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**Agriculture: Africa's "engine for growth"
- Plant science & biotechnology hold the key**

at Rothamsted Research, Harpenden, UK

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Agriculture: Africa’s “engine for growth” - Plant science & biotechnology hold the key

Editorial

Hunger and the cycle of poverty in Africa are two of the most significant developmental challenges that the world currently faces. Agriculture is considered to be an effective driver of growth in the world’s poorest countries. It is widely accepted that raising agricultural productivity is essential for reducing rural poverty, enhancing food security, and stimulating broad-based economic growth but the productivity of African agriculture remains low. At present, the lack of scientific innovation in African agriculture hampers economic and social development. The chapters in this volume arise from the oral and poster presentations given at the Association of Applied Biologists (AAB) symposium titled “Agriculture: Africa’s engine for growth-Plant Science and Biotechnology hold the key” which was held at Rothamsted Research from the 12-14th of October, 2009. This three-day international symposium brought together scientists from Africa and the rest of the world in order to examine how new advances in plant science research and developing technologies are being used to the benefit of African agriculture.

Intensification of global synergies and alliances are further required in order to apply multi-disciplinary approaches and make prudent and timely recommendations regarding areas of highest priority for translation of modern plant sciences to the field, as well as devising appropriate actions on key activities in crop improvement. Improvements in farming practices and crop management are essential but biotechnology, genetics and emerging technologies also have key roles to play. The need to enhance education in the new areas of plant research and biotechnology was finally also addressed as was the key question of whether plant science and biotechnology hold the key providing suitable solutions for Africa. The consensus view is clear: plant science and biotechnology may not completely “hold the key”, but these areas are an important part of the solution, as are feasible strategies for generic translational pipelines for introducing genes and traits required for improvement of agricultural crops.

We hope that this volume will provide interesting and thought-provoking insights in new areas of plant science research and its implementation and that this will prompt further experimentation and breakthroughs in this important field. The papers bring together the expertise and enthusiasm of the participants in this international symposium and provide a state-of-the art overview of key topics in the field. They provide up-to date insights into the prudent application of recent and prospective biological advances in plant science and biotechnology and show how they can contribute to the “sustainable intensification”, of agriculture.

**Christine H. Foyer (Africa College, Centre for Plant Sciences, University of Leeds, UK) and
Karl Kunert (FABI, University of Pretoria, South Africa)**

	<i>Page</i>
Training for implementing risk assessment regulations for the release of GM crops ROGER HULL, MAGNUS BOSSE & GEORGE TZOTZOS	1
Solving Africa's weed problem: Increasing crop production & improving the lives of women L P GIANESSI	9
Influence of farmers' practice on sustainable food production in northern KwaZulu-Natal, South Africa FRANCIS B LEWU & YOSEPH ASSEFA	25
Unraveling regulatory gene networks involving hydrogen peroxide in plants SANDY VANDERAUWERA, FRANK A HOEBERICHTS & FRANK VAN BREUSEGEM	33
Domestication of <i>Tylosema esculentum</i> (marama bean) as a crop for Southern Africa: Genetic diversity of the Omitara marama subpopulation of Namibia PERCY M CHIMWAMUROMBE	37
Transformation of banana (<i>Musa</i> spp.) with a D-type cyclin gene from <i>Arabidopsis thaliana</i> (ArathCYCD2;1) D TALENGERA, G T S BEEMSTER, F FABIO, D INZE, K KUNERT & W K TUSHEMEREIRWE	45
Germination studies on <i>Corchorus olitorius</i> L. (Tiliaceae) (Jew's Mallow); a wild leafy vegetable for possible domestication in the Eastern Cape, South Africa MPUMELELO NKOMO & LEARNMORE KAMBIZI	55
Controlling plant height in Tef (<i>Eragrostis tef</i>) for lodging resistance ENDALE GEBRE, URTE SCHLÜTER & KARL KUNERT	61
Is Golden Rice a GMO which will rescue the eyesight and lives of many children? INGO POTRYKUS	69
Control of stem borers and striga in African cereals: a low input push-pull approach with rapidly expanding impact Z R KHAN, J A PICKETT, M L HAMILTON, A HASSANALI, A M HOOPER, S P KUATE, C A O MIDEGA, J PITCHAR & B TORTO	71
Unravelling the molecular basis of resistance in rice to the witchweed <i>Striga</i> JULIE D SCHOLES	77
Digestive proteolysis in the banana weevil (<i>Cosmopolites sordidus</i>) gut and the effects of recombinant phytocystatins on early larval growth and development A KIGGUNDU, K KUNERT, D MICHAUD, A VILJOEN, W TUSHEMEREIRWE & E KARAMURA	79
Novel methods to combat insect pests in Sudan HAYDER ABDELGADER	91
Controlling <i>Cicadulina</i> leafhopper vectors of maize streak virus by induced plant defence S OLUWAFEMI, M A BIRKETT, T J A BRUCE & J A PICKETT	97

	<i>Page</i>
Implementation of EGY-BLIGHTCAST the first computer simulation model for potato late blight in Egypt M A AFIFI & SAHAR A M ZAYAN	103
Cowpea landraces of Botswana:a potential resistance source for <i>Alectra vogelii</i> GELETA LEGESSE FITE	111
Designing nematode resistant crops for Africa: progress and constraints H J ATKINSON, G ARINAITWE, A KIGGUNDU & L TRIPATHI	119
Perspectives on molecular breeding of Africa’s main staple food crops - cassava and yam MELAKU GEDIL & ALIEU SARTIE	123
Diverse approaches to delivering improved seeds to African farmers and the crucial importance of partnerships COLIN MERRITT	137
Making better seeds for African food security – a new approach to scientist-farmer partnerships S K OFFEI, C ALMEKINDERS, T A CRANE, S G HUGHES, A MOKUWA, E NUIJTEN, F OKRY, P C STRUIK, B TEEKEN & P RICHARDS	141
Plant biotechnology and agricultural production: the experience of Mozambique C M MARTINS, S I VENTURA & O A QUILAMBO	149
Engineering stress tolerance in crops MICHAEL METZLAFF	155
Constitutive expression of endogenous defense proteins in transgenic potato lines expressing the Cys protease inhibitor corn cystatin II A MUNGER, C GOULET, L-P VAILLANCOURT, U SCHLÜTER, A KIGGUNDU, K KUNERT, M-C GOULET, K COENEN & D MICHAUD	157
Can biotechnology drive an African green revolution? D H MIGNOUNA, S O OIKEH & D F MATARUKA	165
Improving drought and salinity tolerance of wheat varieties indigenous to North Africa F BRINI, K FEKI, A KHEMEKHEM, H KHOUDI, M HANIN & K MASMOUDI	171
GMO-projects for public good are faced with prohibitive conditions INGO POTRYKUS	183
How can plant science improve agricultural production in Africa? DAVID W LAWLOR	185
Involving American undergraduates in research and education collaborations with Africa CHRISTOPHER A CULLIS	195
The ethics of using GM crops in developing countries ALBERT WEALE & VARSHA JAGADESHAM	201

	<i>Page</i>
Opportunities for Oil Palm development in Benin and Ghana: institutional conditions for technological change PIERRE V VISSOH, SAMUEL ADJEI NSIAH, ARNOLD VAN HUIS & NIELS RÖLING	207
Genetically Modified maize: adoption practices of small-scale farmers in South Africa and implications for resource poor farmers on the continent YOSEPH ASSEFA & J VAN DEN BERG	215
Smallholder farmers' attitude towards biotechnologically developed <i>Musa</i> hybrids in Ghana B M DZOMEKU, F ARMO-ANNOR & K ADJEI -GYAN	225
Applications of high-throughput techniques to the understudied crops of Africa ZERIHUN TADELE, KORINNA ESFELD & SONIA PLAZA	233
Gum arabic glycoprotein and the infection of legumes by <i>Rhizobium</i>: evidence for tyrosine cross-linking by peroxidase and by inorganic catalysis E A RATHBUN & N J BREWIN	241
 <i>Posters</i>	
Strategies for enhancing biotechnology innovations for crop improvement in Kenya DAMARIS ACHIENG ODENY	247
Antifungal effect of neem and some medicinal plant extracts against <i>Alternaria solani</i>, the causes of tomato early blight M A AFIFI and A M ZAYAN SAHAR	251
Effects of green manure legumes on striga infestation in maize J B O OGOLA, J J O ODHIAMBO & T MADZIVHANDILA	259
An overview of the potentials of natural rubber (<i>Hevea brasiliensis</i>) engineering for the production of valuable proteins E E OMO-IKERODAH, K O OMOKHAFFE, F A AKPOBOME & M U MOKWUNYE	263
Assessing transferability of Sweetpotato EST SSR primers to cocoyam and micropropagation of nine elite cocoyam varieties in Ghana M D QUAIN, R THOMPSON, E L OMENYO, J Y ASIBUO, D APPIAH-KUBI & P ADOFO-BOATENG	269
Genetic diversity of elite <i>Musa</i> cultivars and introduced hybrids in Ghana using SSR markers M D QUAIN, B M DZOMEKU, R THOMPSON, J Y ASIBUO, P A-BOATENG & D APPIAH-KUBI	277
Inducing resistance in sweet pepper against powdery mildew using some chemical inducers and microelements under greenhouse and field conditions S A M ZAYAN & T G A RAHMAN	283
Establishment of alternative selection systems for transgenic sugarcane callus C VAN DER VYVER, C STANDER, J KOSSMANN & H GROENEWALD	291

	<i>Page</i>
Phylogenetic relationship of lectin-like proteins expressed in tepary and common bean PAUL M KUSOLWA & JAMES R MYERS	297
Insect Pest Management towards increased and sustainable crop production in Africa: a case of African rice gall midge (AfRGM), <i>Orseolia oryzivora</i> Harris and Gagné (Diptera: Cecidomyiidae) E O OGAH, J A ODEBIYI, F E NWILENE & A A OMOLOYE	303
Molecular characterisation of <i>Alternaria</i> species of Sweet Potato and development of a host resistance screening protocol P O ADEBOLA, C R LANE & J J SMITH	309
Evaluation of some tomato germplasm for resistance to <i>Tomato yellow leafcurl virus</i> (TYLCV) disease in Ghana M K OSEI, R AKROMAH, S L SHIH & S K GREEN	315
<i>Xanthomonas campestris</i> pv. <i>musacearum</i> induces sequential expression of two NPR-1 like genes in banana R ENDAH, T COUTINHO & R CHIKWAMBA	325
Mushrooms and their development in Africa L N OFODILE & I O YUSUF	331
Mosquito repellency and larvicidal activities of essential oils from the seeds of annatto (<i>Bixa orellana</i> L.) J I O JONDIKO, D AKINYI & M F NDONG'A	337
Effects of pod-zone Ca supply on dry matter distribution at maturity in two groundnut (<i>Arachis hypogaea</i> L.) cultivars grown in solution culture G E ZHARARE, PAX F C BLAMEY & C J ASHER	343
The development of a decision support system for rainwater harvesting in Tanzania ROBIN BURGESS	355
Genotype variant of soybean cultivars around Lake Victoria region, East Africa ZEDEKIAH A OKWANY, FREDRICK M NJOKA & ELIJAH K GITHUI	361
Evaluation of live stakes for yam production in the forest-savanna transition zone of Ghana S A PEPRAH & S AGYENIM BOATENG	369
Genetic diversity of groundnut botanical varieties using simple sequence repeats J Y ASIBUO, G HE, R AKROMAH, O SAFO-KANTAKA, H K ADU-DAPAAH & M D QUAIN	375
Sorghum Proteomics: Towards the understanding of the molecular basis for drought and salinity tolerance in cereals B K NDIMBA, L A THOMAS & R NGARA	381

	<i>Page</i>
Establishment of rural level mass production of bio-agents for timely availability of quality bio-agents for successful adoption of organic agriculture - an action research M SHIVAMURTHY, K C SHASHIDHAR, D RADHAKRISHNA, K M INDIRESH & G F AYASHA	387
Pathogenicity study of <i>Meloidogyne incognita</i> and <i>Scutellonema bradys</i> on white yam cultivars in south-west Nigeria TIMOTHY I OLABIYI, BOLANLE B OGUNBOWALE & ABAYOMI TEMIDAYO	393
White yam production in the southwest Nigeria: Disease problems T I OLABIYI, J O OLANIYI, W B AKANBI, G O OYEDIRAN, J I OLAIFA, T A ADEBAYO, O A OLANIRAN, K A ADELASOYE, O A OJO, C O AREMU & P A BABAJIDE	397
New insights towards the understanding of plant cystatin–papain interaction B J VORSTER, Ö TASTAN BISHOP, U SCHLÜTER, N COETZER & D MICHAUD	403
Evaluation of antimicrobial potential of <i>Cuminum cyminum</i> L. against some pathogenic bacteria I Z AHMAD, A KAMAL & S FATIMA	409
Alteration of sugar and protein contents in <i>Nigella sativa</i> L. seeds during different phases of germination I Z AHMAD, A KAMAL & J M ARIF	415
Overview of breeding for grain resistance to storage pests J K MWOLOLO, S W MUNYIRI & P W MUTURI	421



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Delegates by the pond at Rothamsted Research.
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Above: Delegates enjoying the conference dinner.

Below: Delegates outside Rothamsted Manor, while on a tour of the experimental fields at Rothamsted. Reproduced by kind permission of Prof. M Shivamurthy.

