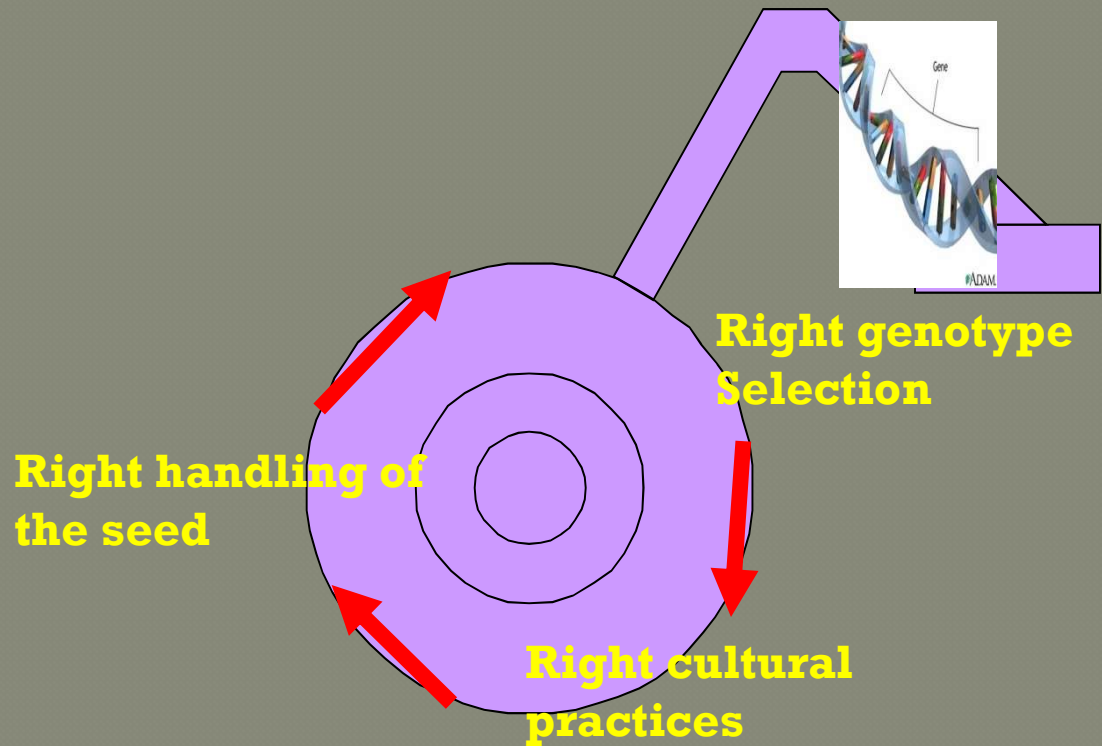


# SEED MULTIPLICATION MODEL BASED ON GENERATION CONCEPT

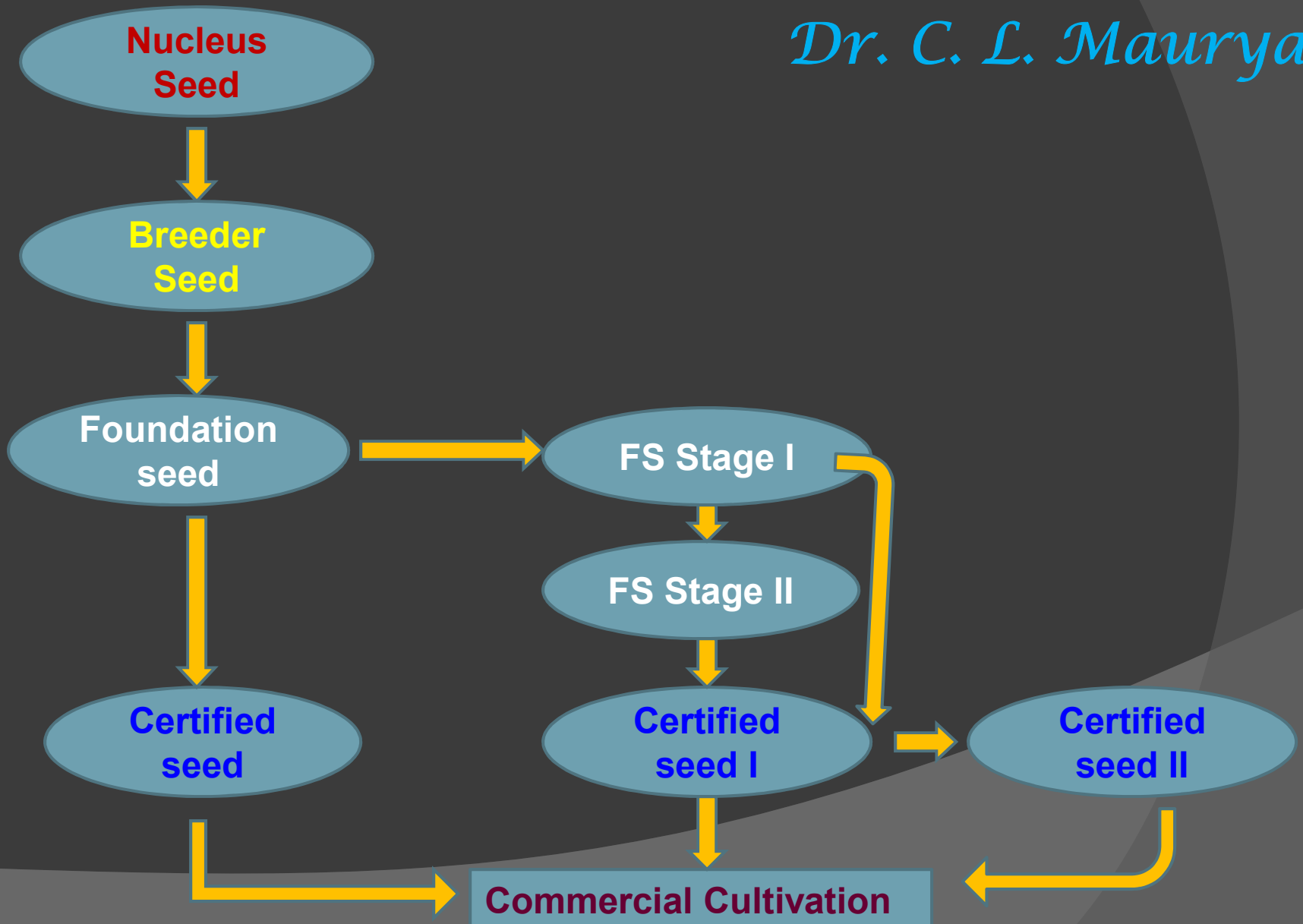
*Dr. C. L. Maurya*  
**Professor**  
**CSAUAT, Kanpur**



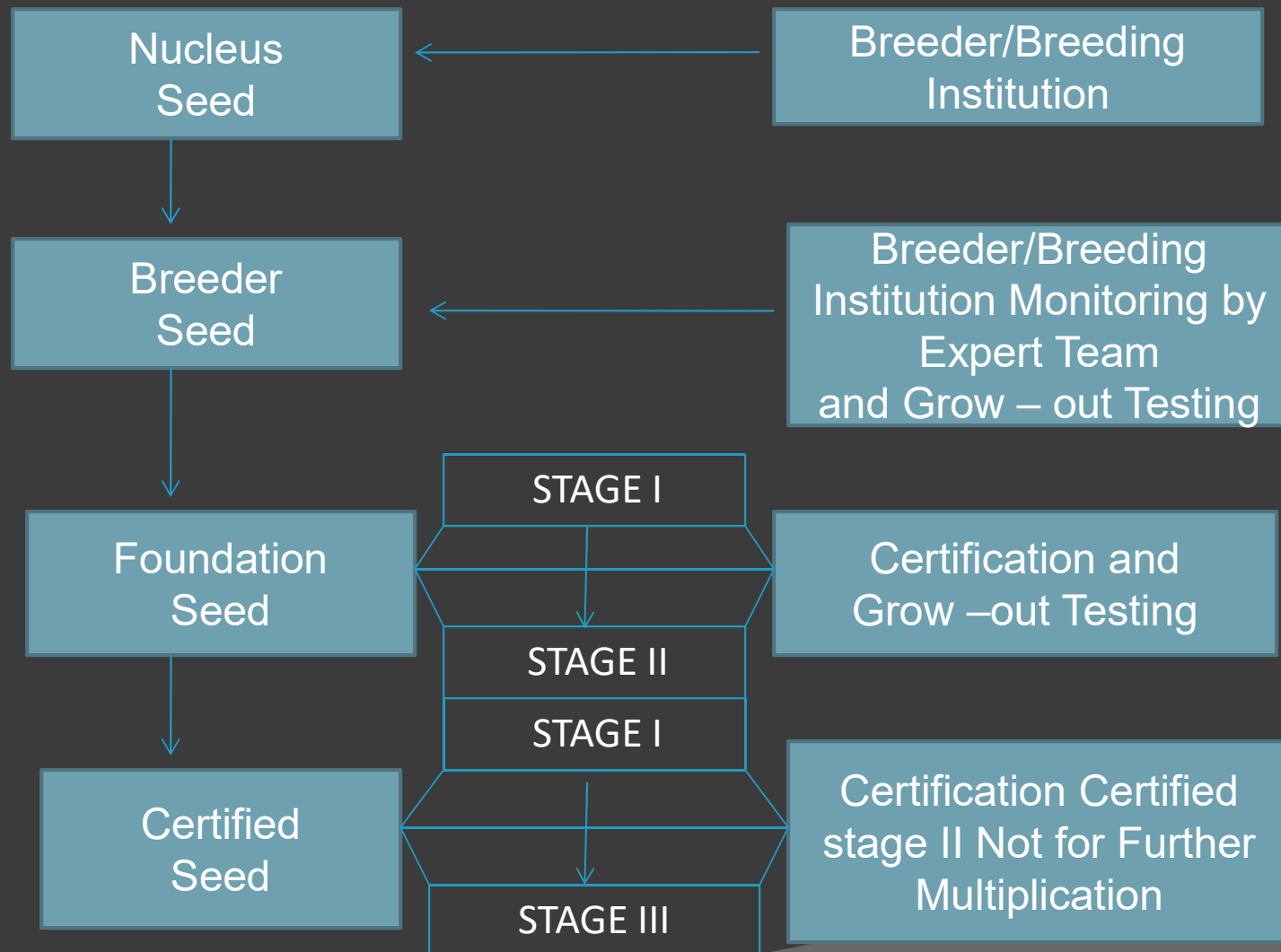
**SAVE THE SEED SERVE THE NATION**

# SEED MULTIPLICATION CHAIN

*Dr. C. L. Maurya*



# Seed Multiplication Model Based on Generation Concept



*Dr. C. L. Maurya*

# NUCLEUS SEED

- ☀ Produced by the originating/concerned crop breeder.
- ☀ Cent percent genetically and physically pure.
- ☀ Produced from basic nucleus seed stock or from the progenies of the plant selected from breeder seed production plot.
- ☀ Nucleus seed is the source of breeder seed.

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200-500 Panicles  
/ears are selected

200-500 Panicles  
/ears rows grown

Rows deviated from  
varietal character (s):  
Rejected

**NUCLEUS  
SEED**

Rows conform the  
varietal character (s):  
Selected, harvested  
and blended together

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## BREEDER SEED

- ☀ Progeny of Nucleus seed.
- ☀ Produced under the direct supervision of the concerned crop breeder in the recognized research institutes of SAU/ICAR .
- ☀ Serves the recurring source of foundation seed.
- ☀ Cent percent genetically and physically pure.

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## **BREEDER SEED**

- ☀ Seed plot is monitored by the committee consists of concerned Crop Breeder, representatives of Crop coordinator, NSC and SSCA and Seed Officer/producing breeder of the SAU as the convener.
- ☀ After clearing by the monitoring committee, the seed material is sent to the university Seed Unit, for further seed processing and testing.

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## BREEDER SEED

- ☀ The seed lots confirming both seed standards and grow out test are allowed for distribution to different seed producing Institutes as per Govt. indents for foundation seed production.
- ☀ Golden yellow tag is issued by the concerned crop breeder.

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## BREEDER SEED

- ☀ The size of the breeder tag is 12 x 6 cm
- ☀ During supply of breeder seed, the bag intact with golden yellow label, Cash bill, breeder Seed certificate and copy of the monitoring report should be issued.

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## FOUNDATION SEED

- Progeny of breeder or foundation seed stage I.
- Before sowing the foundation seeds to be used for multiplication should be “Source Verified” by the concerned seed certification officer along with necessary documents such as purchase bill, tags and release order etc.

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## FOUNDATION SEED



After source verification of breeder seeds by the SCO, the seed material can be used for foundation seed production.



Within 15 days from the date of transplanting or 30 days from direct sowing, filled in prescribed form along with the necessary certification charges needs to be submitted to respective Regional Seed Certification offices.

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## FOUNDATION SEED

- All the foundation seed field needs to be regular inspected by the Seed Certification Agency.
- After getting approval from seed certification agency, crop is harvested and seed lot sent to the Seed Processing unit for grading.
- After seed processing, the seed lot should be sent for seed quality testing.

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## FOUNDATION SEED

- After confirming the necessary seed quality standards, UPSSCA will issue the **white tag with validity period of 9 months** from the date of test.
- The size of the tag is **15 x 7.5 cm.**

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## FOUNDATION SEED

- During supply of F/S, the cash bill, STL report and release order needs to be supplied.
- Foundation seed is supplied to the NSC, SFCI, SSC, private seed companies and progressive farmers for production of certified seed

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## CERTIFIED SEED

- It is the progeny of foundation seed or certified seed (in case of self pollinated crop if the required foundation seed is not available.)
- The certified seed is multiplied by NSC, SFCI, SSC, Private seed companies of repute and progressive farmers.

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## CERTIFIED SEED

- All the steps in seed production is as same as foundation seed production.
- After confirming the necessary seed quality standards, UPSSCA will issue the Blue tag with validity period of 9 months from the date of test.
- In this class of seed, GOT is compulsory for hybrids only.

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## TFL SEED

It is the class of seed multiplied under the direct supervision of the concerned producer and the quality standards is same as prescribed for the certified seed.

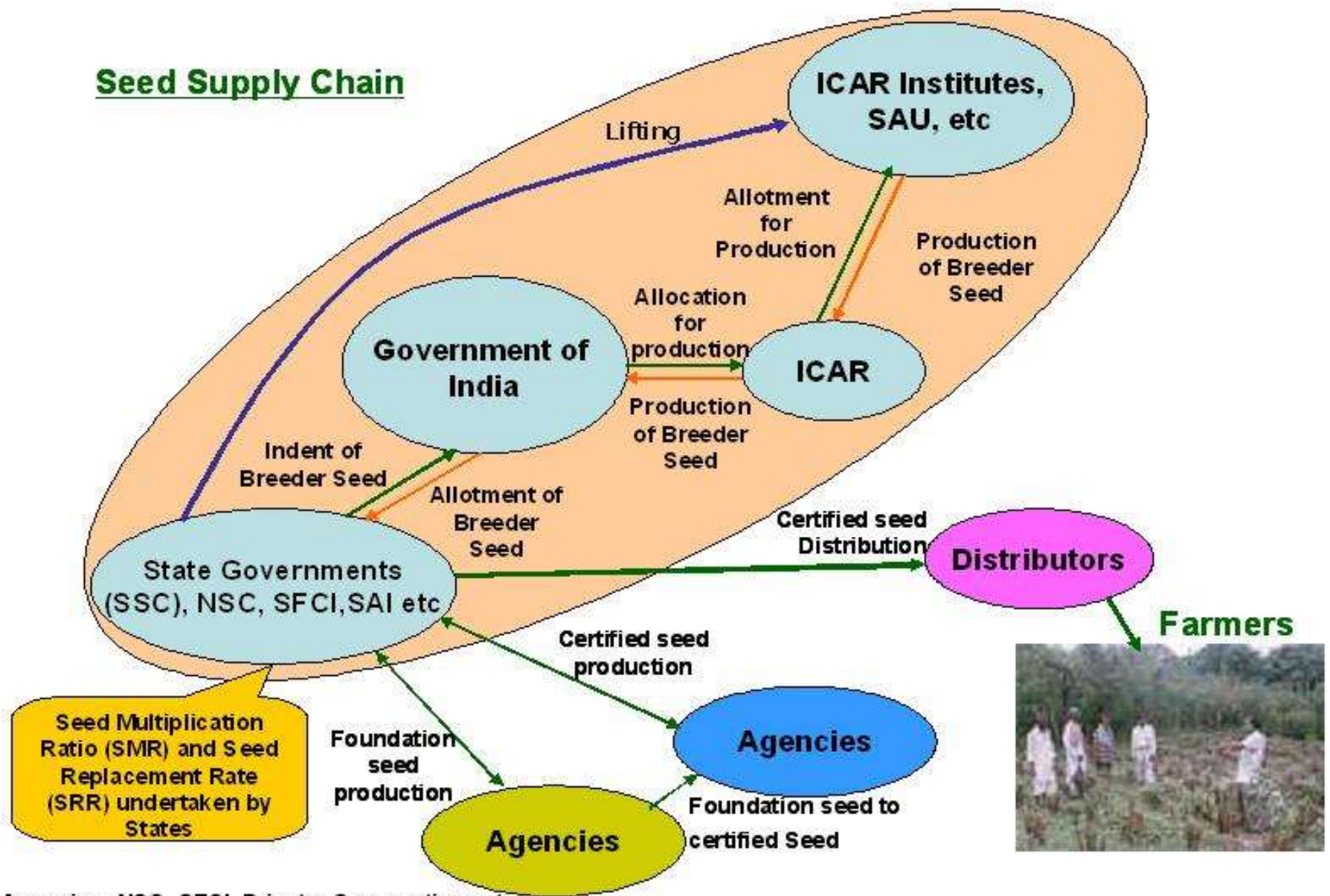
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## STANDARD FOR GENETIC PURITY

Sl. No.	Class	Min. Genetic Purity (%)
1.	Nucleus Seed	100.00
2.	Breeder Seed	100.00
3.	Foundation Seed	99.00
4.	Certified Seed	
	a. Varieties, composites, synthetics and multiline	98.00
	b. Hybrids	95.00
	c. Cotton, TPS etc.	90.00
	c. Castor	85.00

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## Seed Supply Chain



Agencies: NSC, SFCI, Private, Cooperatives etc

Distributors: Cooperatives, NSC etc

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PROF-ORMA	PROFORM A NAME	DESCRIPTION
<b>BSP I</b>	<b>Allocation Report</b>	The indent of breeder seed production allocated to different institutions
<b>BSP II</b>	<b>Sowing Report</b>	Sowing report of breeder seed plots
<b>BSP III</b>	<b>Monitoring Report</b>	Monitoring Report of breeder seed plots.

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PROF-ORMA	PROFORM A NAME	DESCRIPTION
<b>BSP IV</b>	<b>Production Report</b>	Final figure of the quantity of breeder seed processed.
<b>BSP V</b>	<b>Lifting Report</b>	The quantity of seed lifted or not lifted as per allocation.
<b>BSP VI</b>	<b>Conversion Report</b>	Quantity of foundation seed produced from the lifted one.

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