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Workshop on International (OECD) Seed Certification

Hyderabad, Telangana State, India
November 24-29, 2017

PROCEEDINGS



Organised by

Telangana State Seed & Organic Certification Authority

Department of Agriculture & Co-operation, Government of Telangana

in collaboration with

Department of Agriculture, Co-operation & Farmers Welfare

Ministry of Agriculture & Farmers Welfare, Government of India

&

Indo-German Project on Seed Sector Development

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Proceedings of workshop on International (OECD) Seed Certification

Quality seed is the most important input for productive agriculture. The role of the seed sector has been substantial in the significant advances that India has made in agriculture in the last four decades. The expansion of seed industry has occurred in parallel with growth in agricultural productivity. The organized seed industry of the country is just four decades old. India is one of the few countries with the advanced seed industry, diverse agro-climatic zones, skilled human resources and favourable entrepreneurial opportunities for seed production of wide range of crops especially vegetables, field crops and flower seeds. Therefore, India can become a major supplier of the seeds for international market. In order to enhance the seed exports from the country, Government of India opted the OECD Seed Schemes.

India's participation in OECD Seed Schemes was initiated in the year 2008 with the approval of India's participation in the Annual Meeting of the OECD held in Chicago in 2008. Accordingly, India entitled to attend the annual meeting of OECD to participate in the multilateral forum for discussion and expressing country's position on Varietal Certifications. India's participation has been accepted by the OECD Council initially for five seed schemes, but now India's participation extended to six seed schemes as Sorghum and Maize seed schemes was separated into two distinct schemes.

We are delighted to inform that the workshop on International (OECD) Seed Certification was successfully organized by Telangana State Seed & Organic Certification Authority, Hyderabad in collaboration with Department of Agriculture, Cooperation & Farmers Welfare, Govt. of India, New Delhi and Indo-German Project on Seed Sector Development, BMEL, Germany by involving foreign experts at Hyderabad from 24th to 29th November, 2017. The aim of the workshop was to impart capacity building on general procedures of OECD Seed Schemes, field inspections, control plot tests and seed sampling and also to create awareness on International (OECD) Seed Certification.

The workshop was conducted successfully and comprised of inaugural session, various technical sessions/lectures followed by one day practical on seed sampling. In the workshop 56 participants from the State Seed Certification Agencies, State and National Seed Corporations, SAUs/ICAR Institutes and private seed industry from different States across the country have participated. The Workshop provided a platform to discuss the issues related to International (OECD) Seed Certification and to develop coordination among the all the stakeholders to promote seed export.

INAUGURAL SESSION

Day 1: November 24, 2017

The workshop was inaugurated by Shri C. Partha Sarathi, IAS, APC & Principal. Secretary to Government. (A&C), Government. of Telangana in the presence of Dr. M. Jagan Mohan, IAS, Commissioner and Director of Agriculture, Govt. of Telangana, Dr. K. Keshavulu, Director, TSSOCA, Hyderabad, Mr. Ekhard Schroeder, Team Leader, Indo-German Project on Seed Sector Development, Shri M. Prabhakar Rao, President, NSAI. Mr. Eddie Goldschagg, OECD Seed Expert from South Africa and Mr. Gerry Hall, OECD Seed Expert from UK.



The workshop started with the invocation song followed by the lighting of the lamp by the chief guests and all other dignitaries

Dr. K. Keshavulu, Director, TSSOCA and convener of the workshop, welcomed the chief guest, guest of honour, all the dignitaries and participants from the different States across the country. In his welcome address he briefed the progress of implementation of OECD seed schemes in Telangana State that during 2016-17 an area of 2251 acres was registered and a quantity of 17000 quintals of seed was produced under OECD seed schemes. He also mentioned that earlier to this workshop two sensitising workshops on OECD seed schemes were conducted in Hyderabad to create awareness among the seed industry and this workshop is the follow up of the earlier workshops to fill up the technological gaps with regard to OECD Seed Certification. He also highlighted that the present workshop will concentrate more on the theoretical part with little practical exposure on seed sampling and the next workshop will be on practical aspects that will be held in the month of April, 2018. While concluding he has briefed the details of the five days workshop stating that it comprises of 20 lectures, 5 experts, 56 participants from both public and private sectors from 17 States and one participants from Germany.



Mr. Ekkehard Schroeder, Team Leader, Indo-German Project on Seed Sector Development, BMEL, Germany in his remarks has briefed about the implementation of Indo-German Project on Seed Sector Development in India. He stated that first phase of the project and base line study is completed and identified the key area for development of seed sector in India. Finally he thanked the Govt. of India and Govt. of Telangana for incredible support in the implementation of the Project and also mentioned he expecting the same support in the rest of the phases of project as well.



Mr. Eddie Goldschagg, OECD Seed Expert from South Africa in his introductory remarks has expressed gratitude to the Govt. of India and Govt. of Telangana on behalf of OECD seed schemes bureau. He recollected the contents of earlier workshops held in Hyderabad and stated that present workshop will focus on rules, regulations and procedures of OECD seed schemes and also queries and general discussions on the associated issues. He mentioned that this workshop is a part of OECD capacity building programmes and certificates of

completion will be given to all the participants. He appreciated the TSSOCA, Hyderabad for taking initiation by registering an area of 2251 acres in the last year under the OECD seed schemes and said that this workshop would accelerate the move. At the end he detailed the workshop programme and assured the participants that the workshop will be fruitful.

Shri M. Prabhakar Rao, President, NSAI, New Delhi delighted that the TSSOCA has taken lead in developing OECD seed system in the State and further expansion to other States and helping in improving seed certification standards and processes in the country. He opined that OECD seed certification helps in seed exports from India apart from improving domestic seed certification system and quality seed production in the country. He mentioned that OECD seed certification system benefits the seed industry both public and private sectors and also seed farmers by helping to reach global seed market. He also mentioned about the European seed system, their seed standards and regulations and informed that there is a



huge demand for Indian seed in third world countries where an effective seed system is absent. The seed demand in overseas can be exploited with the help of OECD seed certification system. At the end he thanked Government of India and Telangana for organising this workshop.

Dr. M. Jagan Mohan, IAS, Commissioner & Director of Agriculture, Govt. of Telangana thanked the TSSOCA for conducting series of capacity building activities at right time and right place. He also thanked the Mr. Ekkehard Schroeder for implementing the Indo-German project in the State. He mentioned the purpose of workshop is to build up the capacity and to transfer the technologies to farmers field. He also underlined the climatic advantages of the Telangana State in quality seed production and referred the State as Seed bowl of the country. In his remarks he opined that the workshop will help to enhance the investment in R & D and thereby promotes the seed export. He concluded his remarks by projecting the Telangana State agricultural scenario and wished the workshop a great success.



Shri C. Partha Sarath, IAS, APC & Prl. Secretary to Govt. (A&C), Govt. of Telangana, in his introductory remarks once again welcomed all the delegates and thanked the government of India for giving this opportunity to organize the workshop for the third time in the Hyderabad. He mentioned that India's participation in OECD seed certification started in the year 2008 but not much progress has been made basically because of lack of awareness. He stated that the Government of Telangana in consultation with Government of India conducted two workshops to know the status of OECD seed certification in the country and also discuss deliberately on implementation of OECD seed certification. He stated that Government Telangana taken steps

forward to make progress in this direction and started registering area under OECD certification from kharif 2016. He also mentioned the progress on OECD seed certification in Telangana State that an area of 2271 acres was registered and a quantity of 17000 quintals was certified and exported to different countries like Egypt, Sudan and Philippines. He also stated that Government of Telanagana is striving hard to fulfil the vision of honourable Chief Minister to make Telangana State as Global Seed Hub. He applauded the efforts made by TSSOCA in implementing OECD seed scheme in the allotted jurisdiction. He also said that in order to have an intensive module for capacity building on OECD seed certification this workshop was planned by involving foreign experts from UK and South Africa. He emphasised on Indo-German project on seed sector development and stressed on benefits of OECD seed certification that, OECD seed schemes will help in increasing area under seed production thereby benefits the farmer and helps to improve

their skills, improves competency level in the seed industry. He opined that the system also improves domestic seed certification and enhances share of Indian seed industry in the international seed trade. He called upon the public sector seed organisations to take opportunity to produce and export the seeds under OECD seed scheme. He indicated that there is a tremendous potential to export seeds to neighbouring countries like Bangladesh, Sri Lanka, Nepal etc. he also mentioned about national task force committee and presented important decisions of the committee as follows;

- 1) Enhancing share of Indian seed industry in international seed trade from 1 % to 10% by 2020
- 2) Testing of Indian varieties / hybrids in other participating countries
- 3) EU equivalence for Indian seed standards
- 4) Setting up of seed export promotion council to have a single window clear system for seed export
- 5) Up gradation of seed testing laboratories to ISTA standards
- 6) Auditing of all seed testing laboratories in the country
- 7) Regular capacity building programmes
- 8) Establishment of one more NSRTC in South India
- 9) Revision of field inspection manuals and seed certification procedures

Finally he concluded that if we follow International standards in our system the quality of the seed produced would be superior this indirectly strengthen seed system in the country.



Technical Sessions

Day 1, November 24, 2017

The technical deliberations were started with the Zero Assessment of the participants. Mr. Gerry Hall briefed the participants about the zero assessment test that, it is the essential part of the workshop to assess the knowledge level of participants and also informed that there will be one more test at the end of the workshop to assess the improvement.

Mr. Eddie Goldschagg, presented the first lecture of the workshop on International (OECD) Seed Certification- overview, different seed schemes, benefits and scope. In this presentation he emphasised on OECD Seed Schemes, their method of operation, participating countries, different categories of seed, benefits and scope for the member countries. In his presentation he mentioned recent developments in OECD Seed Schemes and also demonstrated the online system for registration of varieties in the South Africa. At the end he also responded to the questions raised by the participants.

Shri R K Trivedi, former Dy. Commissioner (QC), Ministry of Agriculture cooperation and Farmers Welfare, GOI presented on Rules and Directions for Enlisting of varieties/hybrids under OECD Seed Scheme in India. He stressed on the importance of quality seed in the agriculture and informed that in the countries like India where agriculture is the main source of livelihood for more than 60 % of the population. He stated that OECD seed certification insists on use of certified seeds in the member countries thereby improves the productivity farm and socio-economic conditions of the farmers. He also presented on the major difference between the OECD and Indian Seed Certification system and process of enlisting of varieties into the OECD list. He mentioned that lack of awareness, non availability of expertise and export potential varieties are the major setbacks. He suggested that technical staffs from certification agencies need to be identified and trained on OECD seed schemes and also stated that our national seed certification should follow the OECD system so that our domestic seed certification will be accepted at international level. At the end of his presentation he stressed on the importance of EU equivalence on seed standards for India to boost its seed exports.



Dr. K. Keshavulu, Director, TSSOCA and convener of the workshop presented on the Status of implementation of OECD Seed Scheme in India. In his presentation he detailed about the Indian participation in OECD seed schemes and also the status and progress made in the OECD seed certification. He informed that India is participating in six seed schemes viz., Cereals, Maize, Sorghum, Grasses and Legumes, Crucifers, Oil seeds & other fiber crops and Vegetables. He also highlighted the geographical advantages of India with respect to quality seed production and hence there is a huge scope for seed exports from Indian continent. He stated that unfortunately India is not doing well in

International seed trade and contributing around one per cent to the global seed trade while the small countries are doing it in a bigger way. In his presentation he dealt on various aspects like structure of OECD seed certification in India i.e about National Designated Authority and 10 Designated Authorities, Indian seed industry status, DUS and VCU testing requirements, OECD list of varieties and different categories of seeds. At the end he charted the way forward for the Indian Seed Industry to boost the seed exports under the OECD Seed Schemes.



Mr. Eddie Goldschagg, presented on Global Seed Trade and International Organisations. In this presentation he covered the role of various International organizations like ISF, IPPC, UPOV, ISTA & OECD. Individually he briefed the role and functioning of all the organizations in facilitating the seed trade. He covered the issues of patentability, varietal protection, seed testing, seed certification and marketing at global level. He also mentioned about the provisions, obligations and regulations for seed trade at international level.

Mr. Gerry Hall presented on OECD Seed Schemes Rules and Regulations: Part I. Legal and General Terms Common to All Seed Schemes - Council Decisions, Basic Principles, Methods of Operation, Application Procedures, Participation in Meetings, etc. In this presentation he covered the aspects like common rules and regulations of all the eight seed schemes, general terms of reference, role and responsibility of NDA, Annual OECD meetings and basic requirements for production of all categories of seeds under OECD seed schemes. He stressed more on varietal identity and purity, which are confirmed through the field inspections and control plot tests. He also opined that there should be a well coordination between the NDA, DA and maintainer of the varieties for success of the OECD seed schemes.



The day one ended with general discussion session wherein participants clarified their doubts on various issues regarding the subjects dealt in the day.

Theme: International (OECD) Seed Certification

The 2nd day of workshop had begun with presentation of **Mr. Eddie Goldschagg** on OECD Seed Schemes Rules and Regulations: Part II. General Rules and Regulations of all Seed Schemes- Eligibility criteria for varieties; Categories of seed, Definitions & Common appendices Common appendices. In this presentation he covered chain of multiplication of seeds under OECD seed schemes, production and control of different classes of seeds, procedures for acceptance of varieties, list of participating countries, procedure for multiplication of seed out of the countries, issue of certificates and labels, blending procedures, fastening of containers, post control tests & other general terms of references. He also covered the role and responsibility of the National government/NDA in ensuring the integrity of the seed schemes. The presentation was followed by the detailed discussion on blending of lots, seed testing and storage of basic and prebasic seeds.



Mr. Gerry Hall presented on Introduction to the OECD Scheme for Vegetable Seed. In this presentation he covered the requirements for vegetable seed production under OECD seed schemes. He also covered the aspects like eligibility criteria for the varieties, VCU requirements, field inspection procedures for vegetable, seed lot size, sampling and labelling procedures. He also mentioned the special class of seed i.e standard seed which specific to vegetable seed schemes only. He also stated that there is some kind of ambiguity in vegetable seed schemes.

Mr. Eddie Goldschagg delivered a presentation on Labelling – Colour coding, examples of OECD Labels, required information on labels and OECD Varietal Certificates. In this presentation he covered various aspects on labellings like shape, size, content, colour and fastening method. He said that labelling is an essential process to identify the seed lots, and each seed lots should be stitched / printed with proper label. He also shown some models of labels with contents. He enforced that there is no validity period for the OECD labels as the genetic purity can't be changed and seed can be used as long as it is able to grow into plant. He also explained the procedure of repacking and relabelling in out of the country of production.

Mr. Gerry Hall continued his lectures and presented on Eligibility criteria and acceptance of varieties – DUS & VCU testing procedures in the context of OECD Seed Certification. In this

presentation he covered OECD requirements for acceptance of varieties, DUS and VCU testing, descriptions of the varieties, etc. He mentioned that the maintenance of official list of varieties is an essential step certification, trade and movement of seed. He also stated that the testing and enlisting of varieties is the responsibility of the member country duly following the internationally recognized guidelines (UPOV guidelines). In the presentation he showed technical examination report of enlisting of varieties in UK.

Mr. Eddie Goldschagg delineated lecture on Registration of seed production fields, general crop and field requirements, Field Inspections – Methodology & field counts. In this presentation he covered the topics like eligibility of seed production plots for registration, procedure of registration of seed plots, company registration, methodology of field inspection and other field standards like previous cropping, isolation requirements and varietal purity standards. He explained in detail the methodology of taking field counts and accepting or rejecting the seed plots. He also demonstrated the online system seed plot registration and field inspection reporting developed in South Africa.

Mr. Gerry Hall dealt on Authorization of Inspectors, samplers, seed testing laboratories for OECD seed certification. In his presentation he mentioned that it is the responsibility of the Government / NDA who is responsible for the implementation of the schemes to authorise the Seed Testing Laboratories, crop inspector and seed samplers for the purpose of OECD seed certification. He also stated that there should be some criteria in authorising the labs and seed samplers like inspection labs, written and practical examination for inspectors and seed samplers to know their competency. There should also be some kind of regular trainings for staff. He said that it is also possible to authorise private non official persons for inspection and sampling but in such cases there should be supervision by the officials. The field inspectors or seed samplers are accountable for the work they have furnished to the NDA.

Mr. Eddie Goldschagg presented on Introduction to the OECD Schemes for Sorghum Seed. In this presentation he covered specific rules & regulations of sorghum seed scheme like varietal purity and identity standards, previous cropping requirements, isolation, field inspection, seed lot size and sampling. He mentioned that earlier sorghum was combined with maize scheme in 2017 annual meeting it was separated into individual scheme. He also explained the post control test procedures for sorghum and procedures for production of different classes of seed under sorghum scheme.

At the end of the day the general discussion was held, in which participants clarified their doubts by the experts on various issues of seed certification.

An official Workshop Dinner was arranged by the organizer as a part of Workshop for the Foreign Delegates and the Participants. Dr. B. Rajender, IAS, Joint Secretary (Seeds), GOI, graced the occasion as chief guest along with Shri. C. Partha Sarathi, IAS, Agricultural Production Commissioner & Principal Secretary to Government, Government of Telangana and Dr. K. Keshavulu, Convenor of the workshop and Director, TSSOCA and also the Directors of various State Seed Certification Agencies from across the country.

Theme: Interaction with National Designated Authority (NDA),
OECD Seed Schemes, Government of India

As a part of workshop an interaction meeting between the Dr. B. Rajender, IAS, Joint Secretary (Seeds) and NDA (OECD seed schemes) and all the participants.



Dr. K. Keshavulu, convener of the workshop and Director, TSSOCA welcomed the delegates and all the participants to the interaction meeting and briefed about the workshop and mentioned that participants are from both public and private sector and they came from different States of the country. He also introduced the OECD experts from UK and South Africa to NDA. He also mentioned about the OECD Master trainers in the country who have undergone training in abroad namely Shri K Ramana Murthy from Andhra Pradesh and Shri B S Gupta from Rajasthan.

Mr. Eddie Goldschagg briefly presented on role and responsibility of National designated Authority. He mentioned that NDA or its representatives must participate in all the meetings of OECD to continue its participation. He also stressed on remittance of annual fees, maintenance and regular update of national list of varieties, authorization non-official inspectors for inspection, authorization of non-official laboratories for testing and post control tests of the seed against standard sample or authentic sample.

Shri C. Partha Sarathi, IAS, APC & Principal. Secretary to Government. (A&C), Govt. of Telangana, in his remarks stated that OECD seed schemes established in 1958, whereas India entered in 2008 to enhance our share in international trade. He mentioned that the Govt. of Telangana is striving hard to realize the vision of hon'ble Chief Minister to make Telangana State as 'Global Seed Hub'. In this regard we organized national and internal workshops. With the help of OECD seed schemes the national certification system will also be strengthened. He also stressed on revision of field inspection manual and procedures and harmonization with OECD system as OECD have strong linkages with ISTA, ISF, UPOU,FAO. He also articulated that India has to initiate a dialogue with other OECD countries with the help of embassies by organizing meeting with other countries NDA. Next step will be testing of our OECD enlisting varieties in other countries and creating of demand for our OECD enlisted varieties in other OECD countries. He emphasized on need of European equivalence for seed trade in European countries and said that national certification system & seed production system has to be strengthened by strengthening our public sectors research system. He suggested that identification of potential states for seed production and strengthening

of labs. Hybrid Rice of Telangana is having high demand in other states & countries and hence NDA is requested to initiated seed exports SAARC countries. He also requested other States to explore their potential in identifying the potential crops/varieties/areas for export seeds under OECD seed certification.

The participants from different States interacted with NDA and rased their doubts in front of NDA. The brief of the interaction is presented below;

The Vivek Tokare from Maharashtra State Seed Corporation (Mahabeej) raised the question that there is surplus seed especially in case cereals and pulses which are left unsold due to water shortage. can surplus seed be exported under OECD ? and he wanted to know varietal demand according to OECD member countries.

Dr. P Selvaraj, Special Officer (Seeds), TNAU expressed his ideas that the NSC and SSCs can play bigger role in OECD and the seed technology professionals who re working in Agriculture Department may be placed in seed certification department.

Shri K. Ramanamurthy, SSCO, APSSCA mentioned the progress of OECD seed schemes developments since 2008, and recollected the problems encountered in the way. He appreciated the efforts by the Govt. of Telangana in giving momentum to the OECD seed programme. He also made some suggestions that these programme has to be spread all over country and meetings should be conducted in each State. Varieties/hybrids which are having export potential need to be identified and promoted especially the private sector hybrids and also a single window system need to created.

Dr. Sukant Dasgupta, from WBSSCA raised question that how to export, where to export and when to export and he also suggested to create single window system to get this information at a single place

Shri B. S. Lakshamanmurthy from KSSOCA suggested that there should be uniform procedures & methodology on OECD throughout the country

Miss Nidhi Mohan from NSC opined that medicinal crops has to be listed in OECD to enable export and trap global trade. Similarly the millets crops has to be listed in OECD.

Shri Subrat Kumar Sahoo from Hytech Seeds requested the NDA on behalf of Private Seed Companies to develop the online process for OECD seed programme for operational ease.

Shri B S Gupta from RSSOPCA suggested that the left over seed may be sold in the domestic market and also there is a scope to export it to SAARC countries. regarding this NSC has been given as nodal agency for export of maize seeds to Afganistan but it is not implemented yet.

Mr. Gerry Hall added some points that OECD secretariat is not legally liable but NDA is only legally liable for any disputes. NDA has to update the quantity of seed produced and exported under schemes to the OECD secretariat regularly.

Dr. B. Rajender, IAS, Joint Secretary (Seeds) & NDA, Government of India while addressing the participants, he applauded the efforts of Govt. of Telangana in taking steps for initiating OECD seed programmes on behalf of Govt. of India. He instructed all the participants to take the workshop seriously and do some changes in the respective States by prioritizing this issue. He also said that unless we meet the standards we cannot export the seeds, so we need to strengthen national seed certification system. In order to ensure continuity of the programmes the SCAs will be strengthened in terms of infrastructure, manpower and technical expertise. He also suggested to prepare timeline for the implementation of the schemes in terms of area, programmes and trainings. He also assured to provide single window online platform for OECD and supporting state certification Agencies to strengthen seed certification system.

Theme: ISTA & Seed Sampling

Mr. Eddie Goldschagg started the sessions for the 4th day with a presentation on Short Overview on ISTA Rules Development. In this lecture he covered the aspects like introduction to ISTA, historical development of seed testing and ISTA, ISTA rules for seed testing and sampling, method of standardization of ISAT rules, STL accreditation process, proficiency test and membership of ISTA. He mentioned that ISTA established with motto of uniformity seed testing and involved in development, standardization and uniform adoption of these methods all over the globe to ensure the uniformity in seed testing. In addition, he also said that ISTA will carryout research activities related to seed. He mentioned the any member/country can also propose new rule / amendment to the existing rule to ISTA secretariat. He also explained the organogram and working nature of the ISTA in his presentation.



Dr. K. Keshavulu, Director, TSSOCA presented on Scope to enhance International seed trade under the OECD Seed Schemes. He elaborately projected the structure of Indian seed industry, strengths and weaknesses, present export scenario, and major export destinations for the Indian seed in the world. He also given hint that there is a vast demand for Indian seed and OECD seed schemes will facilitates the seed trade. He clearly distinguished the national and OECD seed certification system and discussed the way forward to boost the seed exports.

Mr. Gerry Hall delivered a lecture on General Principles of Seed Sampling, where he explained about the basic principles, purpose of sampling and responsibilities of the sampler and also about what could be done when heterogeneity is observed while sampling and factors that may affect the quality of a seed lot during harvest and post harvest stages. He clearly explained about the sampling intensity and sampling procedures. He explained about sources of heterogeneity and has shown practically how heterogeneity arises if proper sampling methods are not adopted.

Mr. Eddie Goldschagg presented a lecture on General introduction to sampling methods where he explained the procedures of sampling, type of samples to be drawn, preparation of different kinds of samples, methods of sampling, sampling equipments and shown the video on the drawl of primary sample by different methods using various seed samplers and accurate techniques during sampling.

Mr. Gerry Hall has introduced the topic on Dividing composite samples into submitted samples. He emphasized on sample reduction methods and procedure to be followed to obtain submitted sample and procedure to operate various sample dividers of conventional to modern era and their importance. Later, a video clip on the "sample reduction" was shown to the participants. He also mentioned about the different dividers used and precautions to be taken while operating the dividers.



Mr. Eddie Goldschagg presented the topic on Check, Calibration and maintenance of sampling equipment. He has presented an overall view about the ISTA Accreditation standards for maintainence of equipments, the accuracy required for the equipment and the calibration before use and thereafter, tolerance levels and their acceptance criteria. He has also given a detailed account of the calibration and when it should be carried out. He discussed about the reporting of results after dividing the sample and the SOP for Checking of dividers. He also emphasised on the record maintenance, which is very important for the accredittation process.

Mr. Gerry Hall delivered the lecture on Post-Control general, where he explained the procedures for conducting the control plots. He mentioned that control plot tests are the cornerstones of the OECD varietal certification, which are required to be conducted to know the efficiency of the seed schemes operation in the country. He elaborately explained the testing procedure of control plots, and varietal descriptors to be recorded and also about the reference and standard samples.

Mr. Eddie Goldschagg presented the last lecture of the day on Rules and Guidelines for Multiplication Abroad and Database & Record maintenance. In this presentation he explained the procedures for multiplication of seed of the country. Records/data need to be maintained and responsibility of NDAs of the both exporting and importing countries.

Theme: Control plots

In the beginning of the day Mr. Gerry Hall delivered lecture on post control general, where he explained about the procedures for conducting control plots, selection of land, seed bed preparation, layout and designing of control plots. He also mentioned about importance of planning of time line for sample receipt, sowing time, start of the observations, frequency of observation and final report preparation. The storage of the seed sample is must for future usage like any appeal or litigation purpose.



Dr. Jagadish Head, ISTA lab, Indo-American Hybrid Seeds from Bengaluru delivered lecture on Harmonization of seed testing for OECD seed certification. In this presentation he depicted the seed export scenario of the world. He emphasised the quality of seed and mentioned that it is the driving force of seed market at global level. He briefly explained about functioning of ISTA and its role in harmonization of seed testing for facilitating the seed trade.

The final assessment of participants was carried out, where in participants were given 20 minutes to complete the test. This was conducted to measure the level of improvement in the participants.

Valedictory function



Dr. K. Keshavulu, Director, TSSOCA welcomed the chief guest Shri Pocharam Srinivas Reddy , Hon'ble Minister of Agriculture and Allied sector, Govt of Telangana and other dignitaries. He briefed about the workshop to the minister and thanked the Govt. of Telangana for supporting the TSSOCA in every aspects.

Shri C. Partha Sarathi, IAS, APC & Prl. Secretary to Govt. (A&C), Govt. of Telangana, in his remarks stated that OECD seed schemes established in 1958, whereas India entered in 2008 to enhance our share in international trade. He mentioned that the Govt. of Telangana is striving hard to realize the vision of hon'ble Chief Minister to make Telangana State as Global Seed Hub. He also announced the decision taken by the Joint Secretary (Seeds) in the last meeting that establishment of NSRTC in South India and seed promotion council to have single window system for export of seeds.



Mr. Eddie Goldschagg, OECD expert from South Africa in his remarks he recollected the memories of the annual meeting held at Chicago in 2008 where in India's participation was approved. He mentioned that since the last 10 years there is no much progress happened in this field. He appreciated the Govt. of Telangana for taking initiative in implementation of the schemes.

The participants namely Dr. P. Selvaraj from TNAU, Smt. Rajani from Nuziveedu seeds, Dr. J S Nayal from Uttarakhand, Mr. Abdul Rasheed Yattoo from Kashmir, Mr. B S Guta from Rajasthan and Mr K Ramana Murthy from Andhra Pradesh expressed their feed back on workshop and praised the Govt. of Telangana for organizing this workshop.

The chief guest **Shri Pocharam Srinivas Reddy, Hon'ble Minister for Agriculture and Allied Sectors**, Government of Telangana, addressed the participants and briefed the status of Agriculture in Telangana state and emphasized the role of quality seed and its benefits from the farmers point of view, as it helps in increasing the income and growth of the farmer. He stated that the Telangana State has congenial agro-climatic conditions for seed production and excellent logistic service facilities as it is located in the focal point of the country connecting East-West and North-South hence, the State is recognised as "Seed bowl of the Country". He also stated that Telangana State is moving forward in exploring the new possibilities by implementing innovative approaches to increase the seed export potential to make this state as Global Seed Hub. Further, he mentioned that this workshop will help in learning the procedures for improving the quality of seed at international level and thanked the foreign experts and the organizers for conducting the workshop in Hyderabad.



Day 6: November 29, 2017

Theme: Practicals on Seed Sampling

The practical session on sampling was held in the Seed Processing Unit of M/s. Kaveri Seeds Pvt. Ltd. which is located at outskirts of the Hyderabad. The seed lots of various species in various types of containers (hessian bags, bulk bags and small pouch packs) were prepared for practical sampling exercises.

Participants were made into two groups for conducting the practical session on **Seed Sampling**. Eddie Goldschagg dealt on the sampling of small packages; Gerry Hall on practical exposure of drawing the samples with Nobbe trier and seed sampling to be done for hessian bags / jumbo bags.

In post lunch session, practical on **Sample reduction and validation of dividing equipments** was done on different crops like paddy, sunflower, maize and soybean using the hand halving method, Riffle and Boerner Dividers.

Practicals on Seed Sampling



Felicitation



Felicitation



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Telangana State Seed & Organic Certification Authority

Department of Agriculture & Cooperation
Government of Telangana

in collaboration with

Department of Agriculture, Co-operation & Farmers' Welfare

Ministry of Agriculture & Farmers' Welfare
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&

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