beuth Hochschule für Technik Berlin und dem Julius Kühn-Institut Braunschweig durchgeführt.

www.upc.phytomedizin.org



Foto: © Strohbach

Impressum: Deutsche Phytomedizinische Gesellschaft e.V., Messeweg 11-12, 38104 Braunschweig

1. Vorsitzender: Prof. Dr. J. Hallmann (ViSDP)

Geschäftsführer: Dr. F. Feldmann feldmann@phytomedizin.org

Konto: IBAN: DE 7950 0700 1003 5184 8700, Deutsche Bank

Erscheint viermal jährlich. Sofern nicht anders gekennzeichnet: Bilder und Texte von Falko Feldmann

Grafik-Design: Corinna Senftleben, Braunschweig – Druck: Lebenshilfe Braunschweig gGmbH

Tropentag

International Conference on International Research on Food Security, Natural Resource Management and Rural Development

Seit 1997 organisieren die **ATSAF** (*Arbeitsgemeinschaft für Tropische und Subtropische Agrarforschung e.V.*) und die jeweiligen austragenden Universitäten alljährlich, üblicherweise in der dritten Septemberwoche, in Zusammenarbeit und mit Unterstützung zahlreicher Sponsoren, den Tropentag.

Die Konferenz begrüßt jedes Jahr zwischen 500 und 800 Teilnehmer, bietet einen exzellenten Überblick über die aktuelle tropenbezogene und entwicklungsorientierte Forschung und ist ein wichtiger Netzknoten für die deutsche und tropenorientierte Agrarforschung.

Thematisch immer aktuell, versucht der Tropentag die Position der Delegierten zusammenzufassen und durch Pressemitteilungen und -konferenzen in die Öffentlichkeit zu tragen. Im kommenden

Jahr 2018 wird der Tropentag erstmals in Gent stattfinden.

Die DPG ist Fördermitglied von ATSAF und unterstützt den Tropentag durch die aktive Mitarbeit des Arbeitskreises Phytomedizin in den Tropen und Subtropen. Wir gestalten eine Sektion Pflanzenschutz in den Tropen, sowie Postersessions zu Querschnitts- oder Schwerpunktthemen. Darüber hinaus unterstützen wir die Teilnahme von Nachwuchswissenschaftlern am Tropentag finanziell.

Zunehmend engagieren wir uns bei der Bildung internationaler Netzwerke insbesondere zwischen Studenten und Nachwuchswissenschaftlern.

www.tropentag.de



DPG/Enactus-Workshop auf dem Tropentag in Bonn 2017 (siehe S. 10)

Die DPG wird auf dem Tropentag in Gent zwischen dem 17. und 21. September 2018 einen Workshop zum Thema »Gesunde Pflanze - gesunder Mensch« durchführen.

Wenn Sie daran mitwirken möchten, melden Sie sich bitte unter Feldmann@phytomedizin.org

ATSAF Ehrenpreis
für unser Mitglied
PD. Dr. Marlene Diekmann



PD Dr. Marlene Diekmann promovierte und habilitierte im Fach Pflanzenschutz an der Universität Bonn. Nach langjähriger Auslandstätigkeit für das International Center for Agricultural Research in the Dry Areas (ICARDA) in Syrien war sie von 1999 bis 2015 als Beraterin in der Beratungsgruppe Entwicklungsorientierte Agrarforschung (BEAF) bei der Gesellschaft für Internationale Zusammenarbeit (GIZ) in Bonn tätig. Dort war sie hauptsächlich zuständig für die fachliche Strategieberatung der Consultive Group on International Agricultural Research (CGIAR) nach entwicklungspolitischen Kriterien und für die Nachwuchsförderung (Praktikanten, Diplomanden, Doktoranden). Von 2002 bis 2015 gehörte sie dem Vorstand der ATSAF e.V. an. Mit dem Ehrenpreis würdigt ATSAF Frau Diekmanns herausragendes Engagement in vielen Bereichen der Nachwuchsförderung und für die Vernetzung speziell der deutschen Universitäten und Forschungsinstitute mit den CGIAR Zentren, aus der vielfältige Forschungsmöglichkeiten und Karrierewege für den wissenschaftlichen Nachwuchs hervorgegangen sind.

Sie ist darüber hinaus Errichterin der Ausgleichsstiftung Landwirtschaft und Umwelt.

Für die DPG ist Frau Dr. Diekmann eine stete Mahnerin, nicht in den Bemühungen um den Pflanzenschutz in den Tropen nachzulassen, sondern die Stärke der DPG zu nutzen, um Netzwerke mit Organisationen aufzubauen und sich in Problemlösungen vor Ort einzubringen.

www.ausgleichsstiftung.org

Army Worm threatens food security all over Africa

Alarming news on *Spodoptera frugiperda* continue in DPG session at Tropentag 2017

In Africa Fall Armyworm (FAW), scientific name *Spodoptera frugiperda*, has the potential to cause maize yield losses in a range from 8.3 to 20.6m tonnes per annum, in the absence of any control methods, in just 12 of Africa's maize-producing countries. This represents a range of 21%-53% of the annual production of maize averaged over a three year period in these countries. The value of these losses is estimated at between US\$2,481m and US\$6,187m.

FAW should be expected to spread throughout suitable habitats in mainland sub-Saharan Africa within the next few cropping seasons. Northern Africa and Madagascar are also at risk. At the time of this document's publication, 28 countries in Africa have confirmed the pest on their territory (compared to 12 in April 2017).

A further nine countries have conducted or are presently conducting surveys, and either strongly suspect its presence or are awaiting official confirmation. Two countries have stated that FAW is absent. No information on FAW presence or absence could be gathered from the remaining 15 countries.

Control of FAW requires an integrated pest management (IPM) approach. Immediate recommendations include (i) raising awareness on FAW symptoms, early detection and control, including beneficial agronomic practices; (ii) creation and communication of a list of recommended, regulated pesticides and biopesticides incl. the corresponding appropriate application methods. Work should also start immediately to (i) assess crop varieties resistant or tolerant to FAW; (ii) introduce classic biological control agents from the Americas. As part of a conducive environment, policies should promote lower risk control options through short term subsidies and rapid assessment and registration of biopesticides and biological control products.

FAW is a moth that is indigenous throughout the Americas. It is widely agreed to be one of the most damaging crop pests in the Americas, feeding on over 80 different crops, including maize, rice, sorghum and sugarcane, as well as other crops, including cabbage, beet, peanut, soybean, alfalfa, onion, cotton, pasture grasses, millet, tomato, potato and cotton. Previously it had



Foto: © CABI

not been established outside the Americas, but its two strains have now appeared in Africa and are rapidly spreading throughout the tropical and subtropical regions of the continent. Its impact on maize yields in Africa has been, and is likely to continue to be, significant. FAW is capable of migrating long distances on prevailing winds, but it can also breed continuously in areas that are climatically suitable.

The first confirmed reports of FAW were from West Africa in early 2016. Research to date suggests that both strains of FAW entered Africa, perhaps as stowaways on commercial aircraft, either in cargo containers or airplane holds, before subsequent widespread dispersal by the wind occurred. The probability is high (>90%) that the introduction to Africa was from the characterised Florida strain of FAW, which is restricted to the eastern seaboard of the USA, and the Caribbean islands.

Maize is the most important staple cereal crop grown by smallholders in sub-Saharan Africa and is also one of the dominant cereals grown in most other African countries. It is grown across diverse agro-ecological zones where over 200 million people depend on the crop for food security. Maize accounts for almost half of the calories and protein consumed in eastern and southern Africa, and one-fifth in West Africa.

CABI (Centre for Agriculture and Biosciences International) conducted a household

socioeconomic survey in Ghana and Zambia in July 2017. Survey questions examined farmers' perception of losses specifically due to FAW over the last full growing season. Based on the survey results, the estimated national mean loss of maize in Ghana was 45% (range 22-67%), and in Zambia 40% (range 25-50%). Using the data from Ghana and Zambia, CABI estimated the potential impacts on national yield and revenue in 10 other major maize-producing countries that are likely to occur in the maize-producing seasons, assuming that the FAW will spread throughout all areas where it is predicted to survive.

Trade carries the risk of introducing pests to countries where they are not yet present – consignments of food and agricultural products being a particular risk. Thus countries in North Africa, Asia and Europe will wish to manage this risk, by placing additional production or handling requirements and conditions on exports from FAW-affected countries, with cost implications for the exporters. In June 2017 the first shipment (of roses) from Africa contaminated with FAW was intercepted in Europe.

However, National Plant Protection Organisations (NPPOs) in Africa with significant exports to Europe are aware of this situation, and are taking the appropriate measures to reduce the risk of FAW contaminated consignments being shipped.

Well-organised NPPOs supporting major

export sectors should be able to cope with this situation, but it could be problematic for countries where export certification is weaker and the agri-food export sector is less developed.

There is a large volume of literature on FAW control in the Americas, but the agricultural systems there are often very different from those in Africa. Few areas in the Americas have the small farm and field sizes that predominate in Africa.

Yields are much higher in the Americas, averaging over eight tonnes per hectare for maize, compared with around two tonnes per hectare in Africa. Genetically modified (GM) crops are also widespread in the Americas but are used in only a few countries in Africa. FAW causes damage by feeding on both vegetative and reproductive structures. Damage to the leaves of maize does not necessarily cause a loss of yield, because the plant is able to compensate for at least some loss of leaf area. This may lead to inaccurate perceptions of loss, and economically unnecessary interventions.

Young FAW larvae hide in the maize funnel during the day but emerge at night to feed on the leaves. Spray applications are therefore more likely to be effective if undertaken around dawn or dusk. Older larvae (which cause more damage) tend to stay inside the maize funnel and so are protected from spray application to the foliage. Pesticide applications should therefore be timed to coincide with the presence of the younger larvae. On small farms the cost of pesticide application can be reduced by only spraying affected plants. In Latin America, where planting takes place later, farms tended to show a more uniform distribution of the larvae (and higher levels of damage).

Numerous synthetic pesticides are able to kill FAW, and many are registered and recommended in Latin America.

These include pesticides from several different modes of action spanning the various WHO hazard categories, including some classified as highly hazardous (WHO Class 1b). A key issue around pesticide use in Africa is the risk to human health. Pesticides are frequently applied without sufficient safety precautions being taken, and there is growing evidence of pesticide poisoning – although so far not as a result of FAW control. Resource-poor farmers are often unwilling or unable to buy the appropriate

safety equipment. Highly hazardous pesticides should therefore never be recommended in Africa, and Class 2 pesticides avoided as far as possible. Many of the cheapest and most widely used pesticides in Africa fall into the mode-of-action classes to which resistance has developed in the Americas. It is not known whether the FAW populations in Africa were already resistant on arrival, but strategies should be devised and implemented to reduce the likelihood of pesticide resistance developing. Pests develop resistance to pesticides through repeated exposure of successive generations to chemicals with the same mode of action.

The following strategies should be implemented:

- A combination of control methods should be used, rather than relying only on pesticides
- Treating successive generations using products with the same mode of action must be avoided
- Pesticide application should be based on monitoring and thresholds, rather than being used as a prophylactic or preventative measure
- The manufacturer's recommended dose and concentration should be followed
- Pesticides should be purchased from registered dealers

The preferred approach to FAW control is Integrated Pest Management (IPM), utilising a combination of control methods. In Latin America IPM is seen most commonly in smallholder systems that are more similar to African farming systems than the large monocultures where Bt crops and/or calendar spraying are used. An important element of IPM is conserving the natural enemies of the pest. In Latin America, large numbers of parasitoids, predators and pathogens of FAW have been reported. Studies on what natural enemies are attacking FAW in Africa, what level of mortality they can exact, and how they can be encouraged, are required urgently. Given the dangers of chemical pesticides, the development of lower-risk approaches using biological pesticides for FAW is high on the list of near-term priority activities. CABI is conducting an analysis of biopesticides registered in 30 countries including those for FAW control, which will be published by German Gesellschaft

für Internationale Zusammenarbeit (GIZ). The report will make recommendations on regulatory issues affecting the availability and use of biological pesticides, priority biological pesticides for testing against FAW, and the support needed to test and register the products.

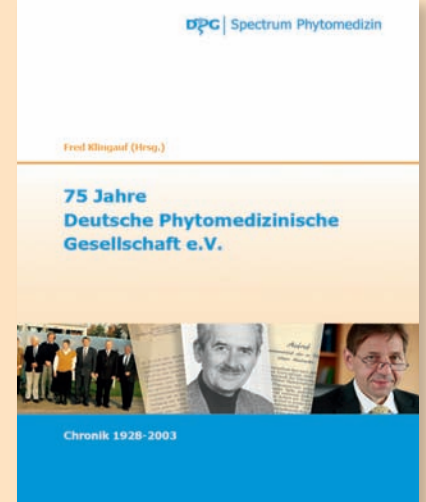
Source:

CABI September 2017: Fall Armyworm: Impacts and Implications for Africa

<http://www.invasive-species.org/invasive-species/spodoptera-frugiperda/>



Neuerscheinung



»75 Jahre DPG -
Chronik 1928 - 2003«

Herausgeber: Fred Klingauf

ISBN: 978-3-941261-14-3

Preis: 65 Euro

ab 15.12.2017 zu beziehen über
geschaeftsstelle@phytomedizin.org

Arbeitskreis Phytomedizin in den Tropen und Subtropen

The following presentations have been held in the DPG sessions. Abstracts are provided at the Tropentag website.

Optimisation of Effective Factors on Efficiency of Fungus *Beauveria bassiana* in Controlling Red Flour Beetle *Tribolium castaneum*

Ali Heidari, Meisam Nazari, Alireza Shabanejad

Loss Assessment in Gum Productivity of *Acacia Senegal* Inflicted by the Tree Locust *Anacridium melanorhodon melanorhodon*

Wail Mohammed Haroon, Abdalla Mohamed Abdalla, Jean Michel Vassal

Influence of Farming Systems on Aflatoxin Contamination of Groundnut Crops under Field Conditions in Zambia

Juliet Akello, Mweshi Mukanga, Henry Njapau, Joseph Atehnkeng, Joao Augusto, Peter Cotty, Ranajit Bandyopadhyay

Effectiveness of Maize-Soybean Integration in Managing *Striga hermonthica* (DEL.) Benth in the Guinea Savannah Zone of Ghana

Israel K. Dzomeku, Olivia A Akanbelum, Daniel Amout, Stella Obanyi, Tara Wood

African Nightshades and African Spinach Lures Plant Parasitic Nematodes to a Dead-End

Oliver Chitambo, Solveig Haukeland, Komi K. M. Fiaboe, Florian M.W. Grundler

Development of a Certification Program for Virus-tested Plant Material in Colombia: A Collaborative Initiative

Joseph Cutler, Christian Lüchau, Juliane Langer, Susanne von Barga, Orlando Losada Acosta, Fánor Casierra Posada, Adriana Castañeda Cárdenas, Mónica Betancourt Vaquez, Wilmer Cuellar, Eduardo Arvydas Stasiukynas, Emilio Arevalo-Penaranda, Carmen Büttner

New Incursions of Pests and Diseases Present Serious Threats to Plant Health and Sustainable Agricultural Production in Sub-saharan Africa

Stephan Winter



Foto: © Joseph Cutler

Bioefficacy of *Glomus versiforme* and *Trichoderma harzianum* in Inhibiting *Cercospora* Leafspot Disease and Growth Enhancement of Cowpea

Iyabo Olunike Omomowo, Ayomide Emmanuel Fadiji, Israel Olawale Omomowo

Prevalence of Aflatoxin Contaminated in Maize and Groundnut in Malawi

Joseph Atehnkeng, Joao Augusto, Juliet Akello, Mishech Soko, Connel Ching, Peter Cotty, Ranajit Bandyopadhyay

Development of Hybrid Rice Variety (PR40638) with Bacterial Leaf Blight Resistance

Joanne Caguait, Leonilo Gramaje, Jake Carrampatana, Frodie Waing, Marlon Garcillano

Does Fruit Fly IPM Technology Influence Gender Roles in Mango Production and Marketing? A Case of Machakos County, Kenya

Beatrice Muriithi, Hannah Gichungi

A Novel Potyvirus, Tentatively Named Nightshade Veinal Mottle Virus, Infecting Nightshades in Kenya

Daniel Mwangi Mureithi, Rainer Meyhoefer, Sami Golla, Komi K. M. Fiaboe, Sunday Ekesi, Edgar Maiss

Genetic Diversity and Phylogeny of Symbiotic and Endophytic Bacteria of Cowpea (*Vigna unguiculata*) in Seven Geographic Regions of Kenya

Jonah Ngeno, George Chemining'wa, Robert Jackson, Margaret Hutchinson

Plant Derived Oils as Ultraviolet Protectants for the Beet Armyworm Nucleopolyhedrovirus (SeNPV)

Said El Salamouny, Martin Shapiro, Merle Shepard

Awareness and Perception about the Occurrence, Causes and Consequences of Aflatoxin Contamination and the Willingness to Pay of Aflatoxin Control in Burundi and Eastern Democratic Republic of Congo

Alexander Nimo Wiredu, Patchimaporn Udomkun, Flemming Nielsen, Bernard Vanlauwe, Ranajit Bandyopadhyay

Hostpreference and Parasitic Capacity of Five Trichogramma Species (Hym.: Trichogrammatidae) Against some Stored Product Moth Pests

Esmat Hegazi, Cornel Adler, Wedad E. Khafagi, Essam Agamy

Adaptation by Smallholder Farmers to Climate Change Impacts on Cassava Whiteflies and Associated Viruses

Oluwatosin Z. Aregbesola, James P. Legg, Veronica N.E. Uzokwe, Kolawole A. Ade-loye, Ole Søggaard Lund, Lene Sigsgaard, Carmelo Rapisarda

Sociotechnical System Analysis of Weeding, Key Step for Designing Agroecological Systems at the Watershed Scale

Pauline Della Rossa, Charles Mottes, Marianne Le Bail, Philippe Cattan, Magalie Jannoyer

Performance of *Metarhizium anisopliae* (Metsch.) Sorok and *Beauveria bassiana* (Bals.) Vuill. Isolates against Cowpea Aphid (*Aphis craccivora* Koch) in Cowpea

Allan Ndua Mweke, Sunday Ekesi, Komi Fiaboe, Nguya Kalemba Maniania, Christian Ulrichs

Development of Molecular Methods for Simultaneous Detection of *Fusarium oxysporum* f. sp. *phaseoli*, *Fusarium solani* and *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* in Common Bean Seeds

Adriane Wendland, Maythsulene Inacio Souza Oliveira

Systemic Infection and Aggressiveness of *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* Analyzed by Scanning Electron Microscopy in Different Genotypes of *Phaseolus vulgaris*

Adriane Wendland, Stella Valdo, Leila Garcês

The Effect of Weed Management on Cassava (*Manihot Esculenta* Crantz) Yield During Early Growth Stages in Zambia

Joseph Nzunda, Nhamo Nhamo, David Chikoye

The Field Efficacy of *Metarhizium Acridum* and its Mixture with High Doses of Neem Oil Against the Tree Locust *Anacridium Melanorhodon* *Melanorhodon*

Wail Mohammed Haroon, Abdalla Mohamed Abdalla, Jean Michel Vassal

Do Asian and European *Pieris Rapae* Males Produce Identical Scents to Attract their Conspecifics?

Maliha Gul Aftab, Christian Ulrichs, Cornel Adler

Virulence Diversity of Soybean Rust Isolates from Africa

Murithi Harun, James Haudenshield, Fenton Douglas Beed, George Mahuku, Matthieu Joosten, Glen L. Hartman

Aflatoxin Distribution in Crop Products from Burundi and Eastern Democratic Republic of Congo

Patchimaporn Udomkun, Alexander Nimo-Wiredu, Charity Mutegei, Joseph Atehnkeng, Marcus Nagle, Flemming Nielsen, Joachim M'uller, Ranajit Bandyopadhyay, Bernard Vanlauwe

Impact of Cocoa Cropping Systems and Varieties on Cherelle Wilt, Yield and Foliage Density

Lisa Mader, Laura Armengot, Thomas Hilger, Monika Schneider, Joachim Milz, Georg Cadisch

Detection and Characterisation of a New Iarvirus in *Passiflora edulis*

Christian Lüchau, Joseph Cutler, Juliane Langer, Susanne von Bargaen, Carmen Büttner

Efficacy of Commercial and Non-commercial Fungal Isolates for Suppression of Root-knot Nematode on Pineapple

Emmanuel Olajide, Solveig Haukeland, Wim Bert

The Project Picta-kill – Novel Strategies for Biological Psyllid Pest Control

Linda Muskat, Pascal Humbert, Jürgen Gross, Louisa Görg, Cornelia Dippel, Elisa Beitzen-Heineke, Wilhelm Beitzen-Heineke, Michael Przyklenk

Improved *M. brunneum* Endophytism for Biological Protection of Potato Plants

Vivien Krell, Desirée Jakobs-Schoenwandt, Stefan Vidal, Anant Patel

The Project Attractap: Optimisation of an Attractand-kill Strategy for Wireworm Control in Potato

Katharina Hermann, Pascal Humbert, Stefan Vidal, Michael Przyklenk, Elisa Beitzen-Heineke, Wilhelm Beitzen-Heineke, Anant Patel

Spatiotemporal Evaluation of the Fir Bark Beetles Complex in Parque Nacional Cumbres de Monterrey

Homero Garate Escamilla, Gerardo Cuellar Rodriguez

Networking on Aflatoxin Reduction in the Food Value Chain - Aflanel

Dorothea Link, Najim Touhami, Rolf Geisen, Markus Schmidt-Heydt, Hans-Georg Walte, Charles Nkonge, Marygoretti Gachagua, Steve Muchiri, Christine Schwake-Anduschus

Suppressive Effect of Different Compost Material on *Pythium ultimum*

Ehsan Ebrahimi, Peter von Fragstein

Ecofunctional Management Strategies for *Diaphorina citri* on Organic Orange Orchards

Lea Forster, Carlos Castillejos Cruz, Salvador Garibay

Evaluating Pest and Disease Incidence in Different Cacao Production Systems in Bolivia

Laura Armengot, Claudia Vaderna, Joachim Milz, Monika Schneider

Efficacy of the Augmentative Release of *Bracon hebetor* Against the Pearl Millet Ear Headminer

Mame Fatoumata Goudiaby, Ibrahima Sarr, Mbakké Sembène

Molecular Diversity of *Photorhabdus* sp. and *Xenorhabdus* sp., Bacterial Symbionts of Entomopathogenic Nematodes from Benin

Anique Godjo, Leonard Afouda, Wilfrida Decraemer, Anne Willems

Assessing the Impact of Banana Bunchy Top Disease (BBTD) on Food Security Between Men and Women in Affected Communities in West and Central Africa

Lilian Nkengla, Holger Kirscht, Suresh Babu, Namita Paul, Lava Kumar, Rachid Hanna, Deborah Olaosebikan, Martine Zandjana-kout-Tachin

Adaptability and Suitability of Quality Protein Maize in the Food and Farming Systems in Zimbabwe

Cacious Stanford Nyakurwa, Edmore Gasura, Peter Setimela, Stanford Mabasa, Joyful Tatenda Rugare, Thomas Heyland, Vimbayi Dhliwayo

Improved Cassava Cuttings Selection and Phytosanitation as Tool for Cassava Mosaic Disease Management in a Humid Forest Zone

Apollin Fotso Kuate, Ngome Ajebesone Francis

Impact of Termites on Cocoa Yield under Different Cocoa Cultivation Systems in Cameroon

Djuideu Tchouamou Christian Landry, Ambele Chaba Felicitas, Herve Bisseleua

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Joint Workshop of DPG, Enactus and Löwe für Löwe e.V. at Tropentag 2017

The ReSoil project – Young scientists support local development in Uganda

Uganda is a landlocked country in Eastern Africa which is dominated by tropical climate throughout the whole year. In Uganda 19% of the native population lives below the poverty line of \$1.25 per day. Workplaces which are able to provide sufficient income are simply lacking. Most Ugandans work in subsistence agriculture. 80% of Uganda's residents are engaged in farming which represents, with over 50%, the main source of income of the country. Yet, in the long run, the absence of knowledge of an efficient as well as environment-friendly use of fertilizer leads to diminishing returns and environmental damage caused by increasing soil degradation.

On this background, Enactus Mannheim e.V. (see p. 10) started the project ReSoil in 2014 to encounter soil degradation in Uganda through social entrepreneurship. The idea is to develop a method to produce an environmental friendly and nutritious soil. In workshops, the knowledge of the method is transferred to Ugandan smallholder farmers in suburbs and villages. In cooperation with the »Hochschule für Forstwirtschaft Rottenburg« we combined the ancient method »Terra Preta« with current research to produce a nutritious soil tailored for the conditions in Uganda – »ReSoil«.

In the beginning, we were supported financially and technically by »Neudorff« and »ECOstyle«, the European market leaders for gardening solutions. Additional knowledge about Terra Preta was provided by the »BUND Niedersachsen«.

ReSoil can be produced through an efficient composting method. This method incorporates organic waste, dung, plant slurry and biochar, resulting in a highly nutritious soil. ReSoil has the capacity to store more water and serves the environment by absorbing CO₂ and methane. Moreover, the biochar in ReSoil neutralizes the acid in the soil caused by rain. Applying ReSoil improves soil quality and therefore leads to significantly higher fertility and profits. Hence, ReSoil can serve as an organic fertilizer and reduce the use of chemical fertilizers, thus



contributing to environmental conservation.

The key link between the farmers and our team in Germany is our local Ugandan partner, the »Gudie Leisure Farm«, which is located in the capital city Kampala. In close cooperation with our partner, we have started the local implementation in January 2017: we created a test field, started the production process and employed our first employee, who is now an expert on Terra Preta. On our second visit to Uganda in April 2017 three workshops took place where we empowered 86 farmers. They are now

able to produce their own »ReSoil«. Once the project has become fully sustainable, it will be handed over to our local partner.

To make the expertise of ReSoil available to as many farmers as possible we need to give more workshops. Our vision is to spread the knowledge about ReSoil to other parts of Uganda to help stabilize the local livelihood situation and support the protection of the environment. Until then, we are always looking for technical and financial support as well as partnerships to share the idea of ReSoil.



Building Capacities for sustainable Moringa Production in Sierra Leone

The German non-profit organization Löwe für Löwe e.V. was founded in 1998 with the initial aim to provide shelter for orphans in the war-stricken country of Sierra Leone. Since then, the mission of Löwe für Löwe and its partner organization in Sierra Leone has been expanded to further education and fight poverty in the country. Among other activities, Löwe für Löwe has constructed and runs a primary school and a health center in the Western Rural Area near the capital Freetown.

Sierra Leone is still among the least developed countries in the world. Per capita income is low and malnutrition is prevalent. Seventy percent of the population works in the agricultural sector, most of them as smallholder farmers. Improving their productivity has been recognized as a crucial factor for the further development of the country.

Löwe für Löwe is now considering an innovative way to integrate health and agriculture by promoting the health beneficial drumstick tree *Moringa oleifera*. The leaves of the plant are recommended by the Food and Agriculture Organization of the United Nations as a suitable source of protein, vitamins and minerals particularly for nursing mothers and small children. The seed oil is also rich in nutrients. The seed cake remaining after oil extraction can be used as flocculent for freshwater purification or as fertilizer. Löwe für Löwe proposes to establish a multipurpose training center for sustainable practices in *Moringa* cultivation, product processing and marketing in Robekea Village, 50 km away from Freetown. Six acres of arable land are available for mixed culture organic farming of the Drumstick tree and vegetable plants. Water for irrigating plantations will be provided by two wells, one of them already in operation. The training center will include a building with dormitories for participants, rooms for teaching and for processing plant products. The training for small-scale farmers will include monitoring and preserving soil fertility, production



and usage of organic fertilizers, and pest control. They will also learn how to process the raw products (leaves and seeds) locally. Finally, development of a business plan for promoting and selling the products will be included in the training. Special emphasis is put here on promoting the health-beneficial effects of *Moringa* products, i.e. the nutritional value and the possibility of freshwater purification. Empowerment of smallholder farmers while improving public health at the same time summarizes the overall goal of this project.

Löwe für Löwe will receive academic support from local and international partners, the Agricultural Institute of Njala University, Freetown, Sierra Leone and DPG member Prof. Patel, University for Applied Sciences, Bielefeld for scientific monitoring of cultivation efforts including plant protection as well as the health impact of a *Moringa* diet. Members of Löwe für Löwe have also met the Sierra Leonean Minister of Agriculture, Prof. Jones, who promised governmental assistance for this project.

Jürgen Tomasch, Madeleine Martin, Brigitte Amara-Dokubo



Foto: © Löwe für Löwe

Self motivation, local partners, and appropriate networking with science and consultancy: crucial requirements for sustainable entrepreneurial actions in the tropics
DPG provides a forum for interdisciplinary scientific exchange and networking.

DPG gets ready to become a partner in networks for young scientist in a globalised world



En-act-us

En-act-us is a community of student, academic and business leaders committed to using the power of entrepreneurial action to transform lives and shape a better and more sustainable world:

entrepreneurial – initiating business innovation with integrity and passion.

action – the experience of social impact that sparks social enterprise.

us – student, academic and business leaders collaborating to create a better world.

A Head for Business. A Heart for the World.

Human progress depends on our ability to tap into the entrepreneurial spirit that lives within each of us and channel the unique talents, passions, and ideas we each possess toward creating good in the world.

We believe that investing in students who take entrepreneurial action for others will create a better world for all of us.



Foto: © Enactus

www.enactus.org



IAAS

The International Association of students in Agricultural and related Sciences (IAAS) is an international nonprofit and non-governmental student society headquartered in Leuven, Belgium. It was founded in 1957 in Tunis by 8 countries. At the moment it is one of the world's biggest student organizations and one of the leading agricultural student associations. IAAS gathers students studying, majoring or researching in agriculture and related areas like environmental sciences, forestry, food science, landscape architecture etc. Its committees are spread in universities in over 50 countries worldwide.

Students that take an active role as leaders in their society, enter professional life with innovative ideas and contribute to a sustainable development in their field of activity.

IAAS's Vision: »To promote the exchange of experience, knowledge and ideas, and to improve the mutual understanding between students in the field of agriculture and related sciences all over the world.« (Tunis 1957). The principal aim of IAAS is to promote the exchange of knowledge, information and ideas among students, and to improve the mutual understanding between countries and cultures. To do this it organizes activities like seminars, meetings, exchange weeks, an international exchange program, small-scale development projects.

www.iaasworld.org



Ypard

YPARD is an international movement by Young Professionals FOR Young Professionals in Agricultural Research for Development. YPARD operates as a network; it is not a formalized institution.

At the heart of YPARD as a movement are its members, who are encouraged to become active in their area, spread the news about YPARD to other young professionals, encourage a stronger voice of the youth in their own organizations, and share their views and ideas with other young professionals in the network.

This global on-line and off-line communication and discussion platform is meant to enable YPs all over the world to express their ideas and realize their full potential towards a dynamic ARD. YPARD's vision is to sustainably improve livelihoods world-wide where young professionals are proactively contributing to innovative agricultural development.



www.ypard.net

Joint Meeting 6th ICRBM & 16th Rodens et Spatium 3-7 September 2018 – Potsdam, Germany

The *joint meeting* is an international forum for all involved in basic and applied rodent research. It provides a platform for exchange in various aspects including rodent behaviour, taxonomy, phylogeography, disease, management, genetics and population dynamics.

Former meetings have been held in Olo-mouc, Lisbon, Rovaniemi (Rodens et Spatium) and Zhengzhou, Bloemfontein, Hanoi (ICRBM).



Foto: © Jacob

www.rodents2018.org

The meeting will be hosted by

- University of Potsdam
- Julius Kühn-Institut (JKI)
Federal Research Centre for Cultivated Plants
- German Society for Plant Protection and Plant Health r.S. (DPG)



Vorratsschutzcongress

12th International Working Conference on Stored Product Protection (IWCSPP) 7-11 October 2018 – Berlin, Germany

In a number of places around the world times are uneasy due to climate change, political unrest or poverty. All the more it is important to keep up with the challenges to food safety by better protecting what we harvest. Less post-harvest losses and less waste can benefit our climate by reducing greenhouse emissions, can help to save water for irrigation and save arable land. Let us get together and strengthen our knowledge in the diverse technologies used for stored product protection in different parts of the world. Wisdom is scattered and it is worthwhile to put this puzzle together.



Foto: © Adler, JKI

iwcspp2018.julius-kuehn.de

Scientific Organizing Committee
IWCSPP

- Julius Kühn-Institut (JKI)
Federal Research Centre for Cultivated Plants
- Federal Ministry of Food and Agriculture (BMEL)
- German Society for Plant Protection and Plant Health r.S. (DPG)



Bundesministerium
für Ernährung
und Landwirtschaft



61. Deutsche Pflanzenschutztagung 11. bis 14. September 2018 Universität Hohenheim

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- Julius Kühn-Institut (JKI)
Bundesforschungsinstitut für Kulturpflanzen
- Pflanzenschutzdienst
Baden-Württemberg
- Deutsche Phytomedizinische
Gesellschaft (DPG)

www.pflanzenschutztagung.de

Arbeitskreistagungen der DPG

Die Arbeitskreise der DPG sind wissenschaftliche Foren für DPG-Mitglieder und Nicht-Mitglieder, auf denen aktuelle Forschungsergebnisse oder Erfahrungsbereiche aus der Praxis ausgetauscht und diskutiert werden. Die Teilnahme an den Arbeitskreisen der DPG ist kostenlos.

An den jährlichen Arbeitskreistagungen nehmen zwischen 15 und 120 Personen teil. Insgesamt treffen sich so jährlich mehr als 1400 Wissenschaftler aus dem gesamten Fachbereich der Phytomedizin. Organisiert werden die Tagungen von den Arbeitskreisleiterinnen und Arbeitskreisleitern.

Wir würden uns freuen, wenn wir bei den Teilnehmern der Arbeitskreise Interesse an der DPG und einer Mitgliedschaft wecken könnten. Wir ermutigen Doktoranden, sich dem wissenschaftlichen Forum zu stellen und ihre Ergebnisse, auch wenn sie vorläufig sind, mit den Kollegen in den Arbeitskreisen zu diskutieren. Alle Teilnehmer sind eingeladen, ihre wissenschaftlichen Beiträge dem Arbeitskreisleiter als Abstracts zur Verfügung zu stellen.

Nur so können wir nach außen die Aktivitäten der Arbeitskreise darstellen und für die Teilnahme werben.



	Kartoffel	7.3.2018
	Raps	20.2.2018
	Schädlinge in Getreide und Mais	21.2.2018
	Krankheiten an Getreide und Mais	29.1.2018
	Heil-, Duft- und Gewürzpflanzen	19.2.2019
	Phytomedizin im urbanen Grün	24.4.2018
	Waldschutz	2018
	Vorratsschutz	2019
	Phytomedizin in den Tropen und Subtropen	18.9.2018
	Pflanzenschutztechnik	7.3.2018
	Biometrie und Versuchsmethodik	20.6.2018
	Viruskrankheiten der Pflanzen	19.3.2018
	Phytobakteriologie	6.9.2018
	Mykologie	15.3.2018
	Wirt-Parasit-Beziehungen	15.3.2018
	Populationsdynamik u. Epidemiologie der Schaderreger	März 2018
	Herbologie	27.2.2018
	Nematologie	13.3.2018
	Wirbeltiere	2019
	Biologischer Pflanzenschutz	15.3.2018
	Nutzarthropoden und Entomopathogene Nematoden	2018
	Arbeitskreisleitertreffen	2019