



# OFAB Newsletter

Open Forum on Agricultural Biotechnology in Africa



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Agency

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## 2016 Highlight Edition

January 2017 edition of OFAB Newsletter is designed to review some of the activities of the preceding year and set the roadmap for the current year 2017.

### Nigeria cannot be guided by sentiments and fear on Biotech - Minister of Agric



■ Chief Audu Ogbeh,  
Honourable  
Minister, Federal  
Ministry of  
Agriculture and  
Rural Development

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**T**he Honourable Minister of Agriculture & Rural Development, Chief Audu Ogbeh has said that Nigeria cannot be guided by sentiments and fears about biotechnology but will be guided by scientific facts.

He made the statement at the Experts Meeting on GMOs, organized by the Federal Ministry of Environment in collaboration with the Federal Ministry of Science & Technology and the Federal Ministry of Agriculture & Rural Development, 15th August 2016 at Sheraton Hotel and Towers, Abuja, where he stated that people cannot be guided by sentiments and fears rather;

they should make decisions based on scientific facts".

He explained that GMOs have been a very controversial subject by which majority of the crowd are guided by sentiments, fears and misinformation.

"We are here to move forward to ask the larger public to contribute to the GMO discussions so as to neutralize the fears and sentiments around it", he added.

"Nigeria has to move forward with science and in between the fears, misconceptions and reality lies a truth which will be discovered at this meeting", he disclosed.

# Science should rule the decisions of Policy Makers - *Amina Ibrahim*



■ Amina Mohammed, Honourable Minister of Environment

**T**he Honourable Minister of Environment, Amina Mohammed disclosed that science has to rule the decision policy makers make as a nation, with regards to Nigeria's position on biotechnology.

In her remarks at the Experts Meeting on GMOs, she explained that NBMA is charged with the regulation of

Genetic Modification research in Nigeria and so the Meeting was meant to help the general public understand more what modern biotechnology application and its regulation are to allay their concerns.

"There is a lot to learn, the capacity of institutions has to be strengthened to enable efficient deployment of relevant technologies. We have well-

articulated policies and framework in the African Union which guides us to shape ours", she added.

"The challenge is the communication gap and how to break down the work of scientists to the lay people who have no background in science." She highlighted.

She said "Communications today comes in various forms so processing the right information seems difficult in this era of internet where we are faced with false and true information".

"From the work being done at the National Root Crops Research Institute(NRCRI), Institute of Agricultural Research(IAR), Zaria and other research Institutes, Nigeria is moving forward in its quest to achieve food security. This debate is a healthy one and we should look for gaps in the communications and fill it up to enable us move forward", she reiterated

Amina concluded that the Meeting was aimed at bringing the key stakeholders involved in biotechnology research and its opponents together to deliberate on the available facts on the science behind the technology, addressing concerns and fears around it.

## Genetic modification is not new - *DG NABDA*

**T**he DG/CEO National Biotechnology Development Agency (NABDA), Professor Lucy Ogbadu has said that genetic modification of crops is not new as farmers have been modifying genes knowingly or unknowingly through crossing between crops to get improved varieties, she made the statement at the Experts Meeting on GMOs in Abuja

"Gene Modification processes have been taking place and evolving in crops right from the traditional days of breeding in agriculture to the era of modern agriculture", she added.

The DG emphasized that the difference between modern biotechnology and other forms of modification is that the modern tool involves movement of genes between different lineages with precision, concision and specificity while movement of genes in traditional breeding is within the lineages.

"On the Status of GMOs in Nigeria, Prof. Ogbadu indicated that GM Crops are still undergoing confinement field trials at the Nigerian Agricultural Research Institutes.



■ Prof. Lucy Ogbadu, Director-General/CEO, NABDA

## NBMA is well positioned to regulate biotechnology

**T**he Director General/CEO, National Biosafety Management Agency (NBMA), Mr. Rufus Ebegba has said that National Biosafety Management Agency (NBMA) is well positioned to regulate the activities of biotechnology in Nigeria.

Speaking at the Experts Meeting on GMOs held 15th August 2016 at Sheraton Hotel and Towers, Abuja, he said Biosafety issues have evolved over the years in Nigeria and other African Countries and Nigeria played a major role in the of African sub-Region.

He commended the Federal Ministry of Environment for taking the lead in organizing the Experts Meeting. The DG further affirmed that science and technology is one of the major contributors of growth for any economy and so for the meeting to be holding meant Nigeria wants to move forward. "The meeting is what will determine how forward science will move in the country", he added.

He urged all participants to pay attention to the proceedings of the Meeting and not let what shall be discussed to be guarded by fear or sentiment and wished the Meeting fruitful deliberations.



■ Dr. Rufus Ebegba, Director-General/CEO National Biosafety Management Agency

## GM Technology will drastically reduce use of Pest and Disease control agents in Nigeria - *Expert*

**T**he Principal Investigator, Bt. Cowpea Project and Director, Biotechnology Research, Institute for Agricultural Research(IAR), Zaria, Prof. Mohammed Ishiyaku, disclosed that GM Technology will drastically reduce usage of toxic chemicals in pest and disease control as well as inorganic fertilizer in Nigeria.

In his presentation at the Experts Meeting on GMOs recently held in Abuja, he maintained that GM Technology will enhance the genetic potential and increase yield which will definitely negatively affect the market of chemicals", he highlighted. "Nigerian Farmers believe in the safety and socioeconomic benefits of

GM Technology and so are placing demand for its safe deployment in Agriculture and the Federal government of Nigeria also believes in the socioeconomic benefits of this technology which was why a biotechnology policy was developed in 2001 to harness these benefits for National development through setting up of the National Biotechnology Development Agency and the enactment of the Biosafety Act 2015, Establishing NBMA to ensure safe deployment of the technology in Nigeria.", he explained.

Prof Ishiyaku further disclosed that Public research institutes like IAR, National Root Crops Research



■ Prof. Mohammed Ishiyaku, Bt. Cowpea coordinator, IAR Zaria at the event

Institute(NRCRI), National Cereals Research Institute(NCRI) developing thorough research solutions to national agricultural problems are under the regulatory control of NBMA.

## There is a weak link between Scientists and the Media - *Makinde*

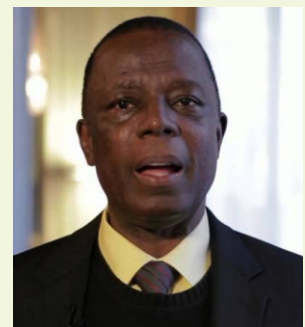
**P**rofessor Diran Makinde of NEPAD Head Office in South Africa during his Paper Presentation at the GMOs Experts Meeting in Abuja acknowledged that there is a weak link between Scientists and the Media which leads to lack of evidence based reporting.

Speaking further, Prof Makinde observed that there is need for training scientists and communicators as well as the development of a good communication strategy. He highlighted the communication gaps that exist in the

development of GM crops which does not address Myths and misperceptions.

Proffering solutions to these challenges, he said it is best for biotech and biosafety issues to be included in the academic curricular of students to facilitate an early understanding of the subject matter.

Concluding his presentation, Prof. Makinde said the Biosafety Agency needs to strive to maintain credibility, trust, accessibility and relevance through the presentation of evidence; and facts, based on science to the public on biotech and biosafety issues.



■ Prof. Diran Makinde, NEPAD Head Office, South Africa

# AU, NEPAD, ABNE believes that biotech can contribute to food security - Dr. Jeremy



**ABNE | African Biosafety Network of Expertise**

**T**he Director AU-NEPAD-ABNE, Dr. Jeremy T. Ouedraogo informed Participants at the GMOs Experts Meeting that the technical arm of the African Union agrees that biotechnology is a tool that can contribute to food security in Africa and that's the reason for ABNE striving to build the capacity of institutions by making sure the practice of modern biotechnology is adequately regulated and ensured to be safe.

“The African Biosafety Network of Expertise(ABNE) drives on the strength of Africans therefore assists them in the handling and reviewing of Biosafety Applications while serving as a Network among regulators within and between countries, and between regulators and scientists”, he added.



**■ Biotechnology will be beneficial to both the small and large scale farmers in Africa**



■ Group Photograph after the 2 day training of Legal Professionals in Abuja



■ Group Photograph at the Expert meeting on biotechnology and biosafety, Abuja Nigeria



■ Stakeholders during the Courtesy Visit to the Honourable Minister of Science and Technology, Dr. Ogbonnaya Onu



■ Stakeholders during the Courtesy Visit to the Honourable Minister of Science and Technology, Dr. Ogbonnaya Onu



■ OFAB Nigeria Coordinator, Dr. Rose Gidado receives and award of honour on Behalf of DG NABDA, Prof. Lucy Ogbadu at the Biotechnology Society of Nigeria



■ Group Photograph during the visit to Vanguard and Guardian Newspapers, Lagos by the OFAB Nigeria team



■ Group Photograph of the Management Staff of the Federal Ministry of Communication technology during a sensitization seminar on GMOS



■ OFAB Nigeria drama group showcasing biotechnology benefits at the Sensitization event for the Federal Ministry of Health on GMOs



■ OFAB Nigeria crowns Master and Miss OFAB during the children's day celebration, 2016



■ Dr. Rose Gidado, OFAB Nigeria Coordinator speaking during a panel discussion at the Nigeria Academy of Science (NAS) GMO Workshop, Lagos



■ Group Photograph at the Sensitization event for the Federal Ministry of Health on GMOs



■ Architect Kabiru Ibrahim, President, AFAN, Speaking at the sensitization seminar for the Federal Ministry of Health, Abuja



■ Director FDA, Federal Ministry of Health, Dr. Fubara CHukwu speaking at the sensitization event for the Federal Ministry of Health



■ Dr. Yerima Bello and Prof. Enobong Enobong at the Nigeria Academy of Science Workshop on GMOs



■ Biotechnology Society of Nigeria President, Prof. Benjamin Ubi speaking at the Nigeria Academy of Science Workshop on GMOs

# Biotechnology Society of Nigeria 29th Annual Conference and General Meeting Report

**T**he Hon. Minister of Agriculture, Chief Audu Ogbeh disclosed that Nigeria is still in dire need of biotechnology for livestock as much as it is being used in crops.

The Minister made the statement during his opening remarks at the Opening Ceremony of the 29th Annual Conference and General Meeting of the Biotechnology Society of Nigeria in Calabar from 28th August 2016 with the theme: Biotechnology, a Tool for enhancing Productivity, Economic Diversification and Job creation.

The Hon. Minister, who was represented by Dr (Mrs.) Asibong Usang Bassey who is the State Director, Federal Ministry of Agric at the Conference, expressed delight to be a part of the Conference to deliberate on ways to move the country forward in the area of Biotechnology.

"Biotechnology is a major pivot that cuts across so many areas that should provide useful tools that will contribute in the improvement of seeds, various breeds of livestock and aquatic species", he asserted.



■ Chief Audu Ogbeh, Honourable Minister, Federal Ministry of Agriculture and Rural Development

## Biotechnology the bedrock of civilization- VC UNICAL

**T**he Vice Chancellor, University of Calabar, Prof Zana Akpagu has described biotechnology as the bedrock of civilization, adding that developed countries depend on biotechnology for quality standard of living.

He made the statement during his opening remarks at the Biotechnology Society of Nigeria Conference, held in Calabar from the 28th to 31st August 2016 with the theme: Biotechnology, a tool for

enhancing productivity, economic diversification and job creation.

Prof Akpagu who was represented by the Deputy Vice Chancellor, Academics, Prof. Florence Obi reiterated that the role of biotechnology cannot be over-emphasized and urged the experts to come out with positive deliberations that will help in improving the economy. She welcomed everyone to the beautiful city of Calabar and wished them a successful gathering.



■ Prof Florence Obi, Deputy Vice-Chancellor, Academics, University of Calabar

## Anti GMO activism is out of ignorance

**T**he Chairman of the Occasion Prof Eneobong Eneobong lamented that the anti GMO activism is totally out of ignorance since GMOs undergoes rigorous testing before they are released.

In his opening remarks at the 29th Annual Conference and General Meeting of Biotechnology Society of Nigeria, he expressed delight in the way Biotech Society of Nigeria expanded overtime.

"South Africa was the 1st country to adopt GM crops while other countries like Sudan, Egypt, Burkina Faso followed suit. It took Nigeria almost 20 years to develop the laws

guiding the use of GMOs which the African academies of science and other academies of science all over the world have endorsed", he emphasized.

The Chairman assured the public that GMOs are safe and challenged the scientists to come up with strong positions on how to protect the country from ignorance, superstition and fear of the unknown. He admonished all professionals in the field to take advantage of the conference and deliberation as a medium to brainstorm on ways to bring Nigerians out of ignorance on the application of biotechnology and GMOS.



■ Prof Eneobong Eneobong

## Biotech the biggest Academy in Africa working towards improving livelihood

**T**he President, Biotechnology Society of Nigeria (BSN), Dr. Yerima Bello, said biotechnology is one of the biggest academic Professions in Africa that is working towards the enhancement of productivity and improved livelihood especially as it can be applied in agriculture to increase yield and income for farmers.

In his remarks at the Biotechnology Society of Nigeria Annual Conference, he called on participants and told them not to relent in promoting biotechnology applications in Nigeria and urged everyone to participate effectively at the Conference.



■ Dr. Yerima Bello, President Biotechnology Society of Nigeria

## DG NABDA urges scientist to reject the campaign against GMO



■ (L) Prof. Lucy Ogbadu, Director-General/CEO, National Biotechnology Development Agency (NABDA) was represented at the BSN by (R) Dr. Rose Gidado, Country Coordinator, OFAB, Nigeria Chapter.

**T**he Director General National Biotechnology Development Agency, (NABDA), Professor Lucy Ogbadu assured BSN of the Agency's continual support in bringing the gains of this cutting-edge technology to the populace especially the grassroots.

The Director-General NABDA who was represented by the Assistant Director, NABDA and OFAB Nigeria Coordinator, Dr. Rose Gidado, said Agricultural Biotechnology has been recognized all over the world as a potential solution to food security.

She urged all scientists and biotechnologists to reject the campaign against Genetically Modified Organisms, crops and foods and to do everything to accelerate the access to farmers the tools of modern biotechnology or genetic engineering for the enhancement of their farm produces and economic empowerment.

## Biotech application will be adequately regulated - NBMA

**I**n another development, the Director General/CEO National Biosafety Management Agency (NBMA) Mr. Rufus Ebegba said it was paramount for Nigerians to know that the application of Biotechnology in Nigeria will be adequately regulated.

While delivering his goodwill message at the BSN Conference and General Meeting, he congratulated the Society for a well-organized conference and advised Nigerians to source for information on GMOs from the right source. He assured that no GM product will enter into the Nigerian market without undergoing testing.

■ Dr. Rufus Ebegba, Director-General/CEO National Biosafety Management Agency





# NBMA is to ensure safety application of biotechnology in Nigeria

**T**he Director-General National Biosafety Management Agency (NBMA), Dr. Rufus Ebegba said the role of his Agency is to ensure that safety measures are applied in the handling and use of genetically modified organisms in Nigeria

He made the statement during his goodwill message at Biotechnology and Biosafety Training for Legal Professionals held at Gombe Jewel hotel, 3rd to 4th June 2016

He called on the Members of the Media to report GM activities in Nigeria based on evidence and not fear and misinformation.



■ Dr. Rufus Ebegba, Director-General/CEO NBMA

# Most people are unaware of the importance of Biotech - Legal Officer

**C**hief Legal Officer, National Biotechnology Development Agency (NABDA), Mrs. Poopola, disclosed that it is strange to know that most educated people regardless of gender and culture are unaware of the importance of biotechnology in our society.

In her welcome address, during the Biotechnology and Biosafety Training for Legal Professionals, she said modern biotechnology, despite its advantages, has limited public awareness on its basic applications, its safety and the laws safe-guarding them.

“What brought about the training is to

educate the legal professionals about the basic application of Biotechnology and its Laws since most lawyers do not have technical background”, she explained.

Highlighting some items on the agenda, Barr Poopola's said It is gratifying to note that the agenda of the Seminar covers a wide range of very interesting items relating to Biotechnology, Biosafety and its Law. She also reiterated that activities would be conducted mainly in sessions with technical and legal experts who will make their presentations, deliberate and discuss.



■ Mrs. Poopola

# Feedback from the Participants/Lessons learnt

**I**n a brief Interview conducted on some of the participants of the workshop, most of them said the workshop was insightful and very educative, adding that they have been effectively empowered to handle any biotechnology / biosafety case that might arise in future. They also said they are looking forward to playing any role they can to ensure that Nigeria commercializes GM crops for the interest of feeding the growing populace.

While others said that at least now they know what GMOs are and its Legal Implications, they cannot wait

to share with their colleagues the interesting lessons from the workshop. Many More Suggested that a similar session be organized for the Judges who are the final decision makers in the court after lawyers are done defending a case, to enable them make informed decision on the subject matter. They Urged NABDA and OFAB to create more awareness especially for farmers, so that when the anti-groups approach the farmers, the farmers will say they know about the technology and its safety.

Closing the workshop with vote of thanks, the OFAB Nigeria Chapter



■ Dr. Rose Gidado, Country Coordinator OFAB Nigeria Chapter

Coordinator, Dr. Rose Gidado appreciated everyone who participated in the workshop and wished everyone a successful departure.

# Nigeria still at research level on biotechnology

- DG NABDA

The Director General/CEO, National Biotechnology Development Agency (NABDA) Professor Lucy Ogbadu, disclosed that Nigeria is still on the research level and has 4 confined field trial sites in various research institutes.

In her remarks at the Biotechnology and Biosafety Training for Legal Professionals, she added that biotechnology is not a new technology and has been in practice since over 10,000 years ago.

She highlighted the different areas where biotechnology is applied to include health, environment, industries and in agriculture.

Speaking on the benefits of

biotechnology in agriculture, the DG said scientists have modified crops to develop resistance to some farm challenges which conventional breeding could not handle.

GM crops are crops developed to resist/ tolerate insects/pests, weed invasiveness, diseases, drought, salinity and other harsh weather conditions (global warming) thereby increasing productivity and income for farmers. It can also be applied to develop crops that are nutritionally enhanced.

She also stated that these crops are safe and their safety have been certified by the World Health Organization (WHO), Food and Agricultural Organization (FAO) and



■ Prof. Lucy Ogbadu, Director-General/CEO, NABDA

other scientific institutions.

She gave the general overview of biotechnology and GM crop production after which she declared the workshop open.

## Courtesy visit to Ministers office

### Biotechnology is not a new technology - DG NABDA



■ Prof. Lucy Ogbadu, Director-General/CEO, NABDA

In her remarks during a courtesy visit to the Hon. Minister of Agriculture and Rural Development, Chief Audu Ogbe, the Director General/CEO NABDA, Prof Lucy Ogbadu said Genetic Engineering is not a new field for any graduate of biochemistry,

microbiology or any of the biological sciences which is studied in most of the Nigerian tertiary institutions. She argued that most of the individuals speaking against the technology do not have a science background and do not understand what it is all about.

She said as far back as 2000 when the National Biotech Policy was developed, the government of Nigeria had the political will to ensure that biotech drives the economy of the country as it is in other places.

DG NABDA explained that the countries that have embraced biotech early enough are already deriving its benefits. One critical area of biotech is agriculture, though it cuts across other sector like medicine, industries, environment but people are not worried about these other fields and the traditional aspect of biotechnology which have been in practice by our fore fathers.

Recalling that about 110 Nobel laureates from all over the world came up to affirm the safety of GM

technology. The DG added that credible scientific institutions all over the world have confirmed GMOs to be safe for human consumption and is an efficient tool that can be used to reduce poverty, hunger and malnutrition.

“The government of Nigeria took the right decision by setting up the National Biotechnology Development Agency in 2001 because of the interest it has in using modern biotechnology to improve the economy of country. We should not allow the debate to take us back. We have to apply this technology to produce improved and sustainable food for Nigeria, she reiterated”.

In highlighting the status of commercialized GM crops in Africa, the DG Indicated that Sudan, South Africa, Egypt and Burkina Faso have commercialized various crops and reaping good benefits from it, similarly she stated that Nigeria has 4 biotech crops in the pipeline and they are Bt. Cowpea, Africa Biofortified Sorghum, Bio Cassava plus and NEWEST Rice.

# Interactive session with the Minister

**R**eacting to the Presentation made by the DG, the Honourable minister asked the reason why there are lots of argument about GMOs in Europe and other developed countries.

While Prof M. Ishiyaku responded that most of the argument around GMOs in Europe and other countries is because of hype and other political reasons. *“In my personal opinion, Europe was left behind in the development of the technology and the Americans were far ahead of the process. The Europeans then started to counter the technology and many organizations and individuals including our journalists followed suit without knowing the science behind the technology. The summary is that as a country, I don't want the Hon. Minister to think biotech will solve all our problems but there are areas that require the use of modern biotech to solve most especially in agricultural production and utilization of our crops. Problem like drought, salt tolerant, insect resistance has a limit to which it can be solved using conventional means so we have to borrow from this cutting-edge technology develop new improved varieties from them”*, he reiterated

Prof. Ishiyaku added that the Cartagena protocol is a feeling of the international community that if GMOs are said to be safe, they should be subjected to scientific testing and to ensure there is no risk and that is what NBMA has been empowered to do.

Following up with more questions, the HMA said he has been asking questions during conferences and events about GMOs. *“With the visit paid to me today, I am impressed to hear what GMOs can do for the agricultural sector in Nigeria. 2 weeks ago, Bill gates was here and I asked him about GMOs and he said something similar to what you have said. When you do your experiment, do you imports the beans seeds or you use the local germplasm? We are thinking of ways we will improve our quality of crops by cross breeding and artificial*

*insemination for animals. How is the modification done?”* He asked

Prof. Ishiyaku responded that in the process of modification involved the use of our local and the only addition is the gene that is conferred on the plant of interest *“Example, in Cowpea, over 15,000 germplasm materials were screened for resistance to a particular insect but not a single one of it had that resistance so the option left for us is to apply this new gene technology by identifying a gene that will protect the plant against that insect attack which we succeeded in doing. We have used conventional breeding techniques to transfer this gene to our local plant varieties which is undergoing testing and as soon as it is completed and in compliant with the requirements of the National Agricultural seed council for variety release it will now be presented for release”* he explained.

**Honourable Minister of Agriculture:** *What can be done for our cotton industry since our yield is very low 300kg per hectare because I heard Bt. Cotton is okay but we should prevent rushing into adopting it or making use of its seeds?*

Mr. Damilola Eniayeju, the then Director, FDA, FMARD responded to the question citing examples with the experience of Burkina Faso farmers on Bt. Cotton. He said: *when Burkina Faso farmers saw the potentials of Bt. Cotton, they were asked not to grow it that the oil from the seeds had Bt. gene which is not good for consumption. But knowing that cotton was their main source of export, they went ahead to plant Bt. Cotton and then realized that the that and realized the yield was more than that of the conventional cotton and also the oils from the seed was not harmful so they went ahead to commercialize.* He also told the Minister that Monsanto company is ready to collaborate with Nigeria to develop and commercialize Bt. Cotton while Dr. Rose Gidado, OFAB Nigeria Coordinator remarked that they have already set up a Confined field trials structure in NABDA and



■ Chief Audu Ogbah, Honourable Minister, Federal Ministry of Agriculture and Rural Development

filed an application with NBMA.

Adding their voices to the discussion, DG NBMA, Mr. Rufus Ebegba indicated that the Biosafety agency was set up to checkmate the practice of agri-biotech and ensure that it is safely done. He also disclosed that the Agency has enough capacity required to carry out this task and Prof. Ishiyaku brought to the notice of the Minister, the role AATF has been playing in the development and deployment of Bt. Cowpea in Nigeria in addition to providing other agronomic services.

Finally, the HMA expressed his satisfaction with the visit paid to him and clarifications made about GMOs and agricultural biotechnology. He Stated that agriculture over the world is facing some challenges like climate change, insect attacks, low yield and productivity and a lot has been done using conventional breeding to solve these challenges. He said Nigeria must embrace modern biotech and also indicated interest in collaborating with all institutions concerned to bring about a proper deployment of biotech especially in the cotton industry. He pledged to work with Monsanto and AATF to revitalize the agricultural sector by applying all forms of technology necessary to bring about increased productivity, yield and increased income for farmers especially as Nigeria is looking forward to diversify the economy through agriculture.

# Questions asked by the participants

## 1. What is the way forward in terms of implementation and education of our poor and illiterate farmers?

Mr. Francis Onyekachi from AATF, responding to the question said, "farmers are involved at every stage of the trials of these crops. He narrated how they bring farmers together during trial planting of seeds and how much information and best practices farmers share with them in return on how to maximize yield. He also added that seeing-is-believing tours are organized by OFAB for farmer leaders who are expected, in-turn teach other farmers about GM crop".

## 2. What would be the process of transition flow in consideration of non-GM crops

Dr. Chiedozi Egesi explained that naturally, seed gene flow and cross pollination occurs in most crops without humans taking notice of them and that will not be different from GM crops. He added that the concern has been a major issue raised by the anti GM group but that these flows will have no harmful effect on the non-GM crop. He also stated that the biosafety Act spells out best practices to prevent gene flow and has made adequate provisions that takes care of it.

## 3. What are the legal implications of Agricultural Biotechnology?

Dr. Tejan Cole explained that the legal aspect of GM crops can be applied when one goes against the provisions made on the Biosafety Act or when the anti-GM groups take the Pro-GM groups to court over Biosafety concerns. Also, Socio-economic considerations and fairness can amount to some legal issues and that is why lawyers are being trained to know the law incase such issue arises.

### Moot Court Trial

A moot court session was demonstrated at the workshop with one side acting as the prosecuting counsel and the other acting as the defence council. The case as to whether or not to commercialize GM crops was well argued by both parties. This session was very lively as it demonstrated that the lawyers gained a lot of knowledge from the presentations made during the technical session.



This is my verdict; GMO technology is not new, the crops are as safe as the traditional crops, they are even better because, they produce higher yields per square metre, help preserve the soil, they are cost effective and would provide food for the world's growing population.


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