

*Framework of Understanding between Trait Developing Companies (TDCs)  
and Plant Breeding Companies (PBCs) within the Seed Industry*

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## BACKGROUND

- The Seed Industry had differing views on the **interpretation of the Patents Act and the PPVFR Act.**
- Such **differences led to delay in commercializing** path breaking research in biotechnology and plant breeding and their availability to the farmers through seeds.
- Both association NSAI and FSII had several rounds of discussions, and reached a consensus for working in India, so that the fruits of innovation in biotechnology and plant breeding are integrated for the benefit of farmers by increasing crop productivity.

# OBJECTIVES

- To encourage Plant Breeding Companies (PBC) to breed better varieties by providing access to new traits on the principle of **“Nondiscriminatory access but not for free”**.
- **To encourage development of new traits** by Trait Developing Companies, National & International public research institutions (TDC) by providing models for **return on investments** made for trait development, environment approval, stewardship etc. It is agreed that the trait value should facilitate recovery of these investments for further research investments by the TDCs for continuous development of traits.
- To bring a framework towards **adherence of stewardship guidelines** by all PBCs so as to ensure the delivery of the full agronomic potential of the trait for a longer period.
- All the above objectives are towards not only to the welfare of the Industry but also **to ultimately make farming easier and profitable to the farmer.**

## SCOPE

- This is an interim arrangement among the diverse Industry players.
- These agreements shall not be interpreted as any party ceding their statutory rights.
- All rights as provided by the respective legislations to the parties shall remain intact.

## OPERATIONAL GUIDELINES

- Allow nondiscriminatory access to the qualifying PBCs for various traits like GM, non GM traits brought into cultivated species.
- There is a lot of opportunity to stack traits from different sources and manage resistance better.
- The mechanics of responsibility for regulatory approval, cost of deregulation, ratio of trait value sharing, responsibilities & liabilities of different parties, etc., should also get covered in this framework.

## The following aspects are accepted as broad elements of the framework by all participants.



### 1. The rights of the TDCs and the rights of the PBCs developing new plant varieties with the traits, have to be mutually respected.

The TDC shall provide **Non transferable access** on a **nondiscriminatory** basis to the traits developed by them to PBCs qualifying as per following three criteria for developing superior plant varieties.

- a) Adhere **to stewardship guidelines** to deliver the intended benefits as well as to sustain the efficacy of the trait.
- b) Agree to pay the trait value/benefit share as **determined in accordance with the guidelines** set out below as long as the trait is delivering the intended benefit to the farmers.
- c) Possess financial capacity with a net worth of **Rs. 5 Crs, annual sales of above Rs. 12.5 Crs** and **a profit making company with a minimum of Rs. 0.60 Crs profit per year for last 3 years**. If the PBC is not a profit-making company, the net worth may **be higher at Rs. 10 Crs**. The PBC shall also have plant breeding expertise, research infrastructure with a farmland of **15-20 acres (own or with long lease for a period of at least 5 years)**, a poly house in case of need of containment facility, seed quality management infrastructure with well-defined quality protocols, IBSC and other statutory requirements to handle biotech traits.

## 2. Trait Value determination

- 2.1** The determination of trait value for each trait will be guided based on **the trial data, the value delivered to the farmer**, the agronomic value of the trait, the prevailing price of the seed without the trait and such other parameters like crop economics as they deem relevant to a specific trait.
- 2.2** The TDC will make a **presentation to the Industry Governing Body (IGB)** proposing the trait value. This will be discussed in the IGB and finalized.
- 2.3** While determining the Trait value the IGB will observe the guideline that the trait value **should be between 5% and 20 % of the Seed Value** (defined hereinafter) unless there are abnormal reasons to go below or above the range. The Trait with smaller potential (sales volume due to small area of a crop or narrow use of the trait leading to limited sale volume) will have a higher % while traits with large potential for business will have slightly lower %.
- 2.4** Such trait value, in **absolute value (and not as a % of price)** as determined through the above process, shall be **uniformly applicable to all PBCs** irrespective of their individual seed prices.
- 2.5** The trait value will be on a **telescopic scale of time** (assuming that the volume of business will go up with time and then will stabilize before eventually coming down). The trait value would be at **its highest in the first 5 years after introduction** and then will have a sliding scale with a **reduction up to 5% of the value every year as decided by IGB**. The Industry Governing Body (IGB) may decide the exact percentage of annual reduction based on data on changes in crop economics, penetration of the trait, etc
- 2.6** However, the trait value shall be paid only till the trait is delivering the intended agronomic benefit to the farmers. The two associations will take the help of an independent technical body to assess whether the trait is continuing to deliver the intended agronomic benefit or not.

### 3. Determining the Seed Value and thereafter the Trait value



Before the IGB decides the trait value and the percentage of seed value to arrive at the trait value to be paid by PBCs to the TDCs as described under 2 above, the following steps required to be undertaken to arrive at a uniform trait value payable by all PBCs:

- a). The **list price (not the MRP) of the top five to ten companies** in the crop shall be considered to arrive at the average list price of the crop (average price of hybrids / varieties constituting at least 50% market share).
- b). **25% discount** on the average list price, as arrived above, to be deducted to arrive at the "seed value".
- c). This seed value will be the basis for the IGB as detailed under 3.3 above to arrive at the absolute trait value as a % of seed value.
- d). Such trait value shall be uniformly applicable to all PBCs for the first five years after commercialization. The seed value increment, during this five years period as may be changed by PBCs due to inflation of cost of production, shall not alter the trait value. In other words, even if the list price goes up subsequent to arriving at trait value during the first five years period, it shall not impact/alter the trait value.
- e). After five years, the trait value shall reduce as per the framework. While increasing the seed value to adjust inflation, the reduction of trait value shall be adjusted / reduced from the increment in seed value from the 6<sup>th</sup> year onwards so that the benefit of reduced trait value shall be passed on to the farmers.
- f). If there is any Govt. intervention to regulate the seed prices, the trait value shall be corrected and adjusted accordingly by the IGB.
- g). It is clarified that PBCs shall always be at liberty to individually set seed prices for their products and that the reference to seed prices in this framework is only for the purpose of calculating trait value.



4. Once the trait value is determined it will be **communicated to the Ministry of Agriculture, GOI** by the two associations through a written communication.

5. The PBC is responsible for maintaining stewardship guidelines provided by the trait provider and the regulatory body. The PBC is **responsible for maintaining the quality of the seed** and the trait purity in the seed as per the regulations under the appropriate legislations. The PBC has to **make payment of trait value to the TDC as per the access** agreement signed. In case of **delay in payment of trait value, the PBC shall pay interest @ 12% per annum**. Prolonged delay in making payments may **attract cancellation of the Access Agreement and recovery proceedings** with the support of the IGB. The associations will make sincere efforts to persuade such errant PBCs to make timely payment of the trait value.

6. The PBC will have **the right to register their varieties with the trait under the PPVFRA** duly acknowledging the presence of the trait accessed from the TDC. The **TDC shall not make any IP claim on plant varieties** with the trait or enforce any IP right on the plant varieties of the breeders/seed companies **who are paying trait value under this framework**. The PBC shall not make or enforce any IP claim on the trait perse.

## 7. Performance failures and claims by the farmers

- Any **performance failures or claims based on performance** related to trait shall be the responsibility of the TDCs whereas the performance related to the variety / hybrid shall be the responsibility of the PBC. **However, both parties shall support each other as required from time to time while defending the claim.**
- A **legally binding Access Agreement** covering the above aspects will be signed by the TDC and the PBC when access is provided to the trait.

## FORMATION OF INDUSTRY GOVERNING BODY.

### The possible composition of the IGB:

1. President of **NSAI** or his nominee
2. Chairman of **FSII** or his nominee
3. One Representative of **TDC**
4. Two Representatives of **two PBCs** out of which at least **one shall be representing small and medium companies** in the Industry identified by the two National Seed Associations
5. An independent person of eminence who will Chair the IGB- **Invitees without voting**
6. An independent biotech/seed scientist (if needed)
7. Two representatives of the PBCs, who have a major market share in the crop under consideration. (one each from FSII and NSAI)

## ROLE OF IGB

- Facilitating the determination of trait value percentage by evaluating the data submitted by TDC, the market situation, the value being delivered to the farmers , seed companies views and detailed discussion in IGB .
- When more than one trait coming from different TDCs is stacked together IGB will facilitate the formula for stacking the overall trait value between TDCs who are contributing the trait in stack. This is based on evaluation of value of each trait, trial data need of farmers, seed companies views, etc



**This IGB will discuss the proposals in all the required detail and take suitable decision which will be fair to all parties concerned.**




**The IGB decision must be by consensus and voting shall be avoided unless it is absolutely necessary. The dissent in such cases will be recorded.**



**The President/Chairman of NSAI/FSII shall be Member Secretary of the IGB by rotation for one year at a time.**

- **This year all the secretarial work is take care by FSII.**



**OTHER TECHNOLOGICAL HELPS AND  
ARRANGEMENTS FOR SEED INDUSTRY BY  
NSAI**

nsa

National Seed  
Association of India

## **BREEDER SEED INDENT:**

**NSAI helping Small and Medium seed Companies through National Breeder Seed Indent system:** The indents from various seeds producing agencies are collected and after compiling the whole information crop wise send to DAC. On receipt of information from DAC, the available breeder seed is allocated to all the indenters in an equitable manner.

**NSAI regularly disseminate information to its members about:**

- **Public Bred new varieties which are having good quality and high market potential**
- **Signing of MoU and licensing agreement with concern Institutes like ICAR and SAUs made available.**
- **Promotion of high Varietal Replacement Rate (VRR) by sending details of only 10 years old varieties which are in seed chain.**

# AWARENESS THROUGH WORKSHOPS AND WEBINAR

**NSAI had organised trainings/Workshops/Webinars for better understanding and to prepare the seed industry for new technologies**

The seed companies should always be ready to adopt the new technology & innovation

## **1. Workshop on Bar Coding or QR Coding for Traceability of Seeds:**

**In the training workshop resource persons from the leading Technical Companies such as GS1 India, Bar Code India Limited, Tata Consultancy Services Ltd and Nuziveedu Seeds Ltd were present.**

- Each resource person gave the detailed information about the barcoding system and explained how the companies could provide them end to end solution.
- **Government will start implementation of the Bar Coding on seed packets for traceability**
- Workshop gave brief idea about this new upcoming system



## **2. WORKSHOP ON “ACCESS & SHARING OF PLANT GENETIC RESOURCES” in COLLABORATION with NBPGR**

- The objective of the workshop was to aware the members about the access of Plant Genetic Resources and their use for R&D so that applicability of the topic increases and the members were fully benefitted in their business.
- Exchange of Plant Genetic Resources (PGR) offers enormous opportunity
- Knowledge about Material Transfer Agreement (MTA)/Standard Material Transfer Agreement (SMTA)

## **3. ENCOURAGE MEMBERS TO JOIN CONFERENCES, SEMINARS, TRAINING, AND WORKSHOPS ORGANISED BY VARIOUS GOVERNMENT AGRICULTURE DEPARTMENTS, ICAR INSTITUTIONS, AND STATE AGRICULTURE UNIVERSITIES.**

### **Examples:**

- “Innovations in quality seed production in forage crops” being organized on 22-24 Nov.2021 at ICAR-IGFRI, Jhansi.
- National Trainings & National Workshops to be conducted by NSRTC during 2021-22 at NSRTC Varanasi



THANK YOU !

PARTICIPANTS

nsa |

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