

**7TH AFSTA CONGRESS
5 - 9 MARCH 2007**

**ZAMBEZI SUN HOTEL
LIVINGSTONE - ZAMBIA**

CONGRESS PROCEEDINGS

**SPEECH BY HIS EXCELLENCY LEVY MWANAWASA – PRESIDENT OF THE
REPUBLIC OF ZAMBIA**

Honorable Mulyata, Provincial Minister for Southern Province

Mr. Mark Sachs, President of the African Seed Trade Association

Hon. Kabinga Pande, M.P. – Minister of Environment, Tourism and Natural Resources

Mr. Deon van Rooyen, President of the International Seed Association

Senior Government Officials

Distinguished Members of the Executive Committee of AFSTA

Participants of the Congress

Ladies and Gentlemen

It gives me great pleasure on behalf of the government and the people of Zambia to warmly welcome you all to this country. I understand that this gathering has attracted at least 180 delegates from 33 countries from Africa and beyond. We are greatly honored by this. For those of you coming to Zambia for the first time, we invite you to come and visit us again and it is my hope that you will find this venue pleasant, exciting and appropriate for your business. For those of you visiting Africa for the first time, you are most welcome to this exciting continent.

Mr. President of AFSTA and members of the executive committee, we are grateful that you honored Zambia to be the venue of this year's conference following the one that you held in Uganda the last time. I have also been informed that your choice of Zambia was in recognition of the progress that this country has made in developing the seed industry. I wish to thank your organization for this kind consideration. I hope and trust that indeed there will be many delegates who will have learnt something while in Zambia. In turn, I am certain that Zambians will learn something from their colleagues coming from other parts of the world.

LADIES AND GENTLEMEN

The seed industry that you are discussing at this conference is very important for the agriculture sector. The success of any agriculture industry must of course first and foremost be preceded by a successful seed industry.

For us in Zambia, this conference and its importance on agriculture is vital because the government has accorded the agriculture industry the top priority in our development effort. This is so because the vast potential that exists for this sector as reflected in abundance of land and water resources. In addition, most of our people depend on agriculture for their livelihoods and they will continue to do so for many more years. We therefore have great interest in seeing a successful seed industry in our country.

In this regard in 2004, my administration passed the national agriculture policy as the guiding policy framework for the developing sector. The national agricultural sector policy seeks to facilitate and support the development of a sustainable and competitive agricultural sector that assures food security and maximizes the sectors contribution to Gross Domestic Product (GDP) as well as earning the country valuable foreign exchange through exports.

The policy prioritizes the agriculture sector role in the provision of national and household food security, industrial development, income generation and employment through strengthening and monitoring of liberalized markets, increased participation of the private sector and diversification of production, efficient provision of agricultural services, infrastructure and development and promotion of appropriate technologies.

Ladies and Gentlemen:

We in Zambia have long realized the importance of improved seed in sustaining national and household food security and other objectives of our agricultural policy that I have just outlined.

As a measure to promote the seed industry, our national research and seed policy was deliberately designed to advocate for the separation of responsibilities between private and public sectors. Public sector research for example, concentrates on basic research and research into noncommercial crops that are however important for food security. On the other hand, research into crops with commercial value like maize soybeans and wheat is being done by the private sector.

This policy framework has provided fertile ground for the private seed companies to do business. To this end, we are proud to house five seed companies in the major food crops comprising two international companies and three local companies. This is not to mention the various enterprises involved in the supply of vegetable seed. I am informed that many other seed companies are establishing their bases including some that left when policy framework was still wanting.

From the foregoing, it is clear that the seed industry in Zambia has demonstrated the great response to our policy framework and which has emphasized partnership between government and the private sector. But more needs to be done. I am happy to inform the conference that the government has made great strides toward preparing legislation to protect the rights of the plant breeders.

By providing the protection to this intellectual property, which to a very large extent is what breeding is, we are confident that many more investors in the seed industry will be attracted to our country. Once we have legislated this, Zambia will join other countries in the region such as South Africa, Zimbabwe and Tanzania who have already done so.

As a country that is surrounded by eight sister republics, we find ourselves in a situation where our agricultural development does not take us very far unless we all together move forwards. We have interest in seeing progress all around because at times we face droughts and we may depend on our neighbors to supply us with part of our food requirements. Similarly, our neighbors sometimes have a need and we must step in to assist them. In deed this principle is true at the continental level and even at the global level.

For this reason, we feel in Zambia that action is needed to strengthen trade in seed. If Zambia faces a drought and she cannot satisfy her next season's seed requirement, she needs to be able to call on her sister countries to satisfy this need.

Given the sensitivity and biosecurity issues relating to seed, it is clear that such trading in seed can only be undertaken if the countries work together to develop harmonized seed laws and regulations not only to be the backbone of trade but also to encourage the trade.

This, as I have been made to understand, is one of the key tasks that you will be deliberating at this conference. I wish you great success in this endeavor. I want to inform you my government as well as others especially of this region look forward to receiving your recommendations which we shall study with great interest.

I have the hope that your recommendations will further strengthen the seed industry in Zambia and in the region as a whole. For the seed breeders and growers who will further be encouraged by this developments, I wish to invite you to come to Zambia to invest in our abundant land and produce more seed for both the local and the export market.

We are blessed with 60% of the SADC surface water resources, vast arable land, good temperature and rainfall. In the centre of Africa and surrounded by eight neighbors, Zambia is a good production and distribution country for agricultural products to the rest of the continent.

Ladies and Gentlemen:

Zambia has the right environment for both production and conditioning of seeds while our central location is important for regional and continental seed trade. We are one of the seven countries in Africa with an international seed testing association accredited laboratory for international seed trade.

We are also endowed with good human capital in seeds. Today we stand here as a net exporter of certified seeds to the common market for east, central and southern Africa. (COMESA). The opportunities are there to be grabbed.

Ladies and Gentlemen:

There are a number of challenges that the seed industry faces in Africa that may include poor infrastructure and differences in seed laws and regulations. Since you are now dealing with recommendations for harmonizing laws and regulations, what remains now is infrastructure. In this area, I am happy that in our region, good progress is being made to fix the infrastructure that will enhance trade in many commodities including seeds.

Ladies and Gentlemen:

Finally I wish you every success in your congress. Once again I trust that you will enjoy your stay in Zambia. Livingstone has been strategically chosen as the venue for this congress. It is our tourist capital. Please enjoy the treasures of the Victoria Falls, one of the Seven Wonders of the World, and the surrounding parks and amenities to tell the story back home.

SPEECH BY MR. MARK SACHS – PRESIDENT OF THE AFRICAN SEED TRADE ASSOCIATION

(SEVENTH AFSTA CONGRESS 2007 – LIVINGSTONE, ZAMBIA)

His Excellency Mr. President of the Republic of Zambia,
Honorable Minister for Agriculture and Cooperatives,
Mr. President of the International Seed Federation,
Distinguished guests from various international and regional organizations,
Ladies and Gentlemen.

On behalf of the members of the Board of the African Seed Trade Association and myself, I would like to extend a warm welcome to all of you, and in particular, His Excellency the President of the Republic of Zambia, to this, the seventh AFSTA congress 2007 here in Livingstone, Zambia.

Your attendance, your Excellency, shows your strong support to AFSTA, our continent's seed trade association through which we can combine our voices and efforts to improve African agriculture, particularly the improvement of seed supply to African farmers.

I would also like to express my sincere appreciation to you for making the time available to be with us today in spite of your very heavy work load. This great honor you have bestowed upon the African Seed Trade Association will be unforgettable in its history and will go a long way in raising the standard of the AFSTA congresses. Please join me in giving our esteemed guest a round of applause.

We are excited to have this opportunity to be here in Zambia to learn more about the country, its people, its culture, its economy and most importantly its seed sector and the opportunities that may exist for investment.

It is hard to believe that a year has passed since we were last gathered in Entebbe, Uganda, and here we are again participating in this annual important event for the African seed industry and globally. I do believe that, like the former congresses, it will be a good opportunity for all of us to strengthen our business relationships and to make new friends. We must, however, not lose sight of the congress programme and carefully debate the selected key topics which will, without doubt, chart the way forward for the seed industry in Africa.

What is it that drives AFSTA – It certainly must be the contribution we can make, with our membership and networking, to the improvement and the attainment of food security in Africa. This objective requires a firm commitment of all the stakeholders and the knowledge that our task is not without challenges and is not easy. I do believe that each one of us, as an individual or an organization, by aspiring to make improved seeds available in sufficient quantities to our farmers, will be making a huge contribution to the food security objective.

By implication, therefore, the requirement for strong regional seed trade sectors should be promoted so that farmers have better access to superior varieties. Indeed, the on-going harmonization process of seed regulations in the Southern Africa Development community (SADC), in the East African Community (EAC), in the Economy

Community of West African State (ECOWAS) and West African Economy and Monetary Union (WAEMU), has reached certain mile stones and will favorably influence the seed trade in these Regional Economic Communities.

The private seed sector is pleased with the progress of this development and encourages governments to turn the agreements reached into reality.

Let me take to this opportunity to confirm once more the willingness of AFSTA, being the representative body of the African private seed industry, to work closely in partnership with the public seed sector to foster the seed trade on the continent and globally. It should be clear to all now why AFSTA has given a priority to and is absolutely focused on, as one of its objectives, the creation and reinforcement of national seed associations. In reality, the crucial role of national seed associations in shaping national seed industries cannot be overemphasized.

AFSTA is now 7 years old. Throughout these past seven years, it has achieved a lot for the African seed industry and has stuck to its objectives and mission defined during its inception in Pretoria, South Africa in 2000. In summary:-

- AFSTA has been registered, has an office, Secretariat and staff in Nairobi, Kenya;
- AFSTA has been recognized by various international, regional and national organizations as the representative body of the African private seed industry;
- It has and continues to participate in several international and regional forums on the seed industry;
- It has considerably improved the communication among the African seed people and globally;
- It actively participates in the harmonization process of seed regulations in Sub-Saharan Africa;
- AFSTA issues a quarterly Electronic Newsletter to inform AFSTA members and wider audience about seed news in Africa;
- Many workshops and training platforms have been organized by AFSTA such as Agribusiness management, Seed Certification, Plant Variety Protection, Biotechnology, Seed Association Management, etc. for its membership and seed stakeholders at large;
- There have been meetings of AFSTA members and seed stakeholders at large with the International Agricultural International Centers with a view to accessing the material entrusted with them for wider market use;
- Under AFSTA auspices, the organization of its annual congresses for the last 7 years, which have been in Cairo, Dakar, Nairobi, Hammamet, Yaoundé, in Entebbe last year, and now in Livingstone;
- AFSTA has facilitated the creation of several national associations and has reinforced the capacity of the existing ones through training or giving communication equipment;
- 5 position papers on various important topics for the seed industry have been adopted for membership guidance and unity; and
- Increased its membership from 37 members in 2000, to 67 paid up members currently and of which 21 are national seed associations from Africa.

These achievements are due to AFSTA members and each one of us in this gathering today. Your Board of Directors is currently reviewing the existing strategy and refining it for the

guidance of our future. It is imperative that we keep this momentum going as we still have a long way to go in advancing the cause of the African seed industry.

It must be acknowledged that we have had invaluable support of various kinds from our donors, regional and international bodies to which we wish to record our grateful appreciation. Our sincere hope is that we will continue moving forward hand in hand for a better future of the African seed industry in general and the emergence of small and medium seed enterprises to meet the specific needs of farmers in particular.

We also call upon all potential members inside and outside Africa to join AFSTA so that you can bring your contribution to the noble cause of food security for the African population through the promotion of the seed trade in the continent.

We wish to recognize the presence of:

The President of our mother association: the International Seed Federation, Mr. Deon van Royeen and also its Secretary General, Mr. Bernard Le Buanec, who is among the initiators and founders of AFSTA and has consistently, supported it;

Our sister association: the Asia Pacific Seed Association (APSA), represented by its Director, Dr. Sampan Campiranon, We look forward to establishing a links between Asia and Africa;

The representative of the African Union who has cooperated with AFSTA for the promotion of agriculture in general and the seed industry in particular in Africa, Dr. Edson Mpyisi;

All the international and regional organizations: ISTA, FAO, UPOV, SADC, OAPI, OECD and all the international agricultural research centers.

We do believe that your presence will greatly improve our discussion on the topics in the congress program.

Now, it is time for us to thank the Chairman of the National organizing Committee of this congress 2007, Mr. Marcel Kanungwe, all the NOC members, and the entire Zambian seed industry for having worked tirelessly to ensure that AFSTA congress 2007 meets the expectations of all delegates. Your efforts are most fruitful and this deserves a round of applause by way of appreciation to all of you.

We also thank all the speakers for this congress for having made an effort to share your knowledge and your experiences with all the delegates.

Our sincere thanks go to SYNGENTA, which is the main sponsor of AFSTA congress 2007 as it has been for the last four years. We hope that our cooperation will continue and that SYNGENTA will also participate so generously in future AFSTA congresses.

We would also like to thank all other sponsors whose contributions are greatly appreciated. .

In conclusion, it would be most inappropriate not to thank you, members and all delegates for being here. We invite you to actively participate in all the activities of the AFSTA congress 2007 and we wish you all an enjoyable congress 2007 and an enjoyable stay in Livingstone, the home of the mighty Victoria Falls.

Excellency,

Once more thank you very much for being with us, and we really look forward to your address today.

Ladies and Gentlemen, I thank you for your kind attention, and present to you His Excellency, The President of Zambia

Mark Sachs
President of AFSTA

SPEECH BY NOC CHAIRMAN MARCEL KANUNGWE

THE LIVINGSTONE 07 CONGRESS - OPENING SPEECH

- THE GUEST OF HONOUR
 - H.E. THE PRESIDENT OF THE REPUBLIC OF ZAMBIA
 - MR. LEVY PATRICK MWANAWASA S.C.
- HON MINISTER OF AGRICULTURE AND COOPERATIVES
 - MR. BEN KAPITA
- HON. DEPUTY MINISTER FOR SOUTHERN PROVINCE
 - MR.....
- THE PRESIDENT OF INTERNATIONAL FEDERATION
 - MR DEON VAN ROYEEN
- THE AFSTA PRESIDENT
 - MARK SACHS
- DISTINGUISHED GUESTS, LADIES AND GENTLEMEN.

IT GIVES ME A GREAT PLEASURE TO WELCOME YOU ALL TO THIS 7TH AFSTA CONGRESS BEING HELD IN THE BEAUTIFUL AND HISTORIC CITY OF LIVINGSTONE, THE HOME OF ONE OF THE SEVEN WONDERS OF THE WORLD, WHICH IS THE MIGHTY AND FAMOUS MUSI-O-TUNYA (VICTORIA FALLS).

ON BEHALF OF THE ZAMBIA SEED TRADE ASSOCIATION (ZASTA), I WOULD LIKE TO TAKE THIS OPPORTUNITY TO SINCERELY THANK YOU, YOUR EXCELLENCY FOR THE EXEMPLARY SUPPORT YOU HAVE GIVEN US TODAY DEPSITE YOUR VERY BUSY SCHEDULE. THIS IS AN OCCASION WE WILL ALWAYS TREASURE IN THE HISTORY OF THE AFRICAN SEED TRADE.

. INDEED, YOUR EXCELLENCY, YOUR PRESENCE CLEARLY SHOWS THE HIGH PRIORITY YOU HAVE GIVEN TO AGRICULTURE, AND IT IS FOR THIS REASON THAT ZAMBIA TODAY IS FOOD SECURE.

MAY I ALSO EXTEND MANY THANKS TO OUR INTERNATIONAL GUESTS AND DELEGATES WHO HAVE TRAVELLED FROM ALL PARTS OF THE GLOBE TO COME AND BE WITH US AS WE DELIBERATE MATTERS OF THE AFRICAN SEED TRADE.

SIMILAR APPRECIATION GOES TO OUR LOCAL GUESTS AND DELEGATES. YOUR ATTENDANCE IN LARGE NUMBERS IS A MAJOR MORAL BOOSTER. IT REFLECTS THE TRUE ZAMBIAN SPIRIT. THANK YOU.

TO ALL SPONSORS, PLEASE BE ASSURED OF OUR HEARTFELT THANKS FOR YOUR INVALUABLE SUPPORT THAT GOES A LONG WAY TO THE SUCCESS OF THE AFSTA CONGRESS 2007.

I WILL BE FAILING IN MY DUTY IF I DID NOT COMMEND MEMBERS OF THE ZASTA ORGANIZING COMMITTEE FOR THEIR GREAT INPUT IN PREPARING FOR THIS CONGRESS AND MAKING IT A SUCCESS.

LE T ME NOW SAY A FEW WORDS ABOUT THE ZAMBIAN SEED INDUSTRY

YOUR EXCELLENCY, DISTINGUISHED GUESTS, FELLOW DELEGATES, LADIES AND GENTLEMEN. I WOULD LIKE TO BELIEVE THAT ALL OF US GATHERED HERE SHARE ONE DREAM. TO SEE THE AFRICAN CONTINENT AND OUR INDIVIDUAL COUNTRIES FREE FROM HUNGER AND POVERTY THROUGH THE USE OF IMPROVED SEED.

THE SEED INDUSTRY HAS GONE THROUGH REMARKABLE TRANSFORMATION FROM STATE DOMINANCE PRIOR TO INDEPENDENCE THROUGH PUBLIC/PRIVATE SECTOR PARTICIPATION TO LIBERALIZATION. THESE CHANGES HAVE INFLUENCED AND DETERMINED THE CURRENT STATUS OF THE INDUSTRY.

THE SEED PROGRAMME WAS INITIATED BY THE RESEARCH BRANCH OF THE MINISTRY OF AGRICULTURE TO PRIMARILY DEVELOP NEW VARIETIES OF THE COUNTRY'S STABLE FOOD CROP, MAIZE.

IN THE EARLY 1970'S THE FIRST LOCAL MAIZE COMPOSITES WERE DEVELOPED AND RELEASED FOR COMMERCIALIZATION. THE PROGRAMME EXTENDED RAPIDLY AND INCLUDED OTHER IMPORTANT CROPS.

THERE WAS NO PRIVATE INVOLVEMENT IN BREEDING OTHER THAN THAT OF THE UNIVERSITY OF ZAMBIA WHICH OFFERED SOME PARTNERSHIP IN VARIETAL DEVELOPMENT.

SEED PRODUCTION WAS ORGANIZED BY SEED SERVICES, NOW SEED CONTROL AND CERTIFICATION INSTITUTE (SCCI), A SECTION WITHIN THE RESEARCH BRANCH OF THE MINISTRY OF AGRICULTURE. THERE WERE INHERENT PROBLEMS IN THIS ORGANIZATIONAL SET UP WHICH RENDERED THE SEED DELIVERY SYSTEM WEAK AND GENETIC QUALITY DEGRADED.

CONSEQUENT TO THE ABOVE, IT WAS REALIZED THAT THE FUNCTIONS OF PRODUCTION, MARKETING, VARIETY DEVELOPMENT AND IMPROVEMENT HAD TO BE SEPARATED FROM QUALITY CONTROL. THUS SCCI WAS BORN.

ON THE OTHER HAND A NATIONAL SEED COMPANY WAS FORMED IN 1981 TO BE RESPONSIBLE FOR THE PRODUCTION AND MARKETING OF ALL TYPES OF SEED WITH THE EXCEPTION OF TOBACCO AND COTTON.

AN INDEPENDENT NATIONAL VARIETY RELEASE COMMITTEE (NVRC) WAS FORMED TO OFFICIALLY SCRUTINIZE AND RELEASE VARIETIES FOR COMMERCIALIZATION.

YOUR EXCELLENCY, DISTINGUISHED GUESTS, FELLOW DELEGATES, LADIES AND GENTLEMEN. IN 1991, THE ZAMBIAN ECONOMY WAS LIBERALIZED AND SO WAS THE SEED INDUSTRY.

WITHIN A SHORT PERIOD OF TIME, GOVERNMENT POLICY PAID OFF. SEVERAL COMPANIES WITH ADVANCED BREEDING AND VARIETY DEVELOPMENT PROGRAMMES ENTERED THE MARKET.THE MARKET WITNESSED:-

- RAPID INTRODUCTION OF NEW VARIETIES AND IMPROVED MARKETING STRATEGIES.
- THE PLANT VARIETY AND SEEDS ACT WAS AMENDED TO PROVIDE FOR PRIVATE SECTOR PARTICIPATION IN SEED CERTIFICATION BY WAY OF LICENSING. THE SCCI CONTINUED WITH MONITORING, ADVISORY AND COORDINATION OF THE SEED INDUSTRY.
- THE INCREASE IN THE NUMBER OF PLAYERS IN THE SEED INDUSTRY HAS BROUGHT ABOUT HEALTHY COMPETITION. THE KEY PLAYERS, HOWEVER, DECIDED TO WORK TOGETHER HENCE THE FORMATION OF THE ZAMBIA SEED TRADE ASSOCIATION (ZASTA). THE ASSOCIATION HAS BEEN A VITAL LINK BETWEEN THE PUBLIC SECTOR (GOVERNMENT) AND THE FARMER. THE LATTER HAS HAD ADEQUATE ACCESS TO TOP QUALITY SEED AND SERVICES PROVIDED BY ZASTA MEMBERS.
- THE IMPROVEMENT IN THE COUNTRY'S FOOD SECURITY SITUATION, ENJOYED FOR SEVERAL YEARS, NOW, HAS BEEN A RESULT OF THIS HEALTHY RELATIONSHIP.
- THE SEED TRADE GREATLY APPRECIATES GOVERNMENT'S INTRODUCTION OF THE FERTILIZER AND SEED SUPPORT PROGRAMME. IT HAS ENABLED MANY FARMERS HAVE ACCESS TO IMPROVED SEED AND FERTILIZER.

IT IS OUR HOPE THAT FARMERS WILL CONTINUE TO USE IMPROVED SEED EVEN AFTER THE END OF THE PROGRAMME.

YOUR EXCELLENCY, DISTINGUISHED GUESTS, FELLOW DELEGATES, LADIES AND GENTLEMEN, IT IS MORE THAN EVIDENT THAT PRIVATE COMPANIES HAVE STRENGTHENED THE SEED INDUSTRY AND HAVE BROUGHT IN CONSIDERABLE COST SAVING TO THE STATE:-

- SEED COMPANIES ARE DOING THE BULK OF CROP RESEARCH.

- VIGOROUS MARKETING STRATEGIES HAVE INCREASED EFFICIENCY IN SEED DISTRIBUTION.
- IMPROVED PACKAGING HAS RESULTED IN REDUCTION OF WASTAGE.
- INTRODUCTION OF FINANCIAL DISCIPLINE HAS BROUGHT IN VALUE CONSCIOUSNESS AMONG DISTRIBUTORS AND END USERS.

THERE IS HOWEVER, A MAJOR WEAKNESS IN THE ZAMBIAN INDUSTRY LIKE THAT OF MANY OTHER AFRICAN COUNTRIES. ZAMBIA HAS TO DATE NOT PASSED INTO LAW PLANT BREEDERS RIGHTS.

IN MY OPINION, AFRICA AND ZAMBIA INCLUDED ARE ENJOYING A FALSE SENSE OF SECURITY BY PRETENDING TO PROTECT THE PLANT GENETIC RESOURCE WITHOUT ANY LEGAL PROVISION.

YOUR EXCELLENCY, IT IS ZASTA'S AND AFSTA'S HOPE THAT YOUR PRESENCE WITH US TODAY WILL HELP BRING POSITIVE RESULTS AS YOU CONFER WITH OTHER AFRICAN HEADS OF STATE.

A DRAFT INSTRUMENT ON PLANT BREEDERS RIGHTS, FOR ZAMBIA HAS BEEN SUBMITTED TO GOVERNMENT FOR ACTION.

YOUR EXCELLENCY, DISTINGUISHED GUESTS, FELLOW DELEGATES, LADIES AND GENTLEMEN, ALLOW ME TO CONCLUDE BY AFFIRMING THAT THE ZAMBIAN SEED INDUSTRY HAS BENEFITTED GREATLY FROM AN EARLY START IN PUBLIC/PRIVATE SECTOR PARTNERSHIP.

WE IN THE SEED TRADE LOOK FORWARD TO CONTINUED GOOD RELATION WITH GOVERNMENT AND THE FARMING COMMUNITY.

WITH SURPLUS PRODUCTION CAPACITY, A GOOD CLIMATE AND A FUNCTIONING SEED QUALITY CONTROL SERVICE, ZAMBIA IS WELL PLACED TO BE A MAJOR PRODUCER AND EXPORTER OF SEED TO THE REST OF AFRICA AND BEYOND.

ONCE MORE, WELCOME TO THE AFSTA CONGRESS 2007 AND TO ZAMBIA. I DO BELIEVE THAT YOU WILL FIND TIME TO ENJOY THE VICTORIA FALLS AND ANY OTHER BEAUTIFUL PLACES UNDER THE ZAMBIAN HOSPITALITY.

I THANK YOU FOR YOUR KIND ATTENTION.

Plenary Sessions

ISF Seed Treatment Conference

Livingstone

Zambia

March 6, 2007

Welcome to the conference!

STEC Chairman

Gregory Lamka, Ph.D.

Seed Treatment and Environment Committee (STEC)

- Committee members: Seed Companies, Seed Treatment Providers, and Seed Coating Companies

- Facilitate understanding and co-operation between the Seed Business and the Seed Treatment Business---address issues of common concern

- Currently holding a series of informational seminars around the world: India, Chile, Zambia, & next year Prague

Seed Treatments

- In the broadest sense includes any products or processes applied to seed

- Today we will primarily focus our comments on crop protection products applied to seed

Disease Triangle

Role of Seed Treatments

Why the increased interest in seed treatments today?

- Seed treatments have a very small environmental foot print

- Several new seed treatment products have systemic activity

- Some of the new seed treatment products offer significant business opportunities

Program

- Introduction

Greg Lamka

- General Presentation on Seed Treatments

Bernard Le Buanec

- Trends & New Technology in Seed Trts.

Manfred Hudetz

- Operator and User Safety

Bernd Holtschulte

- Application Technology & Chemical Loading

Jan Willem Breukink

- Labeling & Waste Management

Greg Lamka

Primary function of seed coating is to improve plant ability by:

- Pelleting
- Encrusting
- Film coating

Excellent carrier of additives

Why applying Plant Protection
Products (PPP's) on seed?
Optimal target control of pests
Very efficient use of a.i.
Low environmental impact
Safety benefits

Pelleting
Pelleting
Film coating

A process by which PPP's are applied to the seed by using special designed film coat liquids

The shape of the seed after the treatment has not changed

Binder for actives (PPP's)
Reduced dustiness
Enhancing the appearance of the seed
Improved flow ability
Improved distribution of additives
Release properties

Plant Protection Products (PPP)
(e.g Fungicides/Insecticides)
Biologicals (e.g. Fungi/Bacteria)
Nutrients (e.g. Micro nutrients)
Growth Regulators (e.g. Gibberellins)
Repellents (e.g. Birds)
Various
PPP's in seed coating
Application by specialists (industrial process)
Application where needed on the seed
Application with sophisticated equipment

Application can be done in closed systems
Targeted application leads to low dosages per hectare
Less direct contact with active ingredient(s)

Safe for workers
Safe for the environment

Seed versus spray application
High loading of a.i. per seed
possible from a few gram up till
more than 1 kilo per kilo seed.

Seed and soil born diseases mostly with basic seed treatments with contacts
PPP's

Young plant diseases and crop diseases more and more with state of the art seed
treatments often with systemic PPP's

Trends seed industry

Strong growth in seed treatments WW (2002 \$ 1167 million → 2007 \$ 1556
million)

More and more systemic PPP's as seed treatment used

Pressure from market to reduce quantities of PPP's per acre

More and more new PPP's introduced by CP industry as seed treatment

Conclusion

Seed treatments will become more and more important

Seed treatments have significant benefits for safety and environment

Seed treatments are an important tool for the modern seed industry

Thank you

ISF

Seed Treatment Conference

Livingstone, Zambia

March 6, 2007

Outline

Introduction

Principles

Conclusions

Practical Recommendations

Operator Exposure Models

general information

SeedTropex

Perspective

Introduction

PPP applied as seed treatments provide a favourable way of protecting the crop

limited quantity of active ingredient

targeted to seed with precise doses
application under controlled conditions with benefits for the environment

Since > 40 years operator contact to crop protection products (CPP) is a concern
of registration authorities in Europe

Introduction (cont'd)

effects on operators and users due to
dermal contact
inhalation

Presentation is based on „Seed Treatment Operator Safety Guidelines“ (STEC
of ISF)

„www.worldseed.org/seed_treatment.htm“

Regulatory

Worker protection is regulated by the government in many countries
regulations to be implemented for seed treatment applications
operator safety assessment is part of the product registration process in most
countries

incl. identification of hazards inherent to products
assessment of risk associated with application of CPP

Principles

Choice of appropriate PPP

only products with approval for use as seed treatment (ST)
products have been specifically evaluated for ST application to minimize
operator exposure

Principles (cont'd)

Use of appropriate seed processing equipment to reduce exposure of workers
e.g. air exhausting systems
closed systems

Principles (cont'd)

Develop clean working practices
reduce contamination
minimize emergencies or accidents

Principles (cont'd)

Clean and safe storage of PPP

avoid bad hygiene and poor image for seed treatment!

ideally use of closed transfer systems

clean

limited handling steps with product

Principles (cont'd)

Use of appropriate personal protective equipment (PPE)

coveralls

gloves

apron

rubber boots

face visor

filter masks

respirator

Principles (cont'd)

Training and operator awareness

training of operators to respect best practices

information on products used must be available (MSDS)

specific training by industry if necessary

Principles (cont'd)

Conclusions

Two things required for safe seed treatment

(1) commitment by managers to support the highest standards of operation and safety at the treatment plants, including

continuous operator safety training

maintenance of high operating standards

keeping best working practice at the top of operator's minds

Conclusions (cont'd)

Two things required for safe seed treatment

(2) commitment by plant operators to learn about and understand products and equipment used and operate in the safest possible ways, including

positively applying training to improve own and others safety

Practical recommendations

„Seed Treatment Operator Safety Guidelines“ (STEC of ISF) on

www.worldseed.org/seed_treatment.htm

check list for plant managers

training status of the team; products used; processes and machinery

check list for operators

important questions and measures before, during and after operations

Operator Exposure Models

General information

European Approach to CPP registration covered by 91/414/EEC

harmonized approach: Use of the European Predictive Operator Exposure (EUROPOEM)

principle: estimation of amount of exposure for different situations; prediction is compared with AOEL (based on toxicity studies)

Operator Exposure Models

AOEL (acceptable operator exposure limit) is derived from ...

NOAEL (no-observed adverse effect level; in most sensible animal and for most critical relevant adverse effect)

AOEL = NOAEL / 100 (safety factor)

Operator Exposure Models

additional models are „German BBA Model“, „UK POEM (UK-model)“ and „PHED (US-model)“ (for granules); best structural and functional aspects implemented in EUROPOEM

Challenge

no special focus on Seed Treatment in the models

Operator Exposure Models

SeedTropex Model

poster „Seed Treatment - User Safety“

series of studies concerning operator exposure in seed treatment

funding by a group of companies within the British Agrochemicals Association

BAYER, Agrichem, Monsanto, Syngenta, Uniroyal

SeedTropex - poster

Perspective

Guidelines can only complement the laws and rule of government or state regulations

Improving procedures and operator safety is a long-term process

relies on commitment of plant management to quality improvement and on motivation for practical training of treatment machinery operators

„Be aware of the sources of contamination and the level of risk involved in each operation!“

SeedTropex-Poster

Labeling and Waste Management of Treated Seed

Gregory Lamka, Ph.D.

Pioneer Hi-Bred Int., a DuPont Company

Guidelines on Labeling of Treated Seed

Publication available

Guidelines on Labeling of Treated Seed

•The STEC has discussed labeling of treated seed at length and believes the seed industry should be proactive in labeling treated seed.

- The following recommendations should be considered minimum requirements.
- Labeling should be seen as only one means to achieve good seed treatment stewardship.
- Multiple approaches should be used to insure that treated seeds are planted in a way that minimizes risk to all workers and the environment.

Guidelines on Labeling of Treated Seed

- Mission: STEC has established a guideline for labeling of treated seeds, so that the farmer gets the required information/recommendations.
- Goal: Labeling will be ensured on a worldwide basis to include sufficient and appropriate information to the end-user on the following :
 - Information on the active ingredients: target pests or diseases
 - Precautions to enhance operator protection
 - Precautions to reduce risk to the environment and wildlife

Guidelines on Labeling of Treated Seed

- (Adopted May 2004)
- When labeling treated seed, companies have to carefully consider the legal requirements of the country where the seed is sold and must comply with these requirements.
- STEC considers that the following minimum information should be indicated on the label of the treated seed:

Minimum Label Information

- Seed treated with: the name(s) of the active ingredient(s)
- The seed company name
- Contact information (if possible a 24-hour contact number in case of emergency)
- Handling precautions as required by regulations
- Environmental protection as required by governmental regulations
- A special warning “Do not use for food, feed, or oil purposes” or equivalent

Waste Management

Industry Guidelines for the Disposal of Seeds Treated with Crop Protection Products

Seed Treatment and Environment Committee,

International Seed Federation

Issues related to treated seed

- **Periodic disposal of excess, obsolete, or substandard seed that has been treated with crop protection products**

- **Most seed treatment products when applied to seed make it ineligible to enter the food and feed channels (identified by the application of an unnatural color)**

Government Regulations

- **Need to develop relationships with national and local government regulators**

- **Understand the intent of regulations involving the use and disposal of seed treatment products**

Best Practices for Seed Production

- **Minimize the amount of treated seed to be discarded**

- **Reference the ISF website: www.worldseed.org**

Product Identification and Tracking

- **“Cradle to Grave” approach to seed treatment products**

- **Record all purchases of seed treatment products**

- **Track all uses/application (seed sales)**

- **Document all discard of treated seed, treatment dust, wash/rinse water, and seed treatment formulation**

Validation of the Disposal Agents

- **Does the Agent have the proper permits?**

- **Are you comfortable with the disposal method?**

- **Are the proper safety and health protocols in place?**

- **Do they have the capacity to meet your discard needs?**

Validation-continued

- **What security measures are in place?**

- **Develop a contract that specifies each parties responsibilities.**

Disposal Options

- **Waste Management Facilities-incineration or sanitary landfill**

- **Incineration for power or heat**

- **Alcohol Production**

- Composting

- Green Manure

- Wildlife Habitat Seed

Waste Management Facilities - incineration or landfills

- Advantages

- In the business of handling hazardous waste

- Proper permits and government contacts

- Accurate and reliable record keeping

- Disadvantage

- High fee structures because the treatment is a small portion of treated seed

Incineration for power or heat

- Advantages

- Seed is converted to energy at the facility

- These facilities operate at very high temperatures so incineration is complete

- Seed is a renewable energy resource

- Disadvantages

- They may not have all the permits needed

- Potential transportation and handling costs

Alcohol Production-fuel

- Advantages

- Substitute for hydrocarbon fuels

- By-products may be used to generate power through incineration (do not feed distillers grains)

- Disadvantages

- Potential transportation costs

- Facilities initially may not have proper permits

Composting

- Advantages

- Converts treated seed into soil supplement

- Decentralized process so less transportation costs

- **Disadvantages**

- **Service fees may be high**

- **Variability in time and conditions needed to break down seed treatment products**

- **Leaching and run off must be completely contained**

- **Ensure proper permits are in place**

Green Manure Crop

- **Advantages**

- **Clean, safe, and effective process**

- **Costs are relatively low**

- **Restores organic matter to soils and improves soil structure**

- **Disadvantage**

- **May have maximum product disposal per acre limits**

Wildlife Habitat Seed

- **Advantages**

- **Seed is used for intended purpose of planting**

- **Improving wildlife habitat is positive for public good**

- **Disadvantages**

- **May be additional handling costs**

- **Limited quantities of some seed species needed**

- **Potential for abuse of this type of program**

Summary

- **You must have a good understanding of the chosen disposal process**

- **Always consult with the manufacturer of the Crop Protection Product you are disposing of**

- **Be aware of legal requirements and proper permitting**

- **When in doubt, incineration by a hazardous waste company is the best option**

Status of Biosafety in Africa
Kinyua M'Mbijjew
Monsanto

AFSTA CONGRESS 2007 Livingstone
Zambia

FORMAT

Overview of biotech today
Elements of a biosafety system
Biosafety status in Africa today
Monsanto criteria biotech investments

Ongoing activities

Biotech just keeps growing
ISAA report 2006

The global area of biotech crops in 2006 increased to 250 million acres (102 m hectares), an increase of 13% over 2005.

The area planted to biotech has increased every year since 1996 by at least 10%.

Since 1996 the total cumulative area planted to biotech crops was 1.43 b acres (577 m ha), an area 25 times the total land area of the UK.

In 2006, 10.3 million farmers planted biotech crops in 22 countries, up from 8.5 million farmers in 21 countries in 2005.

6 EU countries planting biotech grew in 2006, Slovakia being the newest EU country.

90% of the farmers who benefited from biotech crops were resource poor farmers from developing countries, whose increased income contributed to the alleviation of poverty.

In addition to the 22 countries planting biotech crops, 29 countries have approved the import of biotech crops, bring the total number of countries to 51.

“This unprecedented high adoption rate is testimony to the trust and confidence of millions of small and large farmers in crop biotechnology in both industrial and developing countries.”

Importance & Purpose of Biosafety

Appropriate biosafety regimes facilitate biotechnology – to the benefit of consumers, farmers, society, the economy and industry

Facilitates industry’s investment

Assures consumers of safety

Demonstrates Government leadership & responsibility

Ensures public & private research responsibility

Facilitates regional and international trade

Encourages collaboration for capacity building and technology transfer

Elements of a workable BS system

Based on a step-wise and case by case approach, aided by a structured series of questions

Science based – accurate data collection and assessment based on international peer reviewed criteria

Flexible and capable of adapting to rapid advances in biotechnology

Focused on product characteristics and identified risks & not on process

Encourages innovation

Integrated into overall regulatory system that governs release of new products

Non science issues like ethics, socioeconomic impacts, morality, cultural values are subjective and give wide opportunity to adverse litigation.

Coexistence and labeling, liability provisions need to be pragmatic

Aspects of a Biosafety system

GM Foods are thoroughly evaluated for safety

Criteria used:

Must show no harmful effects at very high levels

Must show no allergenic concerns

Must be as safe as conventional foods (substantial equivalence).

Biotech food safety is based on the principle of substantial equivalence, developed the worlds leading food experts: FAO, WHO, OECD, ILRI, EFSA

Long term safety assurance evaluated by same methods as conventional foods i.e. animal feed studies & predictive tools

3 PHASES OF SAFETY ASSESSMENT

Rigorous biosafety regulations ensure safety.

Biosafety Frameworks

National Biosafety Policy

National Biosafety laws, regulations & guidelines

National Biosafety Committees (NBC) (permanent or ad hoc)

Institutional Biosafety Committee (IBC) - ditto-

International Biosafety Conventions - BSP

International Biosafety Bodies - Biosafety Clearing House

Regional efforts at harmonised regulations – SADC, UEMOA, COMESA, SILS, AU..

*Biosafety policy Options – impact on trade
(Robert Paarlberg)*

Communication - a long term process of building trust and credibility

Building understanding & acceptance amongst key stakeholders

Scientific reports, conventions, workshops, seminars, briefings

Newspaper articles, TV, radio programs, tours (seeing is believing)

Both the message and the messenger are important

Key messages

Tremendous benefits to farmers and the environment. National interest to empower farmers and protect the environment.

Rapid growth around the world (250m acres, 10.3m farmers, >10% annual growth, 1.4 billion cumulative acres, no safety hazard reported)

Highly regulated to ensure safety

Expert endorsements from credible authorities

Years of experience and need for a balanced perspective.

Need for R&D and capacity building to tackle national priorities

Overview of Africa & Biosafety

Current status on Biosafety

POLICY

Nigeria, Kenya, Uganda, Malawi, Zambia, South Africa, Zimbabwe, Ethiopia, Nigeria, Ghana

LEGISLATION

Law - Passed by Parliament

South Africa, Zimbabwe, Egypt, Mauritius

Decree

Burkina Faso

Draft Guidelines

Kenya, Uganda, Tanzania, Zambia, Ghana, Nigeria, Namibia, Cameroon, Malawi, Cote D'Ivoire,

Moratorium

Benin – ends 2007

Most countries are signatories to the Cartagena Protocol on Biosafety (CPB) and have UNEP-GEF biosafety frameworks to be implemented.

Overview biosafety Laws

Overview biotech grain boycott

Monsanto Approach in Africa

General Principles

Goal is to bring as many farmers as possible to a commercial level.

Not only because it's good for us, but also because it is the only sustainable route out of poverty.

We believe a commercial business approach is Monsanto's best means of helping poor farmers.

Our efforts in Africa have a three-tiered approach:

Commercial market expansion (growing our business – for profit)

Cooperative development – (facilitated until profitable – MDG hybrid donations)

Development partnerships – (not for profit – Drought tolerance)

We must work with and through others to achieve our goals.

Monsanto criteria for biotech investment

Commercial biotech business – a careful selection process where several aspects are considered

A business opportunity for cotton or maize biotech products

We have suitable varieties (existing hybrid market)

A route to market (distribution system, industry partners)

Long term profitability, market size

Workable business model – IPR, UPOV, Contract law, market structures

A workable biosafety system- pragmatic regulations, policy, trained assessors
Disincentives – need for lots of new data, length of time for approvals, costs, liability provisions, labeling laws, area restrictions.....
We have an existing office or infrastructure in the country
In country technical capacity and willingness to conduct trials
Political support and regional influence

Monsanto's strategy

Broad licensing strategy is the favoured approach

Maize

Hybrid producers only- prevents segregation of trait

Good quality products with significant market share

Good management practices – stewardship

Smaller companies need assistance to meet these conditions and partners need to be sought to help.

Cotton

Traits supplied in Delta Pineland cotton seed varieties

Traits introgressed into local varieties – Uganda, Burkina Faso, Egypt, (India > 20 companies licensed Bt)

Overview biotech crop planting

Reaching Commercial Smallholders

with Ag technology

Monsanto products currently reach ~25 million smallholders globally.

Monsanto biotechnology products currently reach ~7 million smallholders globally.

Transgenic hectares in South Africa

Cotton trials – Burkina Faso

Cotton trials - EGYPT

Cotton and Maize trials - KENYA

Cotton market - UGANDA

Cotton market - MALAWI

Public-Private Partnerships

Potential Socio-economic Benefits of Biotech

Improved farm incomes and rural economies

Investment, higher productivity, increased incomes

Improved food Security

Higher yielding , adaptable crops, more trade,

Environmental improvement

Reduced pesticides, ploughing, better moisture control

Capacity building and skill development

In policy, planning and practice of biotechnology

Maximizing agriculture – Africa's most imp. Economic activity

Higher yields, profitability, specialization, specific solutions, reduced environmental impact

AFSTA Congress 2007

Livingstone, Zambia

8th March 2007

Peter Francombe

Africa Seed Trade

"Importance of Horticultural Seed Trade in Africa:

Particularities and Appropriate Rules for Development"

Africa by Area

Particularities of Horticultural Seed

What do we mean here?

High number of species and varieties

Diverse agro-ecological requirements

Diverse production techniques
Diverse technical specifications
Horticultural seeds are complex living organisms.
Varieties are constantly being improved to suit different usages in Africa
Africa has very diverse climatic and ecological conditions that require specialist material
The “technical specifications” of seed are a very important factor in the seed trade of Africa
Technical Specs of Seed
Why do we need to have improved seeds?
Food security and Poverty Alleviation – key to the African continent
Some examples of the diverse requirements
Field holding capacity – eg. Cabbages
Disease resistances – increased pressure of diseases. Eg. TYLCV, TSW
Growing conditions – open field vs. covered crops
Colour, shape, taste, texture
Different market requirements
Yields

African Vegetable Export Market

This is a very important element in the Horticultural seed trade in Africa
Africa offers unique and diverse conditions for the growing of vegetables for the European market
Parts of Africa are able to produce and supply 12 months of the year
Supply is by Truck, Ship and Air depending on the country
Key Export Countries
Morocco – French Beans, Tomatoes, Peppers, Cucumber, Sweet Melon
Senegal – French Beans, Dried Tomatoes, Sweet Melon
Burkina Faso – French Beans
Ethiopia – French Beans, Hot Peppers
East Africa – French Beans, Runner Beans, Snopeas, Snapeas, Garden Peas, Chillies, Okra, Baby Corn, Leafy Salads
Egypt – French Beans
Zambia/Zimbabwe – French Beans, Snopeas, Snapeas, Baby Corn
South Africa – Baby Vegetables, Fruits
Appropriate Rules for Development
AFSTA Position
Seed Certification
Harmonisation
Export Products from Africa

AFSTA Position

Considering the technical particularities of Horticultural Seed:
Vegetable seed should be traded under “standard seed” or “truthfully labeled seed” as is the case in Europe, America and Asia
Official certification should be optional
Seed merchants must self enforce ethics and quality standards
Seed Certification
Nominated authority in each country. Their roles:

Seed Certification and Quality Assurance

Quarantine and Phytosanitary requirements
Variety releases

The authorities play an important role in the quality standards of seed given to our farmers.
Standards need to be brought into line with international standards.

“Over Regulation” This hinders business

Harmonisation

SADC, EASCOM, ECOWAS, WAEMU, COMESA – strategic work being carried out

Why do we need harmonisation in the horticultural seed trade in Africa?

Movement of seed across borders

Seed regulations – should be standard

Reduce costs – ultimately to the farmer

Export Products from Africa

Quotas – Morocco

EUREPGAP – seed traceability

Phytosanitary standards – ensure seed meets requirements

Quality – very high standards expected

Delivery – timeliness vital to the growers of export products

Carbon Miles – how will this affect the seed trade in Africa?

The seed industry in Africa MUST be aware of developments in the export sector. This is a key role for the seed trade associations within Africa

COMESA:

GLOBAL APPROACH TO FACING THE CHALLENGES OF SEED TRADE

AFSTA CONGRESS, LIVINGSTONE, MARCH 2007

CRIS MUYUNDA, PhD

COMESA SENIOR AGRIC ADVISOR

OUTLINE OF PRESENTATION

■ **COMESA OVERVIEW: OPPORTUNITIES IT OFFERS AND ITS MAJOR PROGRAMS**

■ **PROGRESS MADE IN ATTAINING A GLOBAL / HARMONIZED APPROACH IN THE SEED SECTOR**

■THE WAY FORWARD AND NEXT STEPS

COMESA: KEY PARAMETERS

- ORIGINALLY FORMED IN 1981 as PTA and TRANSFORMED INTO COMESA IN 1994
- POPULATION: 400 million (GREAT OPPORTUNITY)
- Total GDP: \$270 billion (GREAT OPPORTUNITY)
- MAJOR IMBALANCE BETWEEN INTRA COMESA TRADE AND EXTRA-COMESA TRADE

COMESA AGRICULTURAL SECTOR CHALLENGES

NET RESULT OF STATUS QUO: FAO HUNGER MAP (BIG OPPORTUNITY FOR RELIEF SEED)

COMESA'S MAJOR AREAS OF FOCUS

- FREE TRADE AREA (ATTAINED IN 2000, NOW HAS 13 OUT OF 19 COUNTRIES)
- CUSTOMS UNION (TARGET IS 2008)
- COMMON INVESTMENT AREA (COMMON INVESTOR: NEGOTIATIONS NOW AT JUSTICE MINISTERIAL LEVEL)
- AGRICULTURAL DEVELOPMENT THROUGH CAADP (FOUR PILLARS OF INVESTMENT)

THE CAADP PROGRAM : THE PILLARS / INVESTMENT AREAS

COMESA AGRICULTURAL STRATEGY

DEVELOPING AGRICULTURE: WHAT DOES NORMAN BORLAG SAY?

SUCCESS IN AGRICULTURE IS DEPENDENT ON FOUR CONDITIONALITIES

- SEED
- FERTILIZER
- WATER
- EXTENSION

IN AFRICA AND COMESA, HIGH USE SAVED SEED,
LOW USE OF FERTILIZER, ONLY 5% IRRIGATED,

COLLAPSED EXTENSION SYSTEM.

THUS THERE IS NEED TO TAKE A WHOLISTIC VIEW
SEED SECTOR CHALLENGES
IN COMESA

Cumbersome Varietal Release Procedures:

Long time for testing, evaluation and release (at least three years of testing).

PLANT BREEDER'S RIGHTS

- Absence of an effective Plant Breeders' Rights legislation in many countries and lack of clear mechanism (*Office of varieties i.e. the registrar*) to protect plant breeding investment
- Difficulties in accessing proprietary materials by legal means.

COMPETITIVENESS CHALLENGES

Alleged instability in government policies - restrictions in import and export sector, favoring certain players

MARKET CHALLENGES

- Weak market information systems
- Link between - Seed delivery and output markets: Low grain prices lead to fluctuating seed demand depressing prices
- Poor economies (lack of cash by smallholders) and marketing structure (long distance to input and output markets)
- Government/NGO free seed handouts/subsidies.
- Various Regional Seed Trade Barriers

LOST OPPORTUNITIES

- Region has not benefited from similarity in climatic conditions to encourage free flow of seed trade
- Reduced Investments because of different seed regulations and policies between neighboring countries.
- Most country seed sectors are inward looking with little exports except in the case of perhaps a few sub sectors.

BIOTECHNOLOGY CHALLENGES

Biotechnology has the potential to increase agricultural productivity, increase nutrition and health but acceptability in the region has been Slow (NOTE: COMESA HAS REACHED TECHNICAL POSITION ON BIOTECHNOLOGY AND BIOSAFETY).

WAY FORWARD AND NEXT STEPS

- IMPLEMENT COMESA BIOTECHNOLOGY POSITION REACHED IN MAY 2006.
- CONVENTIONAL SEED: BRING TOGETHER ALL THE CONSTITUENTS OF COMESA - SADC/COMESA STATES, ASARECA/EA, NORTH AFRICA.
- REPORT STATUS TO THE MINISTERS IN MARCH 2007 (SUDAN)
- ENGAGE DEV PARTNERS IN MARCH 2007 (RWANDA)
- UNDER CAADP PILLAR 2, FRAME A PROGRAM AND PLAN WORKABLE SEED SECTOR HARMONIZATION FOR COMESA
- IMPLEMENT PLAN

THANK YOU

**THE MATERIAL TRANSFER AGREEMENT
OF THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR
FOOD AND AGRICULTURE
BERNARD LE BUANEC
LIVINGSTONE, ZAMBIA, 8 MARCH 2007**

Outline

- ❖Background on Access to Plant Genetic Resources
- ❖The FAO International Treaty on PGRFA
- 2.1 The Treaty
- 2.2 The Multilateral System
- ❖The Material Transfer Agreement
- 3.1 Operational Aspects
- 3.2 Monetary Benefit Sharing Provisions
- 3.3 Some Key Definitions
- ❖Conclusion

MTA of the IT-PGRFA

❖ **Background on Access to Plant Genetic Resources**

❖ The FAO International Treaty on PGRFA

2.1 The Treaty

2.2 The Multilateral System

❖ The Material Transfer Agreement

3.1 Operational Aspects

3.2 Monetary Benefit Sharing Provisions

3.3 Some Key Definitions

❖ Conclusion

Background on Access to PGR

❖ Influence of the environmental movement and its efforts to convince the public of the value of biodiversity

❖ Perceived value of biodiversity, particularly to pharmaceutical industry, and emergence of the “life science” industry

❖ North-South politics

MTA of the IT-PGRFA

❖ Background on Access to Plant Genetic Resources

❖ **The FAO International Treaty on PGRFA**

2.1 The Treaty

2.2 The Multilateral System

❖ The Material Transfer Agreement

3.1 Operational Aspects

3.2 Monetary Benefit Sharing Provisions

3.3 Some Key Definitions

❖ Conclusion

FAO International Treaty on PGRFA

❖ The objectives of the International Treaty are the conservation and sustainable use of Plant Genetic Resources for Food and Agriculture and the fair and equitable sharing of benefits from its use

MTA of the IT-PGRFA

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ANNEX I

List of crops covered under MLS

❖ **Breadfruit**

❖ **Asparagus**

❖ **Oat**

❖ **Beet**

❖ **Brassica complex**

❖ **Pigeon Pea**

❖ **Chickpea**

- ❖ Citrus
- ❖ Coconut
- ❖ Major aroids
- ❖ Carrot
- ❖ Yams
- ❖ Finger Millet
- ❖ Strawberry
- ❖ Sunflower
- ❖ Barley
- ❖ Sweet Potato
- ❖ Grass pea
- ❖ Lentil
- ❖ Apple
- ❖ Cassava
- ❖ Banana/Plantain
- ❖ Rice
- ❖ Pearl Millet

ANNEX I

List of crops covered under MLS

LEGUME FORAGES

- ❖ Astragalus
- ❖ Canavalia
- ❖ Coronilla
- ❖ Hedysarum
- ❖ Lathyrus
- ❖ Lespedeza
- ❖ Lotus
- ❖ Lupinus
- ❖ Medicago
- ❖ Melilotus
- ❖ Onobrychis
- ❖ Ornithopus
- ❖ Prosopis
- ❖ Pueraria
- ❖ Trifolium

GRASS FORAGES

- ❖ Andropogon
- ❖ Agropyron
- ❖ Agrostis
- ❖ Alopecurus
- ❖ Arrhenatherum
- ❖ Dactylis
- ❖ Festuca
- ❖ Lolium
- ❖ Phalaris
- ❖ Phleum
- ❖ Poa
- ❖ Tripsacum

MTA of the IT-PGRFA

- ❖Background on Access to Plant Genetic Resources

- ❖The FAO International Treaty on PGRFA

- 2.1 The Treaty

- 2.2 The Multilateral System

- ❖**The Material Transfer Agreement**

- 3.1 Operational Aspects

- 3.2 Monetary Benefit Sharing Provisions

- 3.3 Some Key Definitions

- ❖Conclusion

MTA of the IT-PGRFA

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- 3.1 Operational Aspects**

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Operational Aspects (1)

- ❖The Standard Material Transfer Agreement is signed by the Provider (gene bank) and the Recipient (any legal person) and not by the parties to the Treaty. The signature / acceptance may be done either formally or by shrink-wrap or click-wrap agreement

- ❖Access to germplasm is only for the purpose of research and breeding for food and agriculture purposes. All other uses are excluded

Operational Aspects (2)

- ❖PGRFA “under development” are excluded from the mandatory facilitated access. Access to PGRFA “under development” is at the discretion of the developer during the period of development

- ❖There are no restrictions on the Recipient to apply for intellectual property protection rights on the Product developed

Operational Aspects (3)

- ❖Tracking of exchanges is not required, except for reporting of transfers to others by the Recipient of PGRFA to the Governing Body

- ❖The Recipient must keep records of the gross sales of Products

- ❖There is no apparent exhaustion of obligations on the part of the Recipient

- ❖Dispute settlement is by mediation or binding arbitration

MTA of the IT-PGRFA

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Monetary Benefit Sharing Provisions

❖ Monetary benefit sharing is compulsory when the Product commercialised by the Recipient is not available without restriction to others

In that case a payment of 1.1% of the gross sales of the Product less 30% will apply

A discounted rate of 0.5% may apply if the Recipient agrees to include in its sales not only the Product developed from the material accessed from the MLS but also all its products belonging to the same crop without taking into account the IP status

MTA of the IT-PGRFA

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“Product“ (1)

❖ *Product* means PGRFA that incorporates material accessed from the MLS or any of its genetic parts or components that are ready for commercialisation, excluding commodities and other products used for food, feed and processing

“Product“ (2)

❖ There is no qualification on the level of incorporation of the material received from the MLS and therefore, any level of incorporation will trigger the benefit-sharing obligation

❖ However, a footnote to the word “incorporate” in the definition adds: “As evidenced, for example, by pedigree or notation of gene insertion”

❖ This would indicate that scientifically reliable evidence of incorporation has to be provided for enforcement of the benefit-sharing clauses

“Available without restriction” (1)

❖ A Product is considered to be available without restriction to others for further research and breeding without any legal or contractual obligations, or technological restrictions, that would preclude using it in the manner specified in the Treaty

“Available without restriction” (2)

❖ This definition is of key importance as it determines when mandatory payment must be made. Examples of non-restrictive conditions are public releases and IP rights allowing further research and breeding, such as UPOV PBR and free research licenses

“To Commercialise”

❖ *To commercialise* means to sell a Product or Products for monetary consideration on the open market

❖ Commercialisation shall not include any form of transfer of PGRFA under development

❖ With this definition, the objective is to capture the highest value for the material accessed

❖ However, the income of the Recipient from licensing a Product is free of any obligation to make a mandatory payment

“Plant Genetic Resources for Food and Agriculture under Development”

❖ Material derived from the material accessed from the Multilateral System that is not yet ready for commercialisation on the open market and which the developer intends to further develop or to transfer to another person for further development

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❖**Conclusion**

Conclusion (1)

❖Despite some ambiguities that need to be clarified, the MTA is a sound basis for accessing PGRFA in the Multilateral System and for sharing benefits

❖ISF strongly supports the MLS and the SMTA but is of the view that implementation of the IT depends on the degree to which the SMTA is acceptable in practice for seed companies to utilise material

Conclusion (2)

❖ISF continues to call for the expansion of the list of crops under the MLS and asks that conditions for access and benefit sharing for germplasm of species not covered by the MLS and that fall under the purview of the CBD be governed by an MTA equivalent to the one of the Treaty.

Thank you for your attention

HARMONIZATION AND RATIONALIZATION OF SEED POLICIES AND REGULATIONS IN EAST AFRICA:

Achievements and lessons

By

Obongo Nyachae

Secretary,

Eastern Africa Seed Committee

Paper presented during AFSTA Congress, Livingstone, Zambia,

6 – 9 March, 2007

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OUTLINE

- Africa's share of seed business

- Overview of harmonization in EAC
- Achievements
- Seed Laws/policies/regulations
- Seed Trade Development
- Challenges
- Way forward

1.1 AFRICA'S SHARE OF GLOBAL SEED TRADE

- ISF seed statistics:
- Global seed market is estimated at US\$ 30 Billion
- Africa commands only 3% of this, (US\$ 800 Million),
- Concentrated in ECA, South Africa, Egypt, Nigeria, and Senegal
- Seed trade is dominated by USA (25%) and Europe (17.4) = 42.4% of market

1.2 OVERVIEW OF HARMONIZATION

- ASARECA undertook a study in the 1990's and identified five key areas restricting movement of seed across Eastern Africa region
- Small markets were also identified as a constraint to investment in seed business
- Process started in September 1999 as Pilot Phase Project covering Kenya, Uganda and Tanzania.
- Later, 2nd and 3rd Tier countries joined.

1.2 Overview of harmonization cont..

The five areas addressed were:

- Variety evaluation, release and registration
- Seed certification
- Phytosanitary measures
- **Import/Export documentation**

- **Plant Variety Protection**

2.0 KEY ACHIEVEMENTS

2.1: VARIETY EVALUATION/RELEASE

- Breeder undertakes evaluation to point of showing potential for release
- National Certification Agency (NCA) validates the data in National Variety Performance Trial for two seasons (down from three years before harmonization), but breeder's data should be available
- Regional Variety List was developed for Kenya, Uganda and Tanzania

2.0 Key achievements cont..

2.2: SEED CERTIFICATION

2.2.1 Developed regional seed certification standards for ten crops selected as of major economic importance in EA.

(See List of these crops)

2.2 seed cert cont..

•2.2.1 cont.. (List of crops)

- Maize (*Zea mays*)
- Sorghum (*Sorghum bicolor*)
- Beans (*Phaseolus vulgaris*)
- Groundnuts (*Arachis hypogaea* L.),
- Soybeans, (*Glycine max*),

2.2 cont.. (list of crops)

- Wheat (*Triticum aestivum* L.),
- Potato (*Solanum tuberosum*),
- Rice (*Oryza sativa*),
- Sunflower (*Helianthus annus*)
- and Cassava (*Manihot esculenta* Crantz).

2.2: Seed Certification cont.

•2.2.2 Joint seed certification

- Seed inspectors from KE; UG; TZ & RW undertook joint seed inspection of selected crops in KE, UG and TZ in 2005/06

- Commonalities and differences were identified

- Plan of action to address the issues has been prepared in 2007

2.0 Key achievements cont..

2. 2.3 Second and Third Tier Countries

- These have agreed on the common certification standards, largely based on OECD Field Schemes and on ISTA testing procedures

- These members are at various stages of development in the harmonization process

2.0 Key achievements cont..

2.3 PHYTOSANITARY ISSUES

- Developed a Quarantine Pest List for the 10 selected crops in Kenya, Uganda, Tanzania and Rwanda

- Q-List is with Permanent Secretaries of Ministries of Agriculture of these countries for validation and adoption

2.3 Q-List..

2.3 Q-List cont..

2.0 Key achievements cont..

2.4 LEGAL AND REGULATORY FRAMEWORKS

- Suitable *sui generis* systems of PVP have been put in place in various EASCOM countries, while others are in various stages of development

- Seed laws/policies have been put in place while Bills are at various stages of development

2.4 Legal/Regulatory framework cont..

2.4.1 PLANT VARIETY PROTECTION

- EASCOM consigned two experts (Dr Francis Wachira (KE) and Mr Patrick Ngwediagi (TZ) who undertook a study of PVP systems in KE; UG; TZ & RW

- A report of the status was produced and is under publication by EASCOM

2.4.1.1 PVP in Tanzania

- TZ has PBR's Act of 2002, which complies with UPOV 1991 Convention

- The Act became operational in 2004

- PBR's Office was set up in Jan 2005

- 17 applications received by Feb 2007

- 2 Grants have been given and 3 are awaiting gazettelement

- PBR's Regulations are with AG of TZ for vetting

2.4.1.2 PVP in Kenya

- Kenya has PVP legislation based on UPOV 1978 Convention (Seeds & Plant Varieties Act Cap 326 of 1972, Rev 1994

- Total of 840 applications rec'd 06

- Total Grants given '06 = 239

- A PVP Bill 2007 compliant with UPOV 1991 Convention is under development

2.4.1.3 PVP in Uganda

- Uganda has PVP Bill which includes farmers' rights

- The Bill has been with UG's Parliamentary Committee on Agriculture since 2002

- Has Plant Breeders Association

2.4.1.4 PVP in 2nd and 3rd Tiers

Rwanda

- Rwanda has developed Draft Plant Protection Bill based on UPOV

- Has put in place institutional frameworks to support private sector initiatives including seed eg

- Rwanda Agric Development Agency (RADA)

- Seed Trade Association of Rwanda (STAR)

- Work in progress to operationalize agreements

2.4.1.5 PVP in 2nd and 3rd Tiers

Ethiopia

- Has Draft PVP Bill based on AU Model Law, which has been lying unprocessed for some time

- Seed business is publicly run

- Private sector flower dealers are putting pressure on Gov to put PVP in place

2.4.2 Seed Laws/regulations

2.4.2.1 Kenya

- Kenya has Seeds and Plant Varieties Act of 1972 (Rev. 1994)

- Has Seeds Regulations of 1977 (Rev. '94)

- A Draft Bill 2007 has been developed containing several agreements of harmonization, including harmonized seed certification standards for various crops, based on OECD/ISTA

2.4.2 Seed Laws/regulations

2.4.2.2 Tanzania

- Tanzania has a Seed law of 2003
- The Law is fully compliant with agreements of harmonization
- There is legal provision to make National Variety Performance Testing independently undertaken by TOSCI, the national regulating agency (*as is the case in Kenya*)

2.4.2 Seed Laws/Regulations

2.4.2.3 Uganda

- Uganda has draft seed policy awaiting stake-holder approval
- It has Seeds & Plant statute 1993, which is under review to accommodate harmonization
- NSCS is member of OECD and is seeking ISTA accreditation

2.4.2 Seed Laws/Regulations

2.4.2.4: 2nd & 3rd Tiers

• Sudan:

- Seed law has been approved by Council of Ministers
- Q-Pest List has been revised: 7 insects and 17 diseases
- Variety release committees are operational, with 8 releases (1 from private seed company)
- Seed volumes: 11,400 1st season of 2006

2.4.2 Seed laws & Regulations

2.4.2.4 2nd 3rd Tiers

• Madagascar

- Has seed law 1994
- Signature of application decree signed in September, 2006
- Law provides for National Seed Committee; NVRC; NCA
- Registration now required to undertake seed trade
- Has AMPROSEM since 1999

2.4.3 SEED TRADE DEVELOPMENT:

2.4.3.1 Tanzania

No. of seed companies increased
from 11 in 2002 to 28 in 2006

- Seed imports for maize/sorghum to TZ increased from about 500 mt in 2002 to about 2500 mt in 2006 for five seed companies
- (Total Seed imports to TZ from COMESA members increased to 10,000 mt in 2006)

2.4.3 Seed Trade Development

2.4.3.1 Tanzania cont..

- TZ is working to become ISTA accredited in 2007 to facilitate seed exports.

- TASTA established 2001 as voice of industry

2.4.3 Seed trade development 2.4.3.2 KENYA

- Seed volumes have varied from around 25 – 35,000 mt annually valued at US\$ 40 Million; mean is around 28,000 mt/year

- No. of registered seed companies has increased from 41 in 2002 to 58 in 2006

- Seed Association (STAK) since 1982 as voice of industry

2.4.3 Seed Trade development

2.4.3.2 Kenya cont..

- No. of private seed companies releasing new varieties has increased:

- 3 in 2001;

- 7 in 2003

- 13 in 2006

2.4.3 Seed trade development

2.4.3.2 Kenya cont..

- Area under certified seed production: 12,000 – 17,000 ha/year

- Area of certified crop rejected has declined due to farmer training :

— 4.0% in 2001/02;

— 2.5% in 2004/05;

— 2.8% in 2005/06

2.4.3 Seed Trade Development

2.4.3.3 Uganda

- Uganda Seed Trade Association (USTA) born in 1999 is the voice of industry

- USTA had 11 seed companies + 5 Associates in 2006

- Successfully hosted AFSTA Congress 2006 in Entebbe UG.

2.4.3 Seed Trade Development

2.4.3.3 Uganda cont..

- Local seed sales are 3,000 mt valued US\$1.6 M

- Exports are 700 mt value US\$ 0.6 M

- Imports are 800 mt value US\$ 0.8 M

- Total value of seed sales:

about US\$ 3.0 M

3.0 KEY CHALLENGES

- Implementation of agreements has been slow

- Seed associations in the region have been generally weak

- Low capacity

- Low adoption of technology

4.0 WAY FORWARD

- COMESA: Participate in implementation process at the REC's (Regional Economic Communities) level
- Trade facilitation: COMESA should speed up development of harmonized document for export/import of plants/planting material

4.0 Way forward cont..

- Assist members to develop and operationalize PVP systems through OAPI/ARIPO

- Build capacity for handling emerging technologies eg GMO's as a bloc and for international negotiations.

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- ASARECA/ECAPAPA – Isaac Minde
- SRWG/EASCOM Members
- USAID/REDSO for facilitation
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- THANK YOU

DEVELOPMENT OF PRIVATE SEED COMPANIES IN AFRICA – SEEDS

RICHARD JONES AND JOE CORTES

SCOSA

Outline

- Constraints to seed system development
- Genetic requirements
- Small versus large companies
- Seed enterprise enhancement and development services (SEEDS)
- Foundation seed enterprises (FSEs)
- Sustainability issues
- Conclusions

Constraints to commercial seed system development

- Failure of a commercial-scale farming industry to evolve
 - Low purchasing power of farmers
 - Reputable local seed distributors and dealers are needed to effectively address these challenges and provide local knowledge, distribution in the region
 - Smallholders vulnerable to production risks
 - Climatic variability, plagues and environmental degradation
 - Tariff and non-tariff trade barriers
 - Government and donor seed schemes
 - Inconsistent enforcement of regulations
 - Inadequate protection of intellectual property
- Challenges for seed and input suppliers
- Creating a consistent and reliable *income* for farmers, not just *food security*
 - Need to examine the optimal cost-benefit of inputs, including seed
 - Cash-flow, input cost per ton of grain, and return per hectare
 - Solving farmer cash-flow issues
 - Needs to be addressed by the private sector
 - Relief interventions will continue to be required to save lives and protect livelihoods
 - How to ensure that relief interventions avoid undermining the development of the formalized seed and input supply system?
- Genetic requirements
- Broadly adapted single varieties or technologies are the exception
 - Conditions are less uniform in Africa
 - Very limited irrigation
 - Highly weathered soils
 - Limited use of fertilizers and other inputs
 - High climatic variability
 - Dominance of local use in Africa increases the list of required characteristics
- Existing seed sources
- Farmers rely mainly on informal seed sources
 - Own-saved seed
 - Seed sourced through informal networks

What is our understanding of a seed company?

- An individual or group of individuals that are willing to produce and market high quality seed under their own responsibility
- Large versus small companies?
- Large seed companies
- Maintain their own breeding programs
 - Increased research overheads
 - Tend to focus on hybrids
 - Adapted modern hybrids outperform local varieties
 - Biological protection of intellectual property
 - Tend to have a lower seed production cost than small seed companies
 - Produce in areas that are optimal for production
 - Using internally produced foundation seed
 - Well developed grower systems

–Risk management, and efficiencies of scale to production

Small seed companies

- Rely more on publicly developed varieties

–Lower research overheads

- By operating at local level can reduce some transport and delivery costs

- Should be able to

–Have a better knowledge of the market

- Easier to determine local performance/farmer preferences

–Facilitate local distribution in their areas of influence

- The sale of quality seed by these companies will be able to draw in more customers at the margins who would not benefit from improved seed without them

- Often carry a disproportionate amount of risk, and can fail due to government intervention in “free seed programs” where they either have a huge market or none at all

- Identify, develop and exploit market niches that larger companies cannot reach/are not compatible with their business model

Factors affecting all seed companies

- Ineffective transport infrastructure

- High shipping and financial risks

- High cost of capital

- Inconsistent regulatory burden, corruption

- Lack of reputable distributors and dealers

- Ineffectual extension services

- Lack of organized farmer groups, etc

Requirements of commercial seed systems

- Need large, medium- and small-sized seed companies

–To reach more farmers

–To support the intensification of agriculture in ways that are:

- Biologically sustainable

- Financially viable

- Consistent with market needs and opportunities

- Through the delivery of high-quality seed

- Of a range of crops and improved varieties

- Appropriate both to the consumption and income generation needs of the rural population, and

- To the market demands of agro-processors

–Local food, feed, fiber, and fuels

–Export markets

Pre-requisites for commercial seed system development

- Policy makers and other seed participants need to accept the development of independent seed delivery through commercial entities

- Create incentives for innovation

- What policies are needed to promote the further development of seed companies?

Potential solutions

- Improved policies and regulations

- Products from public investments in crop improvement need to be:

–More widely promoted

- Made more accessible
- Stimulate seed entrepreneurship
- Reduce the transactions cost of seed
- Reduce risks through crop diversification
- Vehicle for success: “SEEDS”...1/2
- Seed Enterprise Enhancement and Development Services
- What do we want to accomplish?
- Promote quality seed delivery to all farmers
- How we propose to accomplish this?
- Catalyze seed entrepreneurship
- Support existing seed companies
- Develop new seed companies
- Foundation seed
- Storage and processing facilities
- Business development services
- Credit
- Capacity building
- “SEEDS”...2/2
- Support the development of agro-dealers
- Create an enabling environment through seed trade associations
- Collective action in negotiation
- Coordination of activities according to seed business ethics
- Improvement of seed laws and regulations
- Seed trade harmonization
- Foundation Seed Enterprises
- Core unit within “SEEDS”
- Facilitates transition between public plant breeding and private seed production
- Separate from public breeding program
- Own staff and budgetary independence
- IP management of public varieties
- Provides services to seed entrepreneurs
- How to achieve sustainability?
- Establish and train country teams in business
- National seed trade association
- Public seed regulatory agency
- National agricultural research system
- Consult with policy makers and seed industry participants
- Develop bankable business plans
- Obtain capital grants, venture capital and financing
- Conclusions
- Seed delivery is the domain of commercial companies not public sector
- Collaboration between public and private sectors
- Enabling regulatory environment
- Availability of support services - “SEEDS”

- Relief interventions/subsidies through market channels

ROBERT GUEI - FAO

❖ Le processus d'harmonisation a été initiée par la FAO (financement de la France) et ses partenaires (IFDC, ASN, WASNET, WARDA, IITA, SCOSA, GNIS, AFSTA), dans la zone UEMOA en 2004, puis étendue à la CEDEAO en 2005 et au CILSS en 2007.

❖ Réunion d'Accra du 26 février 2007 AU 2 mars 2007: un cadre réglementaire semencier harmonisé a été approuvé par 17 pays

❖ Un cadre institutionnel en charge des questions liées aux semences dans la sous-région : le Comité Ouest Africain des Semences (COASem)

❖ Règlement portant harmonisation des règles régissant le contrôle de la qualité, la certification et la commercialisation des semences végétales et plants

❖ Règlement d'exécution pour fixer les normes des différentes espèces.

❖ Règlement d'exécution portant organisation du Catalogue Ouest Africain des espèces et variétés végétales (COAfEV)

❖ Règlement d'exécution portant modèles de document administratif

Le cadre institutionnel

❖ Comité Ouest Africain de semence COASem :

—Composé des pays, les 3 Org., des privés et des Org. Inter.

—Un Secrétariat permanent hébergé par la CEDEAO

Attributions du COAsem

❖ veiller au respect et à l'application des règles et normes du cadre réglementaire

❖ émettre des avis et conseils

❖ définir les directives techniques pour la préparation des dossiers d'homologation ;

Attributions du COASEM

❖ sensibiliser les Etats sur les préoccupations des acteurs;

❖ veiller à la collaboration et aux échanges d'informations entre les services semenciers;

❖ encourager la coopération entre les institutions nationales ou internationales, publiques ou privées du secteur semencier.

Le règlement d'exécution portant organisation du Catalogue régional

❖ Le Catalogue Ouest Africain des Espèces et Variétés végétales porte sur la liste des variétés pouvant être produites et commercialisées

❖ Il est constitué par la somme des catalogues nationaux

Le règlement d'exécution portant organisation du Catalogue régional

❖ Pour être inscrites les variétés doivent être homologuées dans un pays membre;

❖ L'inscription d'une variété est valable pour une période de dix ans, renouvelable par période de cinq ans

Le 1ère version du Catalogue

❖ Comprend 11 espèces: Mil, Sorgho, Maïs, Riz, Arachide, Niébé, Manioc, Igname, Oignon, Tomate, Pomme de Terre.

❖ Constituée des variétés **inscrites ou largement diffusées** dans les 17 pays

Catalogue: exemple du Riz

Conclusions et perspectives

❖ Adoption des règlements par les institutions en 2007

❖ Signature de la convention sur l'arrangement institutionnel entre la CEDEAO, l'UEMOA et le CILSS

❖ Mise en place dans l'immédiat des comités nationaux de semences

❖ Mise en place du COAsem et formation des membres sur les dispositions réglementaires

❖ Secrétariat Permanent à la CEDEAO Mise en place d'un

❖ Renforcement des capacités des pays

Conclusions et perspectives

❖ L'harmonisation du cadre réglementaire semencier est une grande opportunité pour le développement d'un marché semencier transfrontalier en Afrique de l'Ouest

❖ Le secteur privé est le premier bénéficiaire et devra s'impliquer davantage dans sa mise en oeuvre

❖ La mise à l'épreuve concrète de ce nouveau cadre réglementaire par le secteur privé sera le meilleur garant de sa mise en oeuvre

PROGRESS IN THE HARMONIZATION OF SEED REGULATIONS IN THE SADC REGION

E.D. ZULU

SADC SEED SECURITY NETWORK

AFSTA CONGRESS, LIVINGSTONE - ZAMBIA.

INTRODUCTION

■ **Agriculture is the most important sector in the support of economic development and livelihoods of the majority in SADC.**

■ **Contributes significantly to Gross Domestic Product (GDP).**

■ **Employment creation.**

- major source of livelihoods.

INTRODUCTION

- Sad that agricultural production continues to fail to keep pace with a rapid population growth in SADC.

- Per capita food and cereal out put declining.

- Food security and livelihood status in Africa are deteriorating rather than improving
- presents an enormous challenge: Food security and poverty alleviation goals cannot be attained or sustained

INTRODUCTION

IMPORTANCE OF SEED IN AGRICULTURAL DEVELOPMENT:

- Preferred tool for Securing food security, poverty alleviation and rehabilitating rural communities afflicted by disasters,

- Seed is an essential ingredient to crop production and there can never be agricultural production without seed

- Seed is the farmer's most precious resource.

Introduction

Despite importance of seed:

- Most farmers seed insecure not contribute to food security,

- A number of factors contribute to this and include:

- Weak seed systems – efforts in few crops,

- Lack of access to financing – credit facility,

Introduction

- Lack of access to commodity markets,

- floods, drought and civil disturbances and

- Lack of an enabling environment - Policy and legal.

Introduction

SEED REGULATORY FRAME IMPACT ON:

- Movement of seed a problem,
- Sourcing of seed by countries with deficits from those with surpluses is hampered,
- Farmers are denied choices of the best varieties available in the region,
- Retards investment, Fragments seed markets, limits seed retail outlets,
- Farmers remain seed insecure resulting in food insecurity.

Specific regulatory areas affecting seed industry development

- Variety Release Systems,

- Seed Certification and Quality Assurance Systems,

- Quarantine and Phytosanitary Measures for Seed and

- Plant Breeders Rights System and

- Administrative bottlenecks

Efforts to Address the Problem

- SADC Secretariat in conjunction with SADC Member States has developed technical proposals to harmonize seed regulations in SADC:

- In line with SADC Treaty and Declaration on Regional Integration,

- In line Dar-es-salaam Declaration on Agriculture and Food Security in the SADC region,

- SADC Regional Indicative Strategic Development Plan (RISDP) and its Business Plan.
Technical Proposals

- SADC Variety Release System,

- SADC Seed Certification System,

- SADC Quarantine and Phytosanitary Measures for Seed,

- Draft SADC Plant Breeders Rights System (Still under discussion) and

- Process Management based Implementation Manuals.

SADC Common Variety Release System

□ IMPORTANT FEATURES:

- Establishment and maintenance of the SADC Common Variety Catalogue;
- SADC Variety Database;
- Varieties listed in two countries is accepted in all SADC Member States,

The SADC Seed Certification and Quality Assurance System

- The System will have the following seed certification classes
 - Breeder Seed,
 - Pre-basic seed,
 - Basic Seed,
 - Certified Seed (1st. Generation), Certified Seed (2nd. Generation) and
 - Quality Declared Seed.
- Seed Classes

The SADC Quarantine and Phytosanitary Measures for Seed

- The purpose of the SADC harmonized Phytosanitary Measures for seed:
 - to reduce costs related to seed trade,
 - encourage faster and safer movement of seed.
- This will be reached through
 - Establishment of transparent and science-based, common Standards and Procedures,
 - Introduction of rationalized SADC pest lists for the movement of seed between Member States,
 - Pest list to guard against pests beyond the SADC region.

The SADC Quarantine and Phytosanitary Measures for Seed

- Checks only for diseases which are not common.
 - Are seed borne.
 - Re-testing of seed consignments on arrival minimized.
- SADC Quarantine and Phytosanitary Measures for Seed: Harmonized list of pests that require control when seed of important crops is traded between SADC countries.
- SADC Quarantine and Phytosanitary Measures for Seed: Harmonized list of pests that require control when seed of important crops is moved to SADC from a country outside the SADC Region.

First Permanent Secretaries Meeting Maputo, 2005

- Documents presented to Permanent Secretaries who:-
 - indicated Support,
 - Commitment,
- Requested further work to be done.

Addressing issues from Permanent Secretaries

- Proposals strengthened to take into account issues raised at Maputo Meeting.

Addressing issues from Permanent Secretaries

PERMANENT SECRETARIES OF AGRICULTURE AND TRADE OFFICIALS MEETING – BENONI, RSA, 2006

Approved:

- **SADC Variety testing and release system,**
- **SADC Seed certification and quality assurance system and**
- **Phytosanitary for seed system**
- **Recommended further work on PBR**

CAPACITY BUILDING

- **Inventory of seed testing facilities has been conducted,**
- **Purpose to mobilize support to Member States to upgrade,**
- **Training to facilitate implementation is on going,**
- **Seed experts have been trained and formulated accreditation manuals.**

IMPLEMENTATION

- **During 2007-2010, the performance of the Systems will be demonstrated and practised,**
- **Seed companies will be encouraged to make use of the Systems,**
- **Adjustments in rules and standards will be made as appropriate including ratification,**
- **Possibility of fees will be explored.**
- **Opportunities for future self-financing of the Systems will be studied and devised.**

SADC

SEED

CENTRE???:

- **During 2011-2012, when the Harmonization Systems have been tested and used by the seed industry, a SADC Seed Centre will be established.**
- **A fee scheme will be introduced with supplementary funding sourced from one or more donors.**
- **The design of the new Centre will be based on experiences gained so far and include appropriate representation of those stakeholders who use and fund the Systems.**

Potential challenges

- **A lengthy process and patience can easily run out.**
 - **Technical level,**
 - **Policy,**
 - **Legal,**
 - **Political,**
- **Resistance in some quarters to begin informal implementation (PS have said so!),**
- **Fears some seed companies will take advantage of system to offload bad seed,**
- **How will implementation be coordinated and managed??**

FUTURE PROGRAM OF ACTIVITIES

- **Complete the formulation of Memorandum of Understanding,**
- **Include in the agenda of Committee of Ministers of Agriculture, ICM and Council,**
- **Finalize web based SADC Variety Catalogue,**
- **Address implementation issues,**
- **Plant Breeders Rights consultations,**
- **Address institutional arrangement for managing and coordinating implementation.**

Conclusions

- **Joint meetings between Regional Economic Groupings,**
- **Seed industry must begin to see how they will coordinate and manage these processes,**
- **Seed certification agencies can help the system by beginning to implement some of the agreements,**
- **Seed companies will need to begin to use the system,**
- **Seed companies will need to help the system by self enforcing of ethics and quality standards,**
- **Donors should continue supporting the process**

Acknowledgement

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Thank

You