

**WELCOME**  
**TO PRESENTATION ON**  
***“QUALITY CONTROL OF SEED”***

**PRESENTED BY: SEED REGULATION CELL**

**COMMISSIONERATE OF AGRICULTURE**

# WHAT IS SEED QUALITY?

**IT IS DEGREE OF EXCELLENCE WITH REGARD TO**

- ❑ GENETIC PURITY**
- ❑ PHYSICAL PURITY**
- ❑ GERMINATION**
- ❑ VIGOR**
- ❑ FREEDOM FROM DISEASES**
- ❑ SEED MOISTURE**
- ❑ OTHER CHARACTERS Viz., SEED SIZE, WEIGHT, SPECIFIC GRAVITY AND COLOUR**

# **WHY QUALITY CONTROL OF SEED IS REQUIRED ?**

- **THE BASIC PURPOSE IS TO REGULATE THE QUALITY OF SEED BEING SUPPLIED TO FARMERS**
- **GOOD AGRICULTURE DEPEND ON GOOD SEED AND VICE VERSA**
- **SOWING OF BAD QUALITY SEED IS THE GREATEST HAZARD IN AGRICULTURE**

# MECHANISM OF QUALITY CONTROL OF SEED

## THROUGH SEED LEGISLATION AND SEED LAW ENFORCEMENT

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*Exemption (As per Section 24 of Seeds Act, 1966): Seeds of any notified kind and variety grown by a person and sold or delivered by him in his own premises to another person for the purpose of sowing/ planting (farmer to farmer exchange of seeds as envisaged in Seed Village programme) is exempted*

# **SEED LEGISLATION- FUNDAMENTAL PHILOSOPHIES**

- **EUROPEAN PHILOSOPHY: AIMS AT EXCLUDING LOW OR UNCERTAIN QUALITY SEED FROM MARKET**
  
- **NORTHERN AMERICAN PHILOSOPHY: AIMS AT LABELING OF ALL SEED MEANT FOR SPECIFIED SEED QUALITY ATTRIBUTES FOR MARKETING**

# **TYPES OF SEED LEGISLATION**

**SANCTION LEGISLATION: DEALS WITH FORMATION/  
ESTABLISHMENT OF ADVISORY BOARDS, SEED CERTIFICATION  
AGENCIES, SEED TESTING LABS, SEED PROGRAMMING,  
APPELLATE AUTHORITY ETC.,**

**CONTROL LEGISLATION: DEALS WITH REGULATORY LAWS  
OF QUALITY OF SEED SOLD IN THE MARKET INCLUDING THE  
ESTABLISHMENT OF LAW ENFORCEMENT AGENCIES**

# LEGISLATION ON SEED

- **SEEDS ACT, 1966**
  - **SEEDS RULES, 1968**
  - **SEEDS (CONTROL) ORDER, 1983**
  - **PLANT VARIETIES PROTECTION & FARMERS RIGHTS ACT, 2001**
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- **STATE SEED BILL, 2004**
  - **SEED BILL, 2004**
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- *Memorandum of Understanding (MoU)*

# **SALIENT FEATURES OF SEEDS ACT,1966 & SEEDS RULES, 1968**

- **Seeds Act, 1966 is a Primary Act, contains 25 sections and 8 statutory forms numbered from I to VIII, implemented in the year 1969 along with Seeds Rules, 1968**
- **Seeds Rules, 1968 contains 39 Rules**

## **Salient features Seeds Act, 1966 & Seeds Rules, 1968 :**

- **Applicable only to seed of notified kinds and varieties**
- **Certification is voluntary**
- **Punishment is ineffective**
- **Licensing of dealer is not dealt**
- **Compulsory packing, sealing and labeling in a prescribed manner**
- **Meeting of prescribed standards of germination and purity**



## **SALIENT FEATURES OF SEEDS (CONTROL) ORDER, 1983**

- **It is a subordinate legislation promulgated under Section (2) of Essential Commodities Act, 1955 after declaring seed as EC vide S.O.No 26(7)/82-FCR dt 24/2/83**
- **Implemented in the year 1994**
- **Contains 18 clauses, 1 schedule (dealing with procedure of sampling and despatch to laboratories) and 4 forms (A,B,C and D)**
- **Applicable to seed of all kinds and varieties**
- **Punishment is awarded as per Section 7 of ECA, 1955**
- **Licensing of dealer**
- **Import and export of seed**
- **Inspection and punishment**

## **STATE SEED BILL, 2004**

- **Promulgated for implementation at A.P level only**
- **It contains 54 sections**
- **To create provisions of**
  - **Compensation to affected farmers due to poor quality of seed**
  - **Stringent punishment**
  - **Control of seed quality at production & processing by mandatory registration**
  - **Licensing of dealers**
  - **Referral laboratories**
- **Draft legislation is approved by State Cabinet**
- **Concurrence of Govt of India on Seed Bill is awaited**

# SEED BILL, 2004

- **Promulgated by Govt of India**
- **Contains 49 sections**

## Salient features:

- **Registration of seed of kinds and varieties**
- **Provision to deal transgenic and GM varieties**
- **Compensation to farmers**
- **Registration of seed producers and processing units**
- **Accreditation of individual/ institutes for certification**
- **Minor and Major offences**
- **Penalties raised**

# **Memorandum of Understanding (MoU)**

- **It is an interim arrangement formulated by State government in the year 2001**
- **To take care of compensation to farmers who suffer losses due to poor germinability, genetic impurity and non adaptability**
- **Terms and conditions for implementation of MoU were formulated**
- **Continuation of MoU beyond 2004-05 is under consideration of state Government**

# DEFINITION OF IMPORTANT TERMS

- **Kind: Crop**
- **Notified kind and variety: Kind and variety notified under Section 5 of Seeds Act, 1966.**
- **Seed Analyst: Officer possessing prescribed qualification, notified under section 12 of Seeds Act vide notification G.O.Ms no 464 F&A (FPPII) dt 28/5/1975 (for seed analyst, STL,Tadepalligudem), memo no.1132 FPPII/73-2, Food and Agril, dt: 19/5/1973 (for seed analyst, STL,Rajendranagar), G.O.Rt No: 639 A&C(FPPII) dt:1/6/1999 (for seed analyst, STL,Yemmiganoor)**
- **Seed Inspector: Officer possessing prescribed qualification and notified under Section 13 of Seeds Act, 1966 and clause 12 of Seeds (Control) Order, 1983 vide G.O Ms no:571 F&A(FPPII) dt: 3/8/1977, G.O Ms no.1048 F&A(FPPII) dt: 3/12/1991 and G.O Ms no.97 F&A(FPPII) dt: 11/2/1985**

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# **DEFINITION OF IMPORTANT TERMS**

- **Licensing Authority at district level: District Joint Director of Agriculture is licensing authority vide notification G.O Ms no.97 F&A(FPII) dt: 11/2/1985 under clause 11 of Seeds (Control) Order, 1983**
- **Licensing Authority at state level: Addl. Director of Agriculture (dealing seed subject) is licensing authority vide notification G.O. Ms.No.17,A&C (FP.I),Dept,AP dt.5.2.1998 under clause 11 of Seeds (Control) Order, 1983**
- **Certification: To be sought in Form I from APSSCA**
- **Certification sample: Sample drawn and referred by seed certification officer to the notified laboratory of seed certification agency for conformation of seed standards in respect of certified or foundation class of seed**
- **Grant of certificate: Issued in Form II by APSSCA**

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# DEFINITION OF IMPORTANT TERMS

- Certification tag: 15 x 7.5 cm sized, IS 104 Azure Blue coloured and as per the layout prescribed in appendix VII of IMSCS,1988 is meant for Certified class of seed. Same tag with white color is meant for foundation class of seed.
- Breeder label: 12 x 6 cm sized, IS 356 Golden yellow coloured and as per the layout prescribed in appendix I of IMSCS,1988 is meant for Breeder class of seed. This label should possess actual analytical values of the seed lot.
- Compulsory labeling: It is prescribed as per Section 6(b) of Seeds Act, 1966
- Mandatory label: 15 X 10 cm sized,IS 275 Opal green coloured and as per the layout prescribed by Govt of India vide S.O No 767(E) dt:6/11/1991 and S.O.No 124(E) dt: 2/8/05 (for adoptability provision)

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## **DEFINITION OF IMPORTANT TERMS**

- **Service sample:** Sample referred by Mandal Agricultural Officer/Seed producer for quality evaluation for the purpose of distributing the seed, labeling of seed, payment of cost etc., It is non-law enforcement sample and does not attract provisions of Seeds Act, 1966 or Seeds (Control) Order, 1983. The prescribed fee (except for service samples those referred by department) is Rs 50/- per sample in the form of challan payable on head of account: 0401-Crop husbandry, 800-Other receipts, 02- Collection of payment for service rendered towards seed testing charges, 800- Other charges
- **Notification of kind and variety:** Under section 5 of Seeds Act, 1966, 119 kinds and 3173 varieties are notified for the purpose to regulate the quality of seed being supplied to the farmers. All notified kind and varieties, whether it is certified or T/L seed, should conform to IMSCS, 1988 standards



# **DUTIES OF SEED INSPECTOR**

**(As per Rule 23 of Seeds Rules, 1968)**

- **Inspect as frequently as may be required all the places used for Storage or Sale of seed of any kind and varieties.**
- **Satisfy himself that the conditions of the tag/label are being observed.**
- **Procure and send sample of seed of any kind and variety for analysis if necessary.**
- **Investigate any complaint which may be made to him in writing.**
- **Maintain the records of all inspections and actions taken by him.**
- **Detain seed stock on suspicion.**
- **Institute prosecution in respect of breach of the Act.**
- **Perform other duties as may be entrusted to him by Government**

## **POWERS OF SEED INSPECTOR (As per Section 14 of Seeds Act, 1966)**

- To take samples of any kind and varieties from any person selling such seed or purchaser or consignee.**
- To enter and search all reasonable time with such assistance**
- To examine any record, register, document or any other material object and seize the same.**
- On demand to pay the cost of the seed.**
- To break open any container in which any seed of kind and varieties may be contained or to break open the door of any premises on refusal of custodian to open the door on being called upon to do so.**
- Conduct the Panchanama when search and seizure is attended.**
- Intimate to the Munsif Magistrate immediately after the seizure of stock and material carried out duly following the code of criminal procedure 1898 under section 98**

# METHOD OF INSPECTION OF DEALER PREMISES

- Take the licence issued in Form-B and if subsequently renewed in Form-C for verification.
- Take the stock registers being maintained for whole sale and retail stocks along with invoices and delivery challans for verification of book entries.
- Record the ground balances - kind and variety wise.
- Take the inventory of seed containers available in the premises after date of expiry.
- Verify the stock position depicted on stock board for whole sale and retail purposes with reference to book balances and ground balance record variety wise variation if found any.
- Check whether Form-D is furnished regularly or not
- Verify the source of seed based on Certificate of source

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# METHOD OF INSPECTION OF DEALER PREMISES

- Check the information given on the compulsory label of seed container and compare with it required information to establish that seed has been labeled as per Seed Laws
- Take the memorandum of cash/credit, verify the format and availability of kind and variety, brand, lot No, etc., and signature of seller and purchaser.
- Check whether stock registers and bill books are certified by Seed Inspector
- Verify the storage conditions that seeds stocks are away from stocks of fertilizer and pesticide
- Prepare the inspection report duly recording the rectifiable and non rectifiable contraventions.
- Segregate the seed lots to be detained, seized and from which samples are to be drawn

## **METHOD OF DETENTION OF STOCK**

- **Detain stock as per Section 14 (C) of Seeds Act, 1966 (for seed of notified kind and varieties) and Clause 13 (d) of Seeds(Control) Order, 1983 (for seed of all kinds and varieties)**
- **Detention of stock in case of any suspicion or complaint or on observing rectifiable violations**
- **Issue stop sales order for detention of stock in Form III for a period of 30 days under Seeds Act, 1966 and for indefinite period under Seeds(Control) Order, 1983**
- **Make required entry of issued stop sales order in stock book also**
- **Based on status of rectification of defects, revoke detention order or further issue order of detention for 30 days more before expiry of earlier detention order**

# **METHOD OF SEARCH & SEIZURE OF STOCK/ RECORDS**

- **Powers of Seed Inspector to seize as per Section 14 (1) (d) of Seeds Act, 1966 (for seed of notified kind and varieties) and 13 (d) of Seeds(Control) Order,1983 (for seed of all kinds and varieties)**
- **Procedure of seizure: as per sub-clause (1) of section 100 of Code of Criminal Procedure,1973**
- **Seizure of stock is done in case of non rectifiable violation (substandard seed/ illegal seed/expired seed/ misbranded seed/seed from unauthorized sources)**
- **Serve copy of Form-VII to dealer and obtain acknowledgement (in case of substandard seed case)**
- **Record seizure details in [Form IV](#)**
- **Conduct panchanama**
- **Inform to magistrate for safe custody order as per section 457 and for safe disposal order as per 458 of Code of Criminal Procedure,1973**

## **CONDUCTING PANCHANAMA**

- **It is an important legal document used for establishing offence by corroborative evidence**
- **Conducted at the time of drawl of sample or detention of stock or seizure of stock/records or inspection or search or breaking open of premises or absence of dealer while serving notices/reports**
- **Should be drafted afresh, not to use printed formats**
- **All events should be recorded in chronological order**
- **Involve at least 2 easily identifiable persons as witnesses and record their complete and permanent addresses**





[REDACTED]. Seed sampling by inspector.





Seed inspector preparing the seed sample.

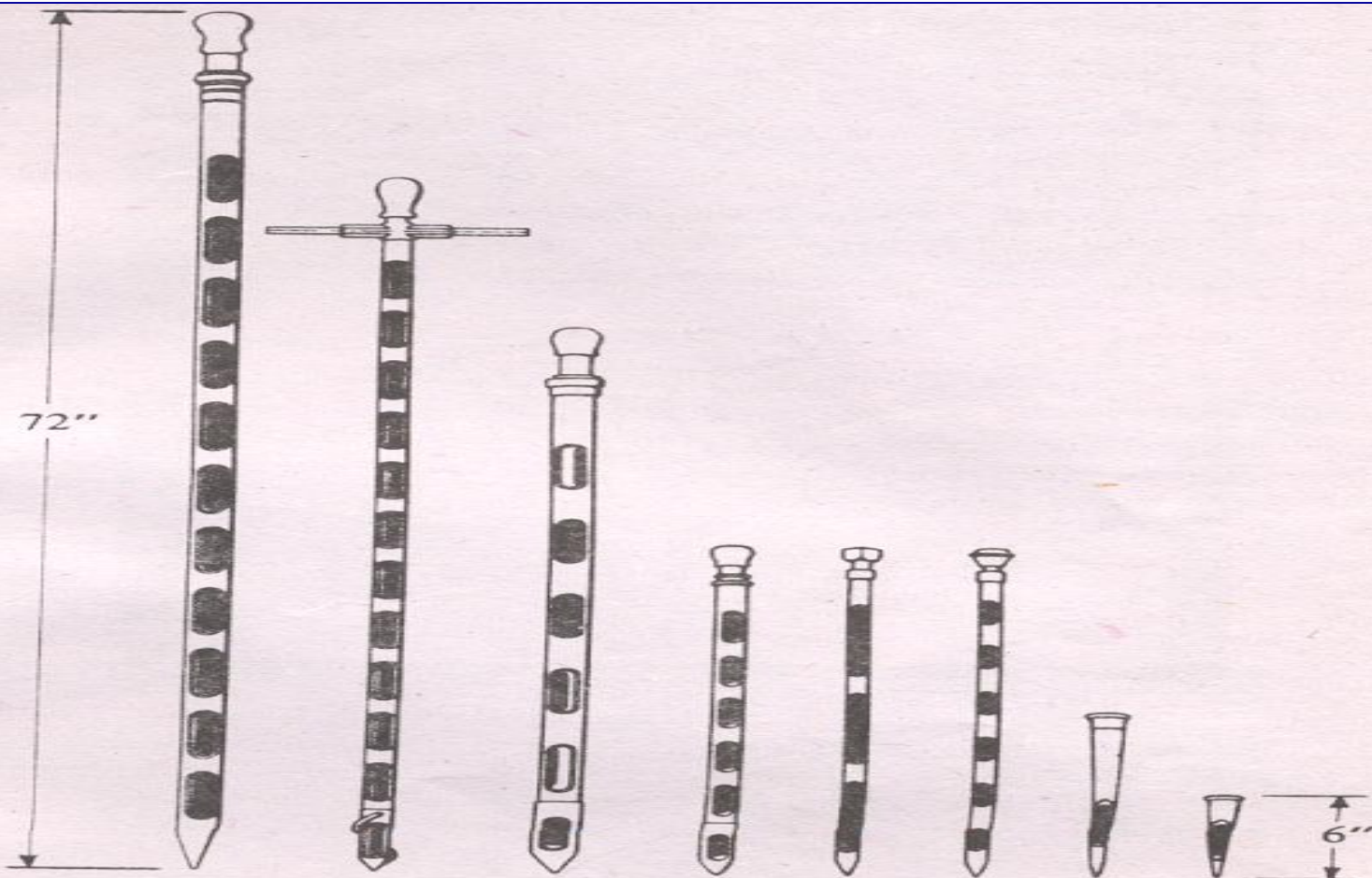


Fig. 12.1. Examples of sampling probes. On the far right is a "thief probe."

Regardless of the lot size, however, it is not necessary to sample from more than thirty bags. Here are some examples:

No. of bags in lot	5	7	10	23	50	100	200	300	400
No. of bags to sample	5	6	6	7	10	15	25	30	30

**Seed in Small Containers.** Seed in small containers should be sampled by taking at random an entire unopened container from the supply in order to obtain the minimum amount required for the working sample.

## METHOD OF DRAWL & DESPATCH OF SAMPLE

- Draw the samples as per the prescribed procedure in Schedule 1 of Clause 13 of Seeds (Control) order 1983 (Refer Ready Reckoner)
- Issue notice to dealer in Form VI
- Draw the samples from the lots of sufficient validity period
- Draw the samples in the presence of at least 2 witnesses
- Draw Primary samples by following prescribed sampling intensity:
- Incase of bulk sampling (heaps/bins/wagons):
  - Up to 50 kgs – minimum of 3 samples
  - 51 to 500 kgs- minimum of 5 samples
  - 501 to 3000 kgs- one sample per every 300 kgs, but a minimum of 5 samples
  - 3001 to 20000 kgs- one sample per every 500 kgs, but a minimum of 10 samples

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- **In case of bag sampling (bags/containers): (1 container =100 kg =1 Unit)**
- Up to 5 containers – one sample per every container, but a minimum of 5 samples
- 6 to 30 containers- one sample per every 3 containers, but a minimum of 5 samples
- 31 containers or more- one sample per every 5 containers, but a minimum of 10 samples
- Prepare a composite sample by mixing primary samples drawn
- Get 3 test samples of prescribed size (submitted+guard+dealer) out of composite sample (Incase of GOT- 1 more sample of same size, Incase of Moisture test- 1 sample of 50 to 100 gms in a polythene cover)
- Pack each of these 3/4 samples in a dried cloth bag, seal, wrap along with [information slip](#) and [Form V](#) and seal the packet in a prescribed manner
- Send the submitted sample preferably on the day of drawl to the STL notified for the district and ensure safe storage of guard sample



## **SHORTFALLS THAT QUALIFIES FOR REJECTION OF SAMPLE BY STL**

- **Sending undersized sample**
- **Not furnishing Form V or incomplete Form V**
- **Non-indication or incomplete or false indication of C&DA code on Form V**
- **Improper packing and sealing of seed sample container against the prescribed procedure in Schedule 1 of Seeds (Control) Order, 1983**
- **Delay in transit for considerable period**
- **Not sending sample to allotted STL**
- **Sending sample by a courier whose delivery point is far away from location of STL which causes inordinate delay in taking delivery, thus some times leads to rejection of sample**

## **FOLLOWUP ACTION- FOR SUBSTANDARD SAMPLE**

- Serve Form VII to dealer followed by seizure of stock/records and obtain custody orders from magistrate**
- Issue show cause notice to the defaulter viz, dealer /distributor/ producer as per the discretion of Prosecuting Officer ie, Assistant Director of Agriculture under whose jurisdiction the defaulters premises is located.**
- Refer the matter to the Public Prosecutor along with all specimen evidences viz, Form No. III, IV, V, [VI](#), [VII](#), [VIII](#) and copy of Panchanama, copy of explanation called for, reply thereof and copy of the labels and tags, Magistrate orders for safe custody of material and records collected in the course of inspection.**
- On receipt of opinion from Public Prosecutor the Prosecuting officer shall seek the permission of Commissioner of Agriculture ([Prosecution proposals](#)) for instituting prosecution against the defaulter**
- Limitation period (Stipulated period within which the case has to be filed in the court): 6 months from date of receipt of analysis report**

## **REFEREE SAMPLE ANALYSIS OPTION FOR SAMPLE DECLARED SUBSTANDARD BY STL**

- **As per Section 16 (2)(b) of Seeds Act, 1966**
- **It is an option of the dealer/producer/complainant by making an application to the Court after institution of prosecution**
- **Payment of fee by applicant of Rs 10/- in the form of demand draft in favor of Head, Central Seed Testing Laboratory payable at New Delhi**
- **Court selects one of the samples of guard/dealer/half of submitted sample sent back by seed analyst**
- **Court dispatches sample under its seal to Central Seed Testing Laboratory, Division of Seed Science and Technology, IARI, PUSA Complex, New Delhi**
- **Analysis report within 30 days from CSTL and it supercedes STLs report**

## **PRECAUTIONS TO AVOID FAILURE OF PROSECUTION**

- **Drawal of sample by prescribed sampling instrument.**
- **Adopting prescribed sampling intensity as given in Schedule I of Seeds (Control) Order, 1983.**
- **Adopting prescribed procedure of packing and despatch as envisaged in Rule 26 & 29 of Seeds Rules, 1968.**
- **Regular attendance at Court.**
- **Proper replies in chief/cross/re-examination**
- **Conducting of Panchanama.**
- **Serving of Form-VII ie, analytical report to the dealer.**
- **Calculation of limitation period, which commences from the date of acknowledgment of Form-VII.**

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## **PRECAUTIONS TO AVOID FAILURE OF PROSECUTION**

- **Maintenance and production of all specimens in the court:**
  - a) **Form-III, IV, V, VI, VII, VIII, Cash receipt**
  - b) **Guard sample**
  - c) **Consent of Commissioner.**
  - d) **Copies of show cause replies.**
  - e) **Permission of magistrate for order of safe custody.**
  - f) **Production of witnesses.**
- **Keeping the seized stock under combined seal of seed inspector and dealer.**
- **Drawing the seed sample from the seized stock prior to shifting of stock to safe custody.**

# **SHORTFALLS THAT QUALIFIES ACQUITTAL OF ACCUSED**

- **Sampling without using prescribed sampling equipment and sampling intensity**
- **Not conducting panchanama**
- **Not following prescribed packing and sealing procedure**
- **Witnesses turning hostile**
- **Filing case after limitation period**
- **Failure in Chief/cross/re- examination**
- **Not quoting relevant sections/rules/clauses of act, instead referring the instructions of JDA/C&DA**
- **Failure in production of guard sample**

## **CODE OF ATTENDING THE COURT**

- **Be regular and punctual in attending the Court and prepare in advance**
- **Be prepared to wait even for a long time to get your turn**
- **Appear with confidence, be relaxed and give the best answers**
- **Know legal procedures (Chief examination, Cross Examination, Re-Examination)**
- **Look at the Counsel while he is questioning and look at the Judge while you give answers**
- **In case the question put to you is not understood by you, request for repetition of the question**
- **If irritating or demoralising questions are put to you, give your answer politely and not enter in to arguments with any one in the Court**
- **You cannot look in to documents and give evidence, but if you feel like, you can refer with the permission of the Court**

## **OTHER RELEVANT LAWS**

- **Sale of unauthorized seed at unauthorized premises – IPC 420**
- **Sale of seed by fly by night operators – IPC 420**
- **Furnishing false information- IPC 420**
- **Misbranding of seed – IPC 487**
- **Sale of underweight seed containers – Package Commodity Act, 1966 at Rule 1977**

# **MEASURES ADOPTED FOR STRENGTHENING QUALITY CONTROL OF SEEDS**

- **Focused crop wise seed sample targets for Kharif and Rabi seasons**
- **Constitution of squads at mandal/ district/ state level**
- **Constitution of special squads for Bt cotton**
- **Drawl of samples from the portions of lots declared substandard elsewhere**
- **Pre-market quality assurance program for Bt cotton seed**
- **Constitution of core groups for preparation and implementation of action plan (G.O Rt No: 825 dt 18/8/2005)**
- **Appointment of law officers**
- **Special Courts for exclusive trails on input cases**
- **Organizing workshops for field staff and representatives of seed companies on usage of ELISA quant kits**

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# **MEASURES ADOPTED FOR STRENGTHENING QUALITY CONTROL OF SEEDS**

## **Capacity enhancement and infrastructure development:**

- **Training of staff**
- **Supply of sampling kits/ Bt express kits/ ELISA kits**
- **Setting up of 19 district seed testing labs under single window diagnostic facility scheme**
- **Strengthening of existing notified labs**
- **Proposed program of seeking notification for 5 district labs**
- **Setting up of DNA fingerprinting lab**
- **Acquiring land on permanent basis for conducting GoT at Seed Testing Lab, Rajendranagar**

## CONTACTS/REFERENCES

Licensing Authority (Addl Director of Agriculture, O/o C&DA):

**040-23383509/ 9440816602**

Seed Regulation Cell, O/o C&DA, Hyderabad:

**Phone: 040- 23383515/ 9440816630**

**E-mail:comag.srcell@ap.nic.in**

**Website (for forms-A,B,C, D and I to VIII):**

**<http://gist.ap.nic.in/agri/seedforms.html>**

**(for Acts):<http://agricoop.nic.in/ppactregu.html>**

**(for notified varieties): <http://agricoop.nic.in/ppactregu.html>**

**ADA,STL,Rajendranagar: 040-24012574/9848442266**

**ADA,STL,Tadepalligudem: 9866528934**

**ADA,STL,Yemmiganoor: 9440204876**

**THANK YOU**

**&**

**GOOD LUCK**