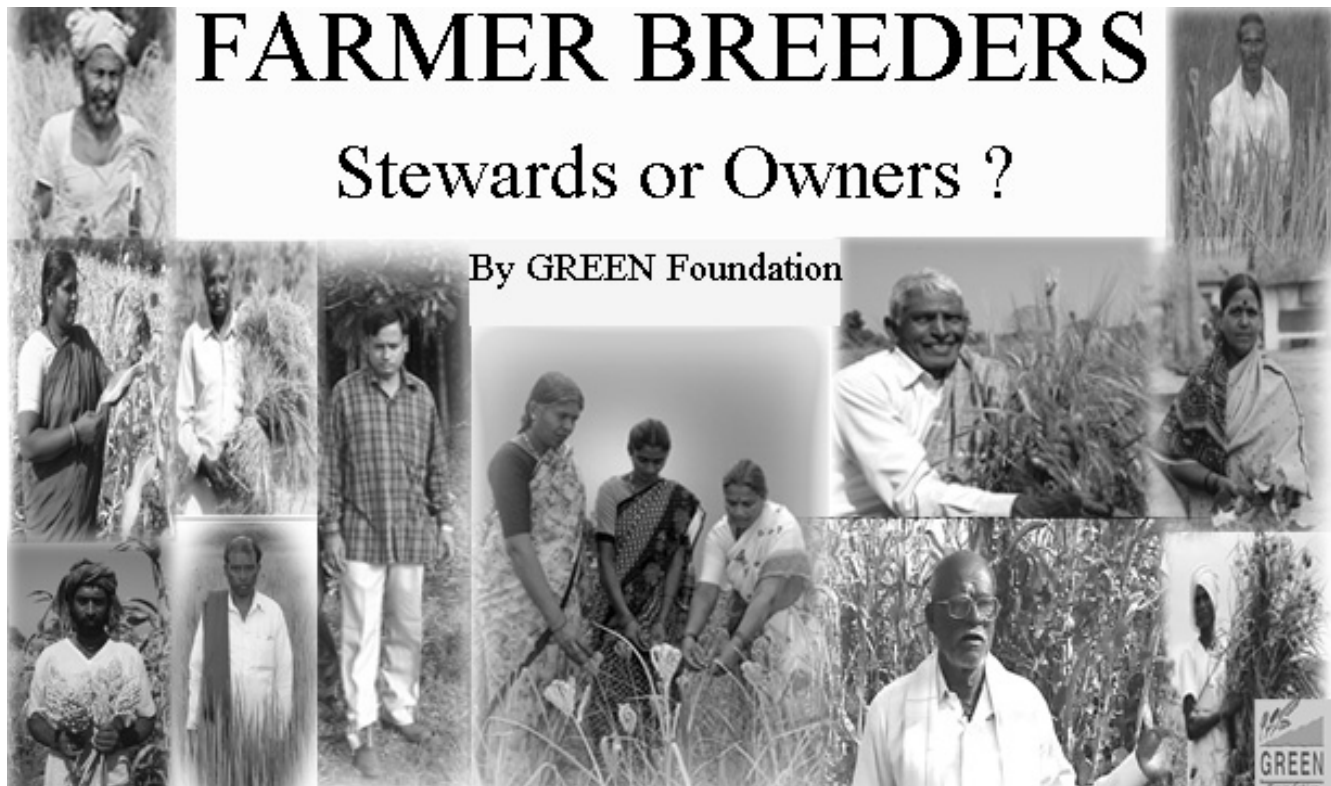


FARMER BREEDERS

Stewards or Owners ?

By GREEN Foundation



Farmer Breeders - Stewards or Owners? is a glimpse of the farmers who have taken this strenuous journey of scouting, conserving, multiplying and improving the indigenous varieties. This booklet is published to honour and recognize the work of the farmers who are model to other farmers of our country.

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PREFACE

The awareness about "On farm in situ" conservation of agricultural biodiversity, amongst many Civil Society Organizations became a major development agenda and thrust towards sustainable agriculture in the early nineties as an outcome of the Convention on Biological Diversity. Over the years, with the development of modern breeding and the creation of new, improved crop varieties, farmers had switched to commercial agriculture, replacing the diverse landraces conserved by farmers. As a result, areas previously rich in agricultural biodiversity had been replaced with genetically homogenous fields.

The issue of farmers' rights was first raised as a global concern in 1986, after the Food and Agricultural Organization of the United Nations (FAO) adopted the International Undertaking on Plant Genetic Resources (IU). Several years later, FAO Resolution 5/1989 officially recognized the concept of farmers' rights, but the resolution was not legally binding. In 2001, after years of debate, a legally binding international agreement on farmers' rights was reached with the adoption of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture.

The treaty's objectives are the conservation and sustainable use of crop genetic resources and the equitable sharing of benefits arising from their use. A multilateral system for access and benefit sharing, established under the treaty, governs the exchange of germplasm from 35 food crops and 29 forage plants - all specified in an annex to the treaty - that are controlled by the contracting parties and also in the public domain.

While the treaty recognizes farmers' enormous contribution to the crop genetic diversity that forms the basis of all food production, it does not include an official definition of farmers' rights. Instead, it obliges the contracting parties to protect and promote farmers' rights and suggests measures for doing so. These measures are generally regarded as the elements of farmers' rights in the present debate.

They include:

- " The protection of traditional knowledge*
- " Fair and equitable benefit sharing*
- " Participation in decision making*
- " The right to save, use, share and sell farm-saved seed*

This booklet is an outcome of an effort to scout for farmers who have engaged themselves to conserve, develop, select and innovate the crop genetic resource that have been in their custody. This list of farmers is symbolic of the thousands of farmers all over the country who are engaged in these activities for decades.

It has been clearly articulated in the prologue to the legislations that the government's view is to provide good quality seeds to the Indian farmers. In a country like India for eons farmers have been saving and sowing seeds from their own farms and would rather not rely on any outside source. It is an anathema that the legislation using the sui generis options is proposing the reverse. On the other hand farmers need the seeds they choose as most appropriate in their context culturally and ecologically and be supported to become self-reliant for seeds so as to ensure the quality. This would mean freedom in the true sense.

The seeds bill was tabled in the parliament with the intention of repealing the seeds act of 1966. In 2004, the parliamentary standing committee on agriculture presented its report on the bill with several changes. Among the recommendations a key one was the recognition of farmer's rights to save, use, exchange, share or sell seeds without restriction or registration. In its present form the seed bill prohibits farmers from using, selling their seeds under a brand name. It is mandatory that the seeds for sale comply with the same criteria as the registration requirements for the industry seeds.

One notes the emphasis the Committee puts on making the Indian PVP (Plant Variety Protection) law fully operative before bringing forth the new seeds law. It has been time and again critiqued that like any other PVP law in the world, the Indian version too is basically meant to protect plant breeders not small farmers or for crop conservation.

From a review of the literature on the PVP legislation one finds that a PVP law, no matter how "good" it appears, only privatizes planting material. In any case, for a group of farmers who toil to get a "farmer's variety" PVP certificate, there is no clarity on how counter claims on the same variety from other farmers is going to be dealt with. This raises the question "How appropriate is the PVP/IPR system in the Indian context?" Also more PVP certificates being issued only means more breeders having control over plants and seedling material which hitherto was freely available to the farmers.

Experiences of other countries with PVP also need to be considered; PVP has meant less freedom for farmers to save and use PVP-protected seeds. There is also cause to believe that there will be reduced flow of germ plasm from the private to the public sector. In the light of more patent-like rights and more patents themselves what is the role of the PVP?

The sum and substance of the debate should be that traditional knowledge and genetic resources need to be protected from IPRs and not by IPRs.

Vanaja Ramprasad

Managing Trustee, GREEN Foundation

FARMER

BREEDERS

ABHAY MUTALIK DESAI

Rushi Krushi Homa Farming
Sutagatti, Tq & Dist: Belgaum,
Ph: 9900775633



An engineer by profession. His father was a farmer. He wanted to help other farmers so he chose to become an organic farmer. He is the head of

Organic Food Club. In 2002 an unregistered group of 8 organic farmers in the name of Organic Food Club was formed in Yamkanmardi 35 km from Belgaum city. The main objective was to supply organic vegetables basket to registered families of Belgaum City. In 2004 Organic Food Club got registered as NGO having 25 organic farmers as producing members in total 107 acres. He has certified his products and export to international markets.

Gangavati Jola

Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since many years



Characteristics : 8-10 ft height, 4.5-5 months crop

Identifiability : Resistant to lodging

Culinary use : Jola is good for making Roti, Mudde, Ambali, etc and good fodder yield

Prasanna Paddy

Distinctness : Dryland paddy grown under semi arid condition

Characteristics : Medium tall, Early maturity

Identifiability : White coloured, medium fine grain

Culinary use : Non sticky after cooking



BANNESHAPPA MITAGAR

At : Mugalihal, Tq : Khanapur
Dist : Belgaum
Phone: 9901508155



Banneshappa Mitagar : He owns 4 acres of land the main crops he grows in his farm are 1 acre sugarcane, 3 acre paddy with mixed cropping groundnut, cowpea, beans, chilli, tomato, brinjal.

Dodgya Bhatta

Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since 300 years

Characteristics : 4-5 ft height, 15-25 Tillers, 120-130 days crop

Identifiability : Resistant to lodge, Resistance to grain shattering

Culinary use : Rice is used to make Pop, Poha and good for making Roti

BORE GOWDA

Shri Kamadhenu Samste
Shivalli village and post
Tq & Dist : Mandya Pin - 571 405
Mob : 9986381167



Mr. Boregowda brought Kanada thumba variety as a single earhead from one of the farmer's field and has improved this variety on his farm for the last five years.

Kanada Tumba :

Distinctness : If chemical inputs are fed in excess lodging is caused (at earhead emergence stage). The yield is constant with or without application of chemical Fertilizers.



Characteristics : Grows upto a height 4 - 4.5 feet, Crop duration is 120 days (from nursery)

Identifiability : The grain is long and strong like Basumathi

Yield : Expected grain yield 20-25 quintal per acre. Good fodder yield

Culinary use : Makes tasty poha

He has conserved 27 varieties and the major varieties are:- Rathnachoodi, Gowrisanna, Chinnaponni, Mysore Mallige, Raja Bhoga, Masoori.

BHIMANNA NARASINGANAVAR

At : Lokur

Tq & Dist : Dharwad

Phone: 9902682210



Total land holding 260 acres. Asia's largest joint family with 180 members living under one roof. Grows green gram in 70 acres, soya bean 25 acres, groundnut 20 acres, karigundi nandyal jola 12 acres, tur dal 6 acres, maize 40 acres, 35 acres wheat, bijaga, bengal gram 50 acres, rabi crops - 30 acres beli jola, sugar cane 13 acres, 2 acres tomato, cotton 40 acres

Kari Gundi Nandyal Jola

Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since 400 years

Characteristics : 15-18 ft height, 5.5 - 6 months crop

Identifiability : Resistant to lodge

Culinary use : Jola is used for making Roti, Mudde, Ambali, Papad, etc and good fodder yield

UAS Dharwad has recognized as a variety and multiplying and marketing by brand name as `Kalagunda jola`



CHINNAPPA BUDIHAL

At Post : Jantli Shirur
Tq : Mundargi, Dist : Gadag
Ph : 9886018261



A family of 23 members. He owns 72 acres of land. 15 acres of Kharif groundnut (balli shenga), 2 acres of kharif sorghum - Nandyal jola, 10 acres of onion, 20 acres of local chilli, 7 acres of wheat, local variety and jave godhi, 11 acres of rabi sorghum - Karigundi gundutene jola, 2 acres of rabi bengal gram, 1.5 acres of vegetables.

Dodda Jola

Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since 200 years

Characteristics : 12-15 ft height, 5.5-6 months crop

Identifiability : Resistant to lodge

Culinary use : Jola is used for making Roti, Mudde, Ambali, etc and good fodder yield



Kari and Bili tene Aralina Jola

Distinctness : Rabi, Resistant to disease and pest, drought tolerant. Conserving since 150 years

Characteristics : 8-10 ft height, 5.5-6 months crop

Identifiability : Resistant to lodge

Culinary use : Jola is used for popping and good fodder yield



DIVAKAR GOUDA

At Post : Itagi, Tq : Huvina Hadagali
Dist : Bellary, Mob: 9449410149



Divakar Gouda owns 40 acres of land. He grows sunflower in 13 acres, sorghum in 3 acres, beli jola in 6 acres in the rabi season, wheat in 2 acres, karikadli in 2 acres, maize in 4 acres, oilseeds in the rest of the farm. He grows jedara and bokda cotton in 12 acres.

Jedara cotton

- Distinctness : Rabi crop, Resistant to pest and disease, drought tolerant
- Characteristics : White in colour, Less input, Rich in oil content, Seeds are hard
- Identifiability : Easy to separate the cotton from the seed
- Yield : Yield is about 2.5 -3 quintal per acre, Nutritious fodder variety
- Uses : Widely used as pooja material



Bokda Cotton

- Distinctness : Both Kharif and Rabi crop, Resistant to pest and disease, drought tolerant
- Characteristics : White in colour, Less input, Rich in oil content, Seeds are hard
- Identifiability : Easy to separate the cotton from the seed
- Yield : Yield is about 2.5 -3 quintal per acre, Nutritious fodder variety.
- Uses : Widely used as pooja material



B. K. DEVA RAO

Ameyi Mane, Killur Post,
Belthangadi Taluk,
Dakshina Kannada District, Pin: 574214
Tel: 0825 6202409 Mob:9448287051



Mr. Deva Rao has conserved 55-60 varieties of paddy. Every year he grows 40 local varieties of rice without compromising on quality like Kayame, Raj Kayame, Suggi Kayame, Gandhasale. He also grows some of the hybrid varieties through sustainable agricultural practices such as Shakthi.

Kayme

- Distinctness : Popular variety of Coastal region of Karnataka
- Characteristics : Tall growing variety, withstands heavy rainfall, crop duration is three and half months
- Identifiability : Moderate grain
- Yield : Kayame gives very high yield among the local varieties. Good fodder yield
- Culinary Use : Popularly used for boiled rice



JAGANNAATHA SALIMANI

At: Mugalihal, Tq : Khanapur,
Dist : Belgaum,
Mobile: 9980013054



An agricultural family of 22 members. Total land holding is 40 acres. He grows paddy in 10 acres. Hakkala karisali Bhatta, Mahadodgya, Karkaldodgya, Indrani, Kumuda etc. He grows sugarcane in 4 acres, sunflower, turdal, rest is vegetables.

Hakkala karisali Bhatta

- Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant, Conserving since 300 years
- Characteristics : 4-5 ft height, 15-25 Tillers, 90-100 days crop
- Identifiability : Resistant to lodge and grain shattering
- Use : It is medicinal rice with good taste.

LINGAMADIAH

Nisargs farm, Taluk - Allasandra,
Dist - Channaptna,
Mob : 9449231760



"Using 10gms of seeds in the plot I got only 12 seeds to germinate. My friends laughed at this. They said I was wasting my time. In 18-19 days only 1 seed gave 20 tillers. I removed the tillers separately and sowed them in another area. Then I continued replanting and got One kg pure seeds. In one acre of land I got 36 quintals. There was no pest or disease attack. I named it the Mysore Mallige".

Mysore Mallige

- Distinctness : Resistance to pests and diseases, Low water requirement, Resistance to grain shattering, Sturdy stem
- Characteristics : Medium height, Lodging resistance, High tillering capacity / plant, Grows under minimum manuring conditions, Suitable to delayed sowing, 120 to 130 days duration, Chaffyness is very low
- Yield : 110 measures (seru) of grain weigh equal to 1 quintal,
- Husking : 20% (80kgs rice /qt of paddy)
- Culinary use : Rich taste



MALLESHAPPA BENACHAMARADI

Po : Hebballi,Tq & Dist : Dharwad



He owns 40 acres of land, he grows Nandyal jola in 10 acres, 16 acres of bengal gram, 10 acres of rabi wheat, 8 acres of rabi sorghum, 8 acres of cotton (Jedar, Varalakshmi), in the rest of the farm he cultivates oil seeds and vegetables.

Kari gondi gattitene Jola

Distinctness : Rabi, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since many years



Characteristics : 10-12 ft height, one tiller with black earhead, 140-150 days crop, Resistant to lodge

Identifiability : Grayish colour grains small in size.

Yield : Good grain and fodder yield

Bili gondi gattitene jola

Distinctness : Rabi, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since many years



Characteristics : 8-10 ft height, white compact earhead, 140-150 days crop

Identifiability : Resistant to lodge, Grains small in size and more in numbers

Yield : Good grain and fodder yield



Nandyal Jola

- Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since many years
- Characteristics : 9-11 ft height, 150-160 days crop
- Identifiability : Resistant to lodge, Fine grain pale yellow outer and white inner colour, Good fodder for livestock
- Culinary use : Good taste and aroma, softness on cooking



Amruth Godhi

- Distinctness : Rabi, Dryland, Resistant to disease and pest, drought tolerant. Conserving since many years
- Characteristics : 90 days crop
- Identifiability : Rich in gluten content
- Culinary use : Very good for value added products such as vermicelli, parade, sauthe beeja, gullaaddaki unde etc



Bijaga godhi

- Distinctness : Rabi, Dryland, Resistant to disease and pest, drought tolerant. Conserving since many years
- Characteristics : 90 days crop
- Identifiability : Rich in gluten content
- Culinary use : It is used for preparation of macroni and other bakery products.

MUKAPPA POOJAR

Po: Chinnikatti,
Tq : Byadagi Dist : Haveri,
Ph: 9980679824



He is a small farmer with land holding of 2 acres. He grows ragi same, maize, sorghum and vegetables. He is the director of Minchu Akshya Krishikara Balga seed bank.

Unde Ragi

- Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since 200 years
- Characteristics : 4-5 ft height, 45-75 Tillers, 4.5-5 months crop
- Identifiability : Resistant to lodge and grain shattering. This crop is particularly grown in `Guli method of cultivation`
- Culinary use : Ragi is used for making Roti, Mudde, Ambali, Papad etc

RUDRAPPA JULPHE

At : Hulyal, Tq: Jamakhandi
Dist : Bagalkot, Ph : 9901615773



Rudrappa Julphe owns 15 acres. He grows banana in one acre, turmeric in 1.5 acres, sugarcane 2 acres, wheat and brinjal in the irrigated land. He grows sorghum in the rainfed land. He also grows maize. A big family of eleven members.

Sadaka Godhi

Distinctness : Rabi, Resistant to disease and pest, drought resistant. Conserving since many years

Characteristics : 4-5 ft height, 100-110 days crop

Identifiability : Resistant to lodge

Culinary use : It contains digestive fiber and Dhalia made out of it is used for diabetic people.



Holisal badane

Distinctness : Summer crop

Characteristics : Medium height vigorous growth

Identifiability : The fruits are big weighting upto 1 kg per fruit. Once it grows upto 1 kg then only seed formation starts. It will grow upto 2 kg each fruit.

Yield : Good yielding perennial variety



RENUKA BENGALORE

At Post : Kamadhenu,
Tq : Kalaghatagi
Dist : Dharwad,
Ph : 9900282662



She owns 4 acres of land, she cultivates yanagar jola, thurdal and diverse variety of vegetables.

Yenigar Jola

- Distinctness : Rabi, Resistant to disease and pest, drought tolerant. Conserving since 50 years
- Characteristics : 8-10 ft height, 5.5- 6 months crop
- Identifiability : Resistant to Lodge
- Culinary use : Jola is used to make Roti, Mudde, Ambali, Papad etc and good fodder for animals



SHANKAR HANUMANTH LANGATE

At Po: Gundenatti, Tq: Khanapur
Dist:Belgaum, Ph:9972150378



Shankar Hanumanth Langate owns 6 acres of land. He grows paddy in 3 acres which is the main crop. He grows many indigenous varieties like Karihakkala Sali, Dodagya, Navali Sali, Kaka Sali, Kari Doddi bhatha, Indrani, Salem Sanna, Dodda bhatha. The rest of the land is devoted for sugarcane and vegetable cultivation.

Gijivili Bhatta

- Distinctness : Kharif, irrigated, Resistant to disease and pest, drought tolerant. Conserving since 300 years
- Characteristics : 4-5 ft height, 15-25 Tillers, 130-145 days crop
- Identifiability : Resistant to Lodge and grain shattering
- Culinary use : It is an Aromatic rice and rich in iron (farmer believes so)

SIDDANNA CHANDKI(BIRADAR)

At Po:Bidarakundi,
Tq: Muddebihal, Dist:Bijapur.
Ph:9982896265



He own 22 acres of land. 10 acres for Bidarkundi Chandki jola, 10 acres of Bengal gram, Kempu godi, oil seeds.

Bidarkundi Chandaki Jola

- Distinctness : Rabi, Resistant to disease and pest, drought tolerant. Conserving since many years
- Characteristics : 6-7 ft height, 5.5- 6 months crop
- Identifiability : Resistant to lodge
- Culinary use : Jola is used for making Roti, Mudde, Ambali, etc and good fodder yield

UAS Dharwad has recognized as a variety and multiplying and marketing by naming it as 'Bidarkundi Chandki Jola'



SHRENIKARAJ YALAVATTI

Po: Chinnikatti, Tq : Byadagi
Dist : Haveri
Ph: 9980679824



Shrenikaraj Yalavatti is an organic farmer belonging to Chinnikatti, Haveri District. He is also a member of the Chinnikatti Seed Bank. He owns 35 acres of land. He grows paddy in six acres. The remaining land is left for jowar, ragi, same, cotton and vegetable crops. He hails from a large joint family of 70 members with 35 members involved in farming in Chinnikatti.

Budda Bhatta

- Distinctness : Kharif, Rainfed, Resistant to disease and pest, drought tolerant. Conserving since 300 years
- Characteristics : 4-5 ft height, 25-35 Tillers, 120-130 days crop
- Identifiability : Resistant to lodge, Resistance to grain shattering
- Culinary use : Rice is used to make Pop, Poha and good for making roti

VENKANNA MUDAREDDI

At Po : Nalodi, Tq : Navalagund
Dist : Dharwad, Ph:9980709366



Venkanna Mudareddi, is a dynamic farmer belonging to Nalodi in Dharwad district. Venkanna owns 54 acres of land. His main crop is red chillies grown in 25 acres. He also grows wheat, jowar, bengal gram during the rabi season. He grows cotton along with onion and chilli as a mixed crop.

Muguti Jola

Distinctness : Rabi, Resistant to disease and pest, drought tolerant. Conserving since many years

Characteristics : 6-7 ft height, 110- 120 days crop

Identifiability : Resistant to lodge

Culinary use : Jola is used to make Roti, Mudde, Ambali, etc and good fodder yield

P. R. KRISHNAPRASAD

Address - 2770, Sri Krishna Mahal,
5th Main road, V.V. Mohalla ,
Mysore -2, Mob: 9449130841



A perennial brinjal tree which is not fully high yielding, but also resistant to diseases and cost effective and high remunerative, continuous fruit bearer throughout the year was developed. This tree is developed through grafting and keeps bearing throughout the year for many years. Using grafting 2 varieties has been developed.

1. Tall Tree Type (PRK - 1 or Karthik Raksha)

It has potential to grow to a height of about 15-20 ft. At present it is 10' tall bearing heavily and continuously, which is 1 year and 10 months old. The yield potential may range from 25,000 to 60,000 kg/ Acre/year - 900 to 1200-plants/ Acre. It is resistant to bacterial, fungal wilts and nematodes.

2. Bushy Type (PRK - 2 or Anugocori)

It has potential to grow to a height of 6 to 8 feet, with a life span of 6 to 8 years. The yield ranges from 10,000 to 50,000 kgs/Acre/year - 2000 plants/acre.



**NATIONAL AWARD
WINNERS**

NIF NATIONAL AWARD WINNER IN PLANT VARIETIES

Name - **K.J. Baby** (National First)

Innovation - White flowered cardamom variety.

Address - Puliyanmala, Idukki, Kerala

Details - He has developed a white flowered variety of cardamom, which has higher yield, oil content and recovery ratio than the locally popular varieties. For the first time, he observed a white flower plant in his cardamom garden which he had never heard or seen and so he isolated it and multiplied it by vegetative propagation.

Name - **Mr. P.N. Suruliver** (National Third)

Innovation - PNS VAIGAI (vazhukka) - A new cardamom variety

Address - Theni, Tamil Nadu

Details - He has developed and propagated a variety of cardamom having the qualities of high

productivity, large sized capsules and high growth rate. His wife who has been quite observant pointed out two plants that outperformed others in the field. He noted the quantitative and qualitative traits of these plants such as growth, yield and resistance to pests, diseases and abiotic stress viz, drought tolerance, water logging aroma, oil content, etc. over the next five years

Name - **Sabu Varghese** (state award)

Innovation - Wonder cardamom - a new variety of cardamom

Address - Idukki, Kerala

Details - He has developed a drought resistant cardamom variety that he calls 'wonder cardamom'. This variety can also be grown in rubber plantations at lower altitude. The specialty of the variety is that it has branched

panicles. While dabbling with cardamom, he observed one plant be morphologically distinct from other plants. This plant was tall and bore numerous long tillers, branched panicles and also the size of its capsules was significantly bigger.

Name -**Bala Sahib Patil** (state award)

Innovation - New Gram variety 'Sushil Laxmi'

Address - Kolhapur, Maharashtra

Details - He has developed a high yield dual poded gram variety, which is more stable under both irrigated and rain fed conditions and has better fodder yield than the locally popular varieties. He making various crosses using 110 flowers (male and female each) pods was obtained in only 12 cross combinations and out of these one combination yielded dual pods/axils. He selected that plant and continued to multiply and observe the same for few years.

Name -**Thakarshi bhai Savaliya** (state award)

Innovation -High yielding groundnut variety 'Moralo'

Address - Junagadh, Gujarat

Details - The new variety of groundnut 'Moralo' developed by him is known for its sweetness, high yield and resistance to 'Tikka' disease. While weeding he noticed two plants that were greener, leaves were thicker and the branches were longer. They bore more flowers and bore a large no. of pods/kernels. These plants stored as seeds and sowed these seeds separately. He also found that this variety had a tendency to spread in width as it grew.

Name - **Manaram Chaudhary** (state award)

Innovation - Improved onion variety

Address - Sikar, Rajasthan

Details - He has developed an early maturing and less water dependant variety of onion through selection. He observed that the plants from the

white bulb were early maturing and yielded well in comparison to the crop from red coloured onion even under water stress and low irrigation conditions. Keeping this in mind while harvesting, he preferred to keep the white coloured onion for seed to the red/pinkish ones. He stabilized the characters over a period of ten years by performing repeated selection.

Name - **Raj Kumar Rathore** (consolation)

Innovation - Richa 2000 perennial pigeon pea variety

Address - Sehore, Madhya Pradesh

Details - He developed a perennial pigeon pea variety having a bushy growth and good yield. Seed harvested from the selected plant were sown. He observed that the plants bore very few branches and hence tried cutting the top a day prior weeding to facilitate better growth, to restrict further vegetative growth and enhance branching. Six branches emerged as a result. He repeated the practice of clipping/topping twice

and observed that total of 12 - 14 branches emerged from that plant. He repeated this for three crop season.

Name - **K.T. Varghese** (consolation)

Innovation -An improved disease resistant variety of pepper - Kumpukkal

Address - Peermade, Kerala

Details - This variety has stable yield, high oil content and pungency than the local varieties. He had severe incidence of quick wilt in his pepper crop and to his surprise only five - eight plants could survive the incidence. He propagates the remaining plants through vegetative propagation (buds), to which he consented.

Name - **Prakash Singh Raghuvanshi**
(consolation)

Innovation -Improved varieties of wheat, paddy and pigeon pea

Address - Varanasi, Uttar Pradesh

Details - He developed numerous high yielding varieties of wheat, paddy and pigeon pea.

Name - **Mr. Mahavir Singh Arya** (Appreciation)

Innovation - Improved varieties of wheat and mustard

Address - Churu, Rajasthan

Details - His keen observation and tremendous hard work, he has today developed numerous varieties of wheat and mustard. He crosses two varieties he had, T 59 and Golden. The result was a new mustered variety, which was named Sundari.

He crossed a tall. High yielding local variety of wheat with a variety Sonalika he was already using. In the first generation he observed the plants were taller, had hold grains and were resistant to disease. Year after year he developed a variety 'Mahavir Kiran Mahan'

Name - **Mr. Rejimon Joseeph and Mr. Sebastian Joseph** (National First)

Innovation - New cardamom variety - Njallani

Address - Njallaniyil House, p.o. - Kattappana, dist.- Idukki, Kerala

Details - Sebastian with the help of his son Rejimon, developed a new cardamom variety 'Njallani' by selecting good berries and cross pollinating these. This variety could be multiplied by clonal propagation method.

Name - **Mr. C. Rajendran** (National second)

Innovation -New paddy variety - Chinna Ponni

Address - Back side of Krishna Theatre, Thatham patti, p.o. - vadipatti, dist. - Madurai, Tamil Nadu

Details - He developed a variety by selection which is excellent drought tolerance, resistance to pests and disease and gave higher yields.

Name - **Mr. Dhulabhai Punjabhai Patel** (National third)

Innovation - New variety of pigeon pea - G.D.P-1

Address - vill - Gadha, taluk - Modasa, dist - Sabarkantha, Gujarat

Name - **Mr. Jagdish Prasad Pareek** (National third)

Innovation - A cauliflower variety - Ajitgarh selection

Address - Ajitgarh, taluk - Sawai Madhapur, dist - Sikar, Rajasthan

Details - This variety gives upto 12 kg. cauliflower and can with stand hot temperature variations. It is disease resistant and less susceptible to insect attack.

Name - **Mr. Tom C. Antony** (consolation)

Innovation -New nutmeg variety

Address - Cheripurathu, p.o. - Chengalam, Kottayam - 686585, Kerala

Details - He has done patch budding in nutmeg by budding scion of nutmeg to the stock of wild forest variety.

Name - **Jose Madhavath** (consolation)

Innovation -Propagation of pepper

Address - Andoor, Marangattupilly, Kottayam - 686635

Details - The cuttings of pepper planted in polythene. By the beginning of monsoon, it is replanted in the field. When it attains two feet height, it is cut at 1.5 feet and the pepper is budded on to it. This portion is covered with plastic and with in one month the wound will heal. The resultant plant is resistant to dreadful disease of quick wilt.

Name - **Mr. K.R. Duraisamy** (consolation)

Innovation - Crossing in coconut trees

Address - Krishnapuram, p.o. - Elumathur, Erode
- 638104, Tamil Nadu

Details - He developed hybrid coconut tree by crossing tall and dwarf coconut varieties. The planted seedlings will start yielding within two years.

Name - **Mr. Rajabhai Ghusabhai Harkhani**
(consolation)

Innovation - Grafting in lemon

Address - vill- Mandva, taluk - Bhesan
Janagadh, Gujarat

Details - He developed a variety of lemon which is seedless and has no thorns. He did a crossbreeding of lemon flowers with orange flowers. To the resulted hybrid plant and then crossed 'bijora' flower and sowed the resulting hybrid seeds.

Name - **Mr. Roy Scaria** (consolation)

Innovation - High yield plantain of banana

Address -Parappad house, p.o.- Palankara,
Karulai via, Nilamboor,

Malappuram, Kerala

Details - He has developed a new variety of banana by crossing two dwarf varieties of banana viz. Robesta and Morris. This hybrid variety bears upto 300 bananas, weighting around 60 kg. and gets matured within two and a half months.

Name - **Mr. Laljibhai Ramjibhai Murani**
(consolation)

Innovation - ' ADARSH - 8' - A new variety of
sesamum

Address - p.o.- Samdhiyala, taluk - Upleta,
Rajkot - 360490, Gujarat

Details - He has identified and propagated a new variety of sesamum having 6-8 lines as against four in the ordinary ones.

Name - **Shri Abraham Mathew** (national second)

Innovation - New nutmeg variety with larger and heavier fruits - Kadukkamakkan Jathi

Address - Kadukkamakkan house, post - Kallanode, via, Kakkayam, dist - Kozhikode - 673615, Kerala

Details - This variety is the result of systematic selection from the seedlings planted at Kallanode from a selection of seeds. This variety developed has large fruits.

Name - **Shri Narayan Bhatt** (consolation)

Innovation - Dwarf, high yielding arecanut variety

Address - Pelathadka house, post-Adyanadka-574260, Karnataka

Details - He crossed Heerehally dwarf (male) *Mohith Nagar (female) and also Mohith Nagar (male *Heerehally (dwarf). The nuts obtained were planted. He got dwarf, tall and medium height plants in F2. He removed tall plants and

selected dwarf and medium plants. Heerehally dwarf grows to 20 - 2 ft. bears one bunch and yields 100 - 150 riped nuts. He had crossed these two and developed a new variety that 20 - 25 ft. and yields an average of 400 - 500 nuts.

Name - **Shri Jay Prakash Singh** (consolation)

Innovation -New varieties of wheat, rice and pigeon pea

Address - village- Tadiya, post - Dadhorpur, Javirnce, Rajatalab, district- Varanasi, Uttar Pradesh

Details - He developed new varieties of wheat like Dollar, Mahesh, Safed Baal Dana, JP 61,33,64,52 and T - Hindustan.

Name - **Shri Jitabhai Kodarbhai Patel** (consolation)

Innovation - New variety of hyacinth bean

Address- village - Vetla, taluk - Vadali, district - Sabarkantha, Gujarat

Name - **Shri Alibhai Abhvani** (consolation)

Innovation - Resham patto - New chilli variety

Address - village - Sarmat, taluk & district -
Jamnagar - 361005, Gujarat, Phone - 89366
89487





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