

Mainstreaming Indigenous Fruits & Vegetables for food & nutrition secure future (Perspectives: India)



सत्यमेव जयते
Government Of India

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Webinar for International Year for Fruits & Vegetables,
Organized by: Govt. of India & FAO Regional office in India
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Indian Agriculture has made Rapid Progress since Independence

What we achieved in food grains and horticulture (Base year 1950-51 to 2020-21)

- 6 times Food grains (50 to 306 million ton)

Green revolution, 2nd Green revolution: Food Self sufficiency

- 13 times Horticulture (25 to 331 million ton)
- 2014-15 (280 million ton) 49 million ton more

Silent revolution took place: Nutrition & Health



INTERNATIONAL YEAR OF
FRUITS AND VEGETABLES

2021

Horticulture Scenario in India

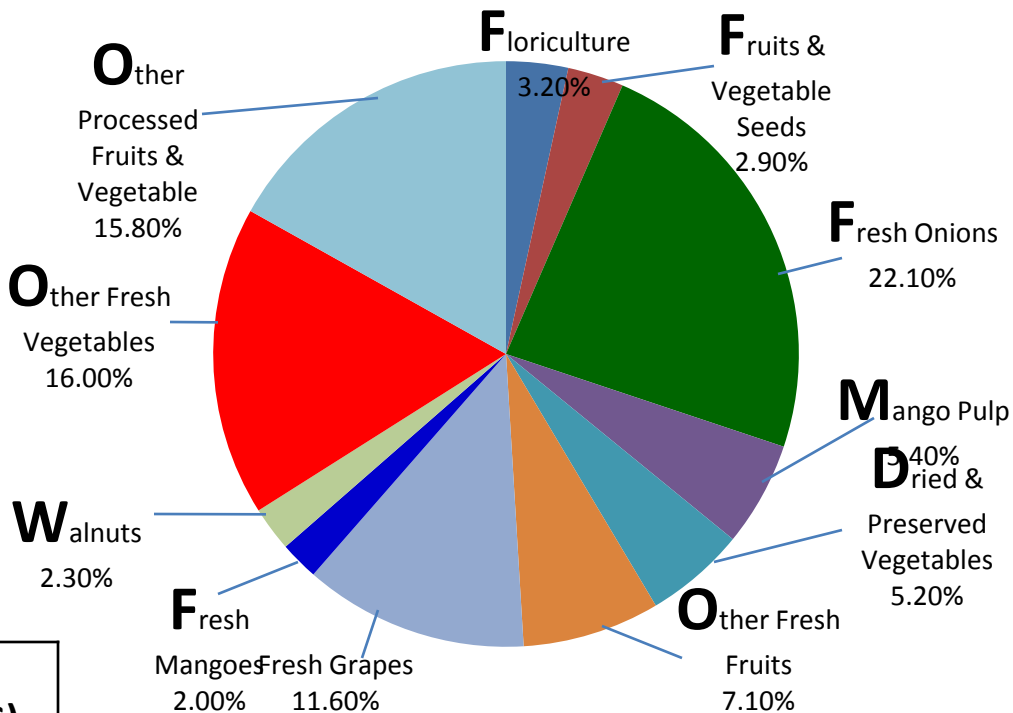
- India is 2nd largest producer of fruits & vegetables in the world.
- India's share in the world production of fruits and vegetables stands at 11.38% and 11.78% respective.
- Horticulture: Area 27.23 million hectare, production 331 million ton.
- Largest producer: Mango, Banana, Guava, Papaya, Lemon & Lime, Okra in the world.
- Second largest producer: Potato, Tomato, Onion, Cabbage, Cauliflower and Brinjal in the world.



India: Major exporter during pandemic.....



India today is the 5th largest and fastest growing vegetable seed market in the world worth Rs. 6 billion.



Horticulture Items	Export value (Million US \$)
Fresh fruits	674.53
Fresh Vegetables	661.61
Floriculture, Fruits & Vegetable seeds	186.63
Processed fruits, pulps, juices, beverages, Cocoa products	4987.76
Processed vegetables including Cucumber & Gherkins	
Total	6510.53

EXPORTS (2020-21)
 worth 6510.53 million US\$
 Rs. 47463 crore

Promotion of Exotic and Indigenous Crops

- Identified 10 globally popular exotic fruit crops of commercial importance.
- Identified 10 important Indigenous fruit crops with high nutritional and nutraceutical properties.
- State Horticulture Missions have been given targets for area expansion during 2021-22.

S. No.	Exotic Fruit crops	Niche Fruit crops
1.	Avocado	Aonla
2.	Blue berry	Karonda
3.	Dragonfruit	Seabuckthorn
4.	Fig	Garcinia
5.	Kiwi	Jamun
6.	Mangosteen	Hanuman Phal (Soursop)
7.	Persimmon	Bael
8.	Passion fruit	Tamrind
9.	Rambutan	Phalsa
10.	Strawberry	Jack fruit

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fruits.nafed.in

Select Language

Promotion of Niche, Exotic and Indigenous Fruits
कृषि एवं किसान कल्याण मंत्रालय
MINISTRY OF AGRICULTURE & FARMERS WELFARE
Government of India



Dragon Fruit

Exotic and Indigenous Fruits

Key Technologies: Transformed horticulture

- Hybrid seeds of vegetable crops
- Plant architecture & engineering
- Root stock technology & trellis system
- Accredited Nurseries
- Drip and sprinkler systems and fertigation (13 million ha)
- Greenhouses technology (Polyhouse, shadenet, low tunnel, mulching)(130 thousand ha)
- Biopesticides & biofertilizers (825 thousand tons)
- Micro-propagation and tissue culture in plant production
- Integrated cold chain

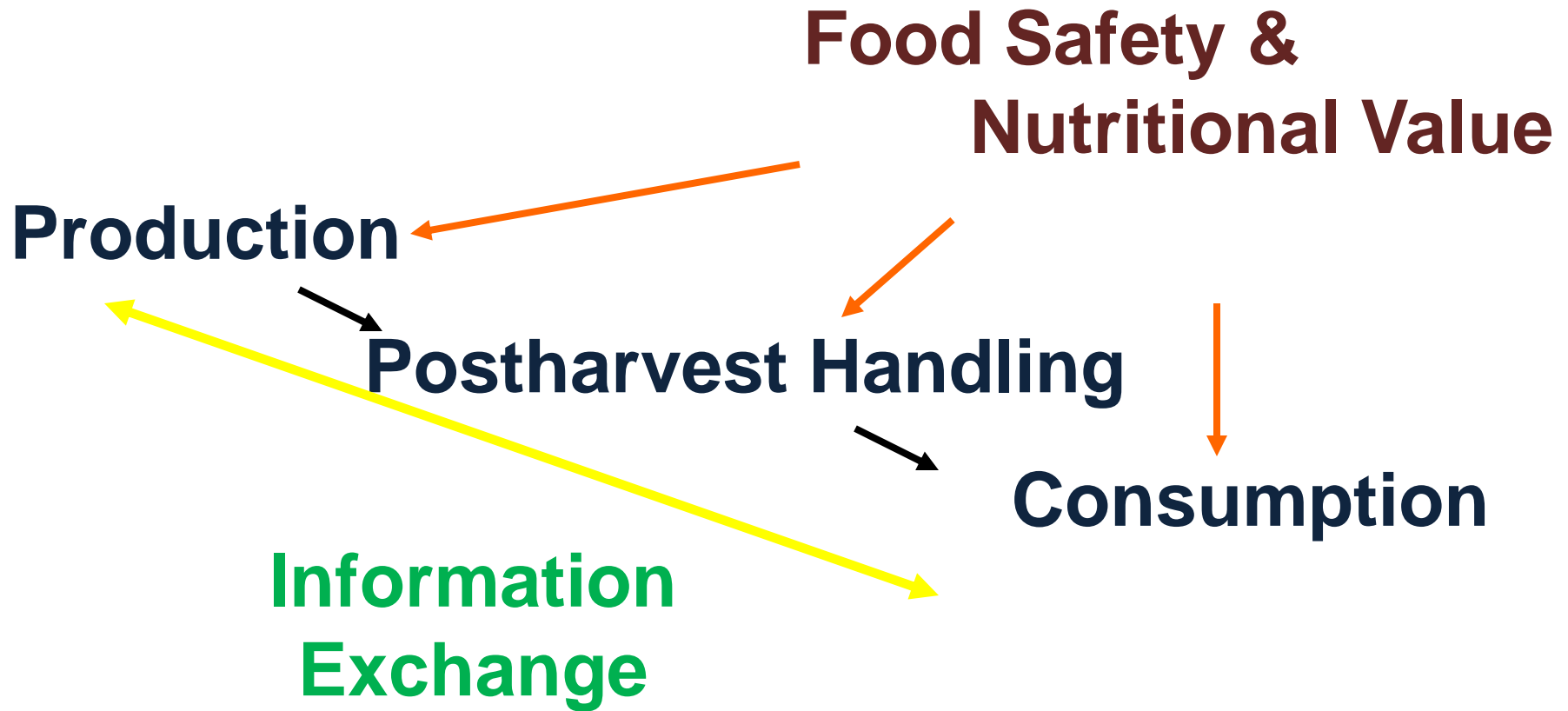


DESHACKLERS

- Back up of Technologies
- Development Initiatives
- Policy Support



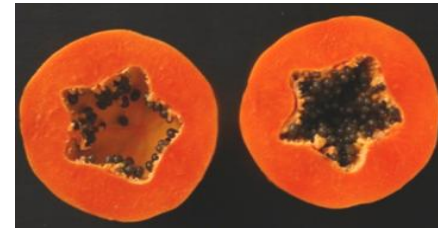
High Production achieved but Safe Value Chain is in focus?



IMPROVE NUTRIENT CONTENT?

➤ By the Appropriate production system

➤ By Plant Breeding

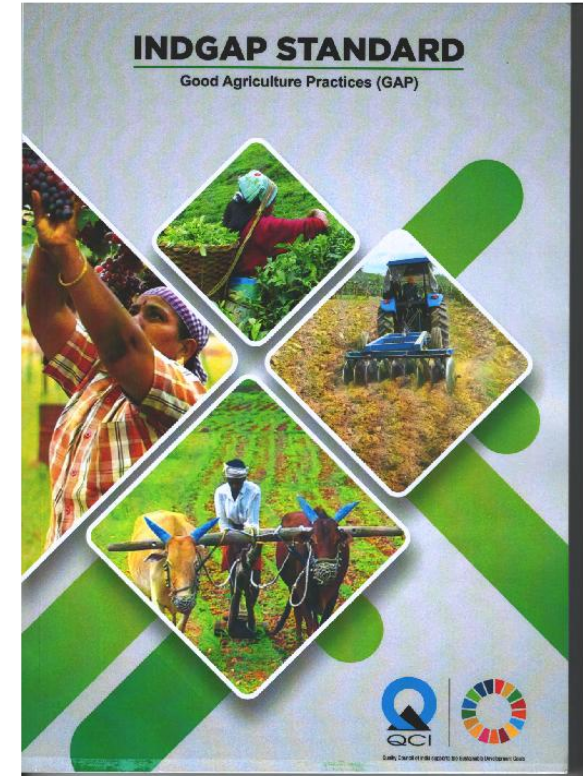


NEW MOLECULES: NEW PESTICIDE CHEMISTRIES & INTEGRATED PEST MANAGEMENT

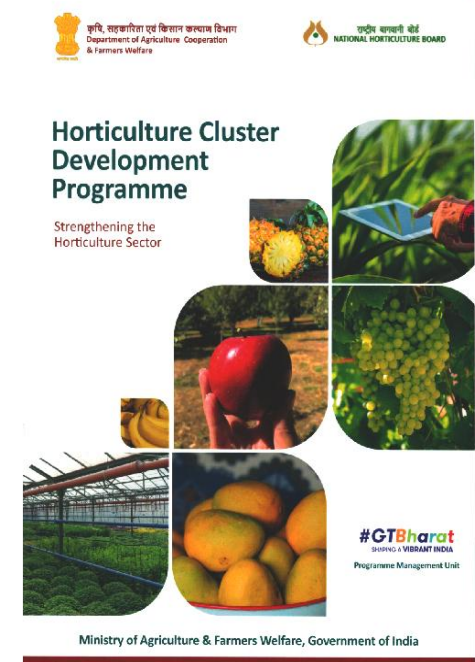
- **Crop Grouping concept:** Label claim expansion for related crops in groups.
- **Biopesticides: 13**
Trichoderma, Beauvaria, Verticillium, Pseudomonas, Bacillus, Metarhizium, Paecilomyces
- *5 lakh MT traded 143 million US\$*
- **Environmentally safer pesticides :**
 - Polyoxin (fungistatic)
 - Spinosad (insectide- Lepidopterean)
 - Spinetoram (Thrips, caterpillar, ball worm)
- Gossylure: Pheromone : Mating disruption

Own certification system- IndGAP ?

- Safe, healthy and quality food from farm to fork
- Traceability, Environmental protection
- *Certification of production* to ensure sustained supply of quality produce.
- Common minimum standards for India GAP benchmarked with GlobalGAP
- **India took lead in development of WHO-FAO CODEX standards for AUBERGIN, OKRA, POTATO**



Horticulture Cluster Development Program



- **12 clusters identified**
- Shopian, Kinnaur for **apple**
- Sholapur, Chitradurga for **pomegranate**
- Theni, anantpur for **banana**
- Mehboobnagar, Kutch, Lucknow for **mango**
- Nashik for **grapes**
- Sepahijala for **pineapple**

- Increased productivity
- GAP
- Infrastructure development
- Multimodal transport
- Cluster brands
- Increase in investment by private sector
- Quantum for export

National Bee and Honey Mission



Honey Testing Lab inaugurated at Anand, Gujarat on 24 July, 2020 & 20 May 2021 at IARI Delhi

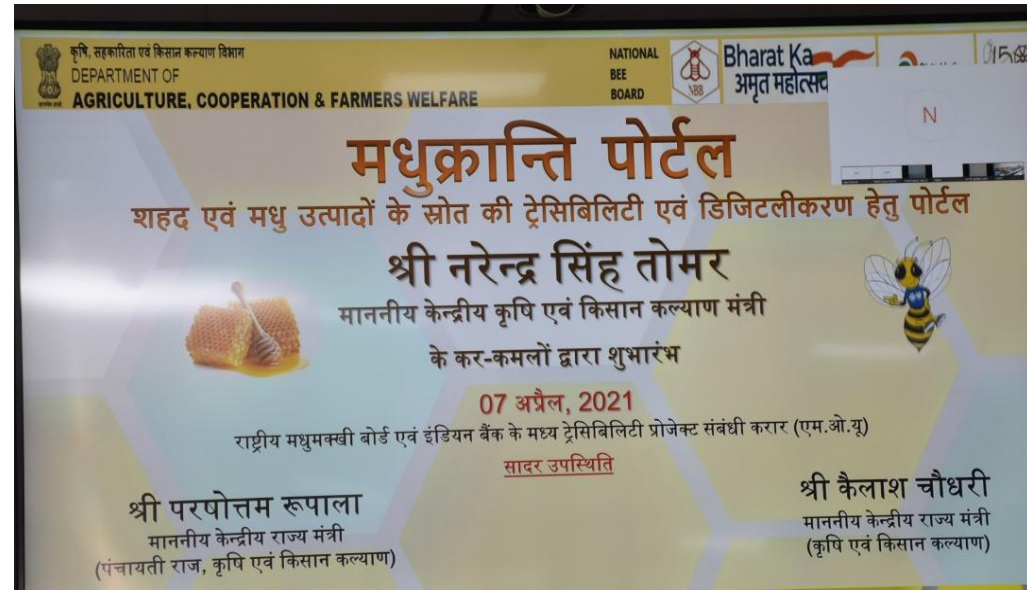


Regional labs: 5
Gujarat
Karnataka
IARI New Delhi

BhoomiPujan/ launching of Honey Processing Plant & other infrastructural facilities at Morena, MP sanctioned to NAFED by Hon'ble Union Minister of Agriculture & Farmers Welfare on 01.07.2021 under NBHM



Launching of MADHUKRANTI portal & Honey Corner



Launching of
MADHUKRANTI portal for
Traceability of Honey and
other beehive products on
07.04.2021



Perspectives to Look Upon



- **Expand the harvesting window - mainstream F&V even during offseason - increased availability**
- **Development of nutrient dense biofortified varieties to compete with mainstream- Studies on secondary metabolites**
- **Utilizing waste of large fruit drop for extracting nutraceuticals**
- **Considering perennial fruit crops as source of environmental services – as an alternative for carbon offset option**
- **Production epicenter based digitalized mapping for introduction in non-conventional areas – for crop suitability**
- **Utilizing microbial power for rhizosphere manipulation as resilience against ongoing nutrient mining as well as biocontrol for pests**

THANK YOU

- **India proposal accepted in UN General Assembly**
- **Next will be International Year of Millets-2023**

