

The GMO Situation in Libya

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Debate

- **The scope of Benefit/Hazard of GMO is not well identified nor argued among the Libyan public.**
- **Unlike pesticides or food additives.**
- **There is NO active legislation controlling production or importation of GMOs in Libya yet.**

- Other similarly critical issues, food products, are controlled by **very conservative** law:
 - “ALL food products must be FREE of pathogenic microorganisms and their toxins.”
- Source of Legislation on food and drugs specifications is:
The Libyan National Center for Standardization and Metrology

■ **Committee of the Biosafety Project in Libya:**

- Implemented the Cartagena Protocol on Biosafety which Libya acceded to on 12 June 2005
- The Protocol regulates the handling and transfer of GMOs.
- It does not regulate import or manufacture of GMOs.

- **GMOs production or detection involves implementation of genetic engineering and molecular biology tools.**
- **Libya is still in the first phase of biotechnology applications.**
- **There is growing effort, although not collectively organized, in molecular biology research, very little of which involves GMOs.**

- Research in the field of modern biotechnology (at the DNA level) is limited to institutional activities by researchers and graduate students.
- The private sector has no participation in any front of biotechnology.
- The establishment of the **Research Centre for Biotechnology** in 2000 was the starting point for the transfer and adoption of modern Biotechnology in Libya.

- Work in the field of recombinant DNA in Libya is still very limited due to:
 - Lack of equipped laboratories.
 - Shortage of trained personnel.

- Libyan regulations require provision of GMO free certificate from the country of origin for the imported materials to be allowed in the country.
- Until now, there is no laboratory in Libya with sufficient scientific and technical capacity to verify the credibility of the GMO free certificates, despite the presence of a centre specialized in the control of food and medicines.

- **Center for Food & Drug Control** dispatches samples of imported grain foods to **Research Centre for Biotechnology** for molecular analysis of GMO status.

- With regard to the import of seeds for agricultural production, the related institute has issued a decree in 2006 which prohibits the import of all kinds of seeds from abroad.
- Monitoring and recording of GM cereals and seeds is often times guarded by overlapping agencies:
 - Center for Food and Drug Control
 - Environment General Authority
 - National Centre for Seed Multiplication

Existing laws

- Existing laws are either obsolete or not matured:
- Health Law (106) 1973
 - Still in effect! NO GMOs by then.
- Law No. (15) 2003 on the protection and improvement of the environment.
 - focuses on the protection of air, fisheries, water resources, **food**, sanitation, vegetation and wildlife. This is the only law that directly addresses biosafety issue.
 - NOT YET IMPLEMENTED

Promising Law

- **The Permanent National Committee for Biological Ethics and Biosafety**
 - Adopted a proposal of a law which limits trade of genetically modified food and its products in Libya.

- **The African Union Heads of State have made decisions during their Extra Ordinary Summit held in Sirte, Libya in February 2004 and at the 5th Ordinary session held in Sirte Libya 2005 to explore the potentials of Genetically Modified Organisms (GMOs) in agriculture; address the seed sector; and improve Early Warning Systems for Food Security.**

Jeopardy or Jackpot?

- **Can we detect all GMO?**
 - **Other than 35S CaMV promoter.**
 - **Antisense genes.**
 - **Chris Hansen Starter Culture in Libya:
Inhibited recultivation!**
 - **Presence of PCR inhibitors.**

In Conclusion

- **With respect to GMOs in Libya we're still in the beginning in:**
 - Regulation
 - Detection
 - Research & Development
- **Not yet started in:**
 - Production
- **How far are we in consumption?**
UNKNOWN!

THANK YOU