Flourish with Flowers : The Indian Experience

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Lifestyle Horticulture

Global Lifestyle Horticulture : $ 286.7 billion

Global cut flower trade : $ 40.00 billion

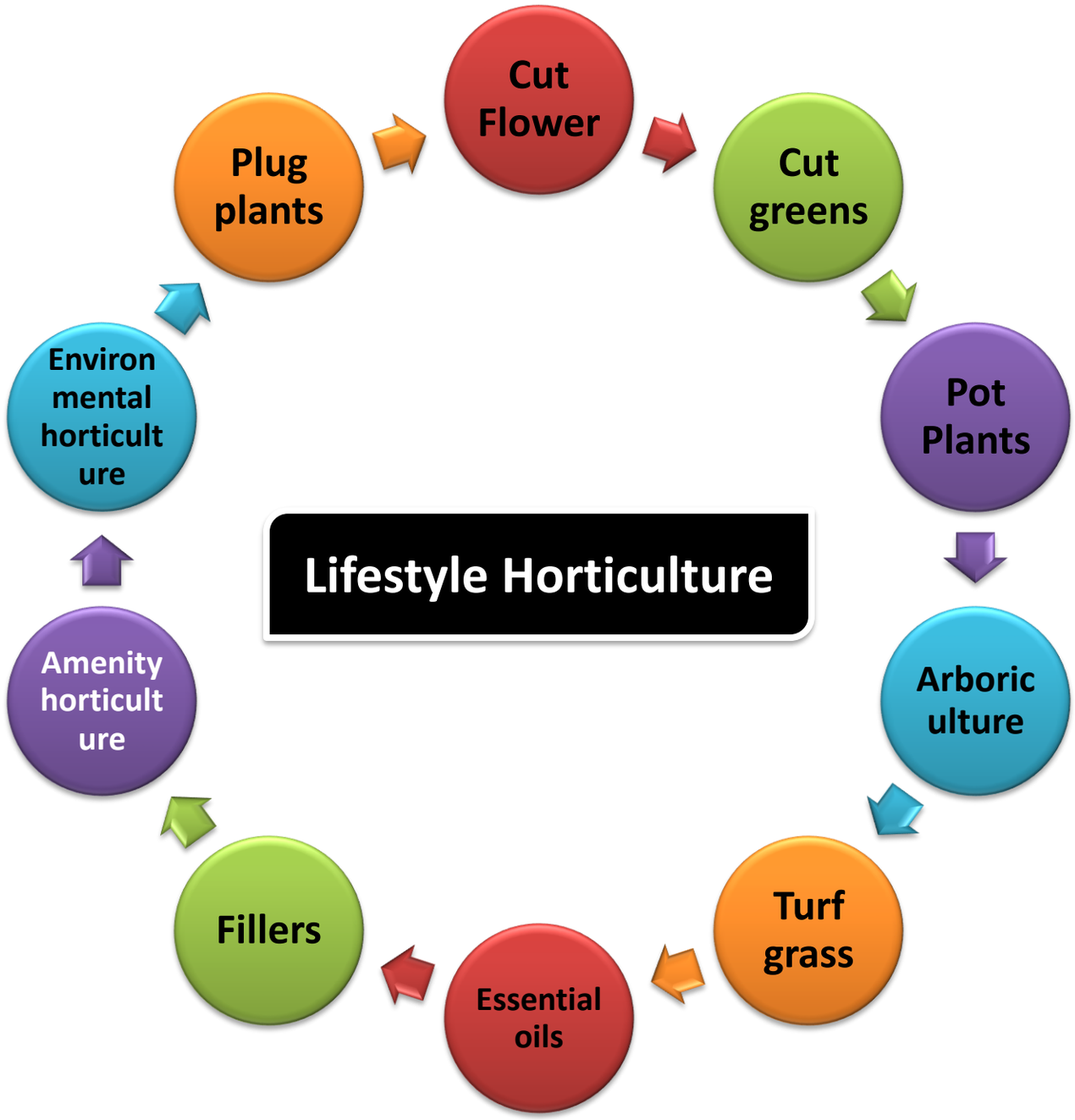
US ($ 129 Bn)

Japan ($64.8 Bn)

Germany ($ 23.2 Bn)

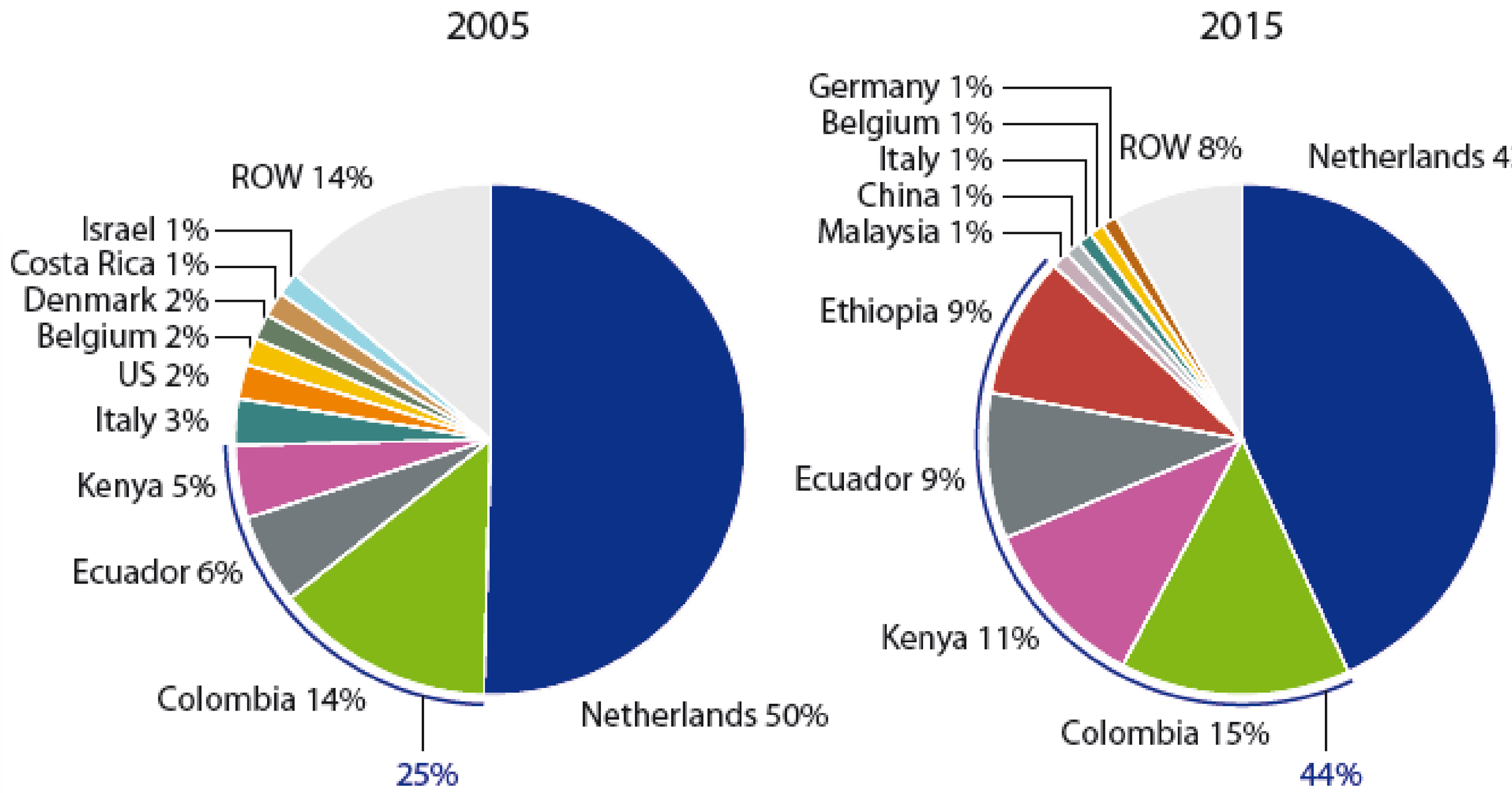
UK ($19.3 Bn)

Canada ($10.7 Bn)



Source: Floraculture International 2012

World Trade in Floriculture 2005 vs 2015

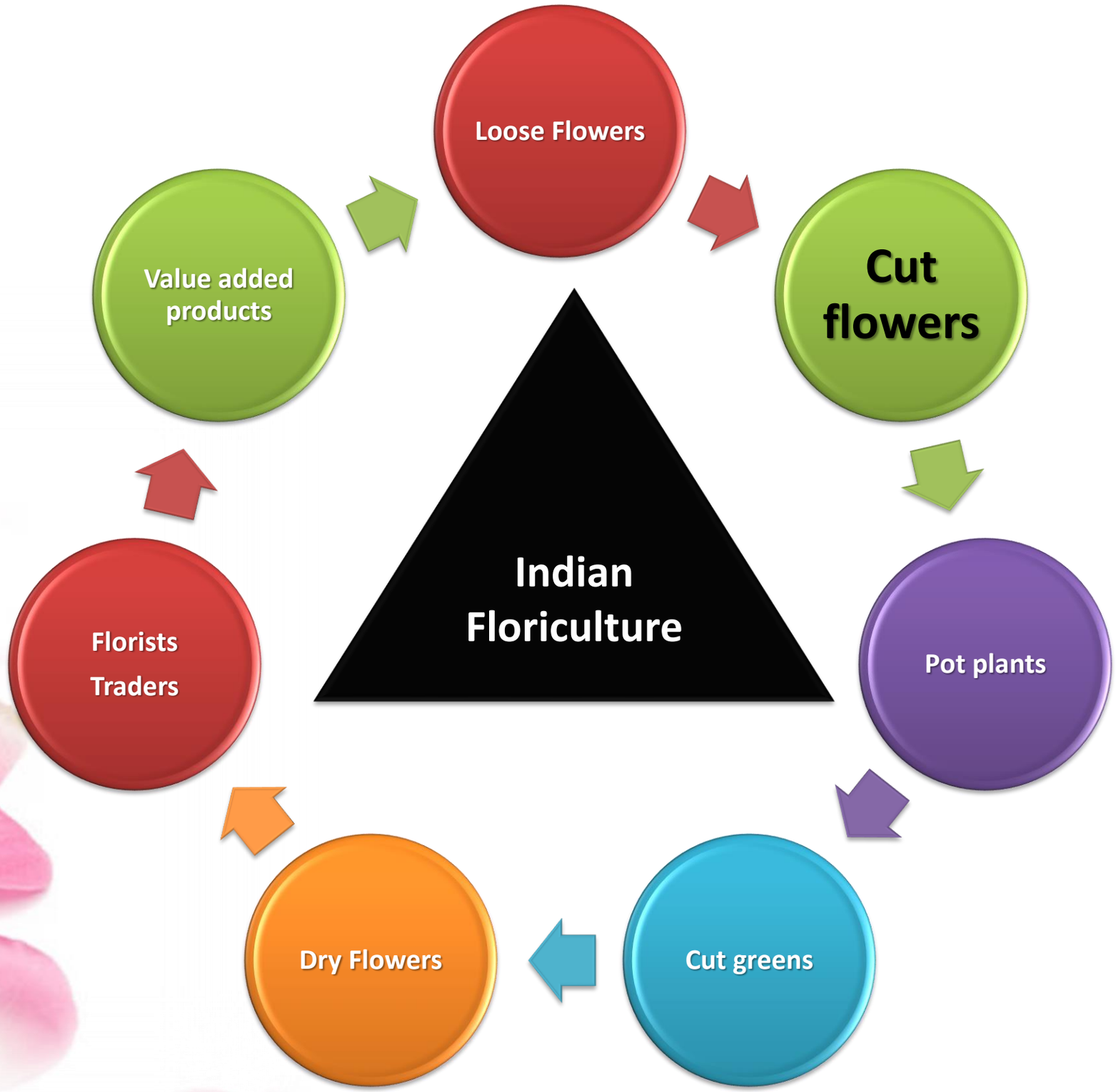


Sources: UN-Comtrade, Rabobank, 2016

Where India stands?

1. Contributes Rs. 460 crores, Which is 0.31% of the Global trade
2. Growth rate is impressive (7-8%)
3. Growth is recession proof
4. New avenues are emerging
5. Second largest in area
6. Festival /Wedding driven as against fashion driven

Indian Floriculture Industry



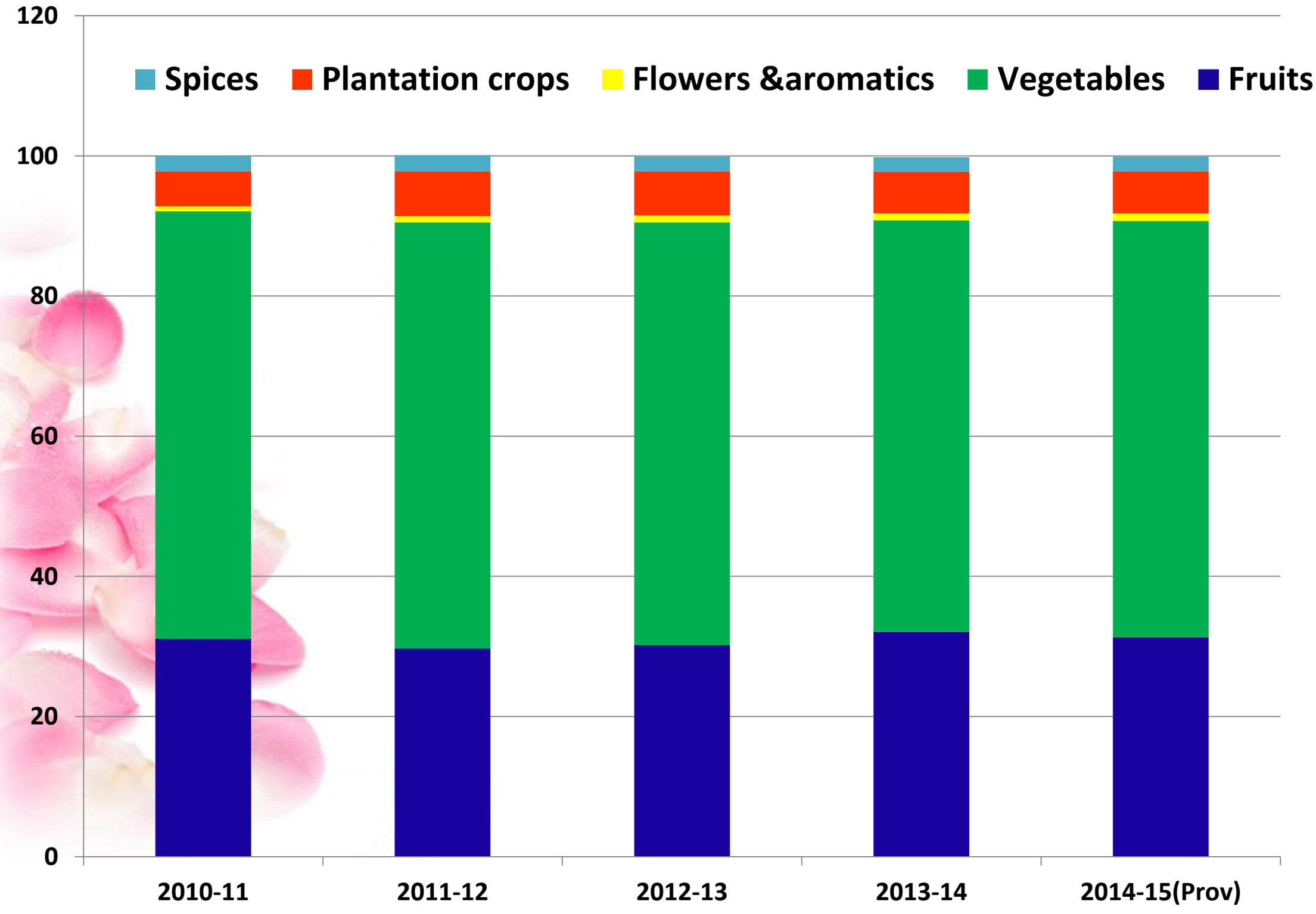
Indian Floriculture is traditional in nature

1.2 billion people are used to this way of floral usage

Floriculture practiced world over

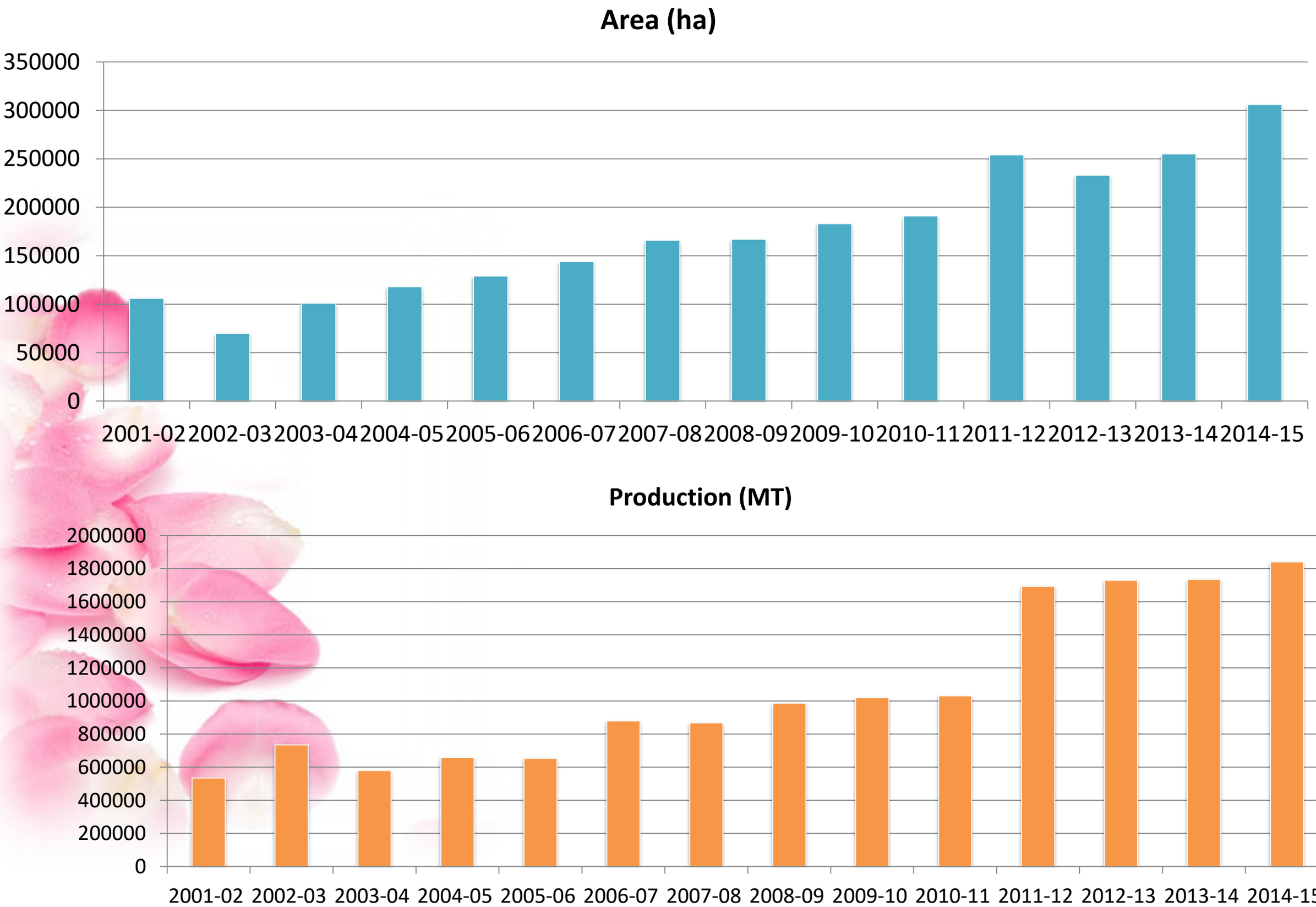
Nearly 6 billion people are used to this kind of floral usage

Percentage Share of Production of Various Horticultural Crops in Total Horticulture



Dynamics of Floriculture Industry

Area and Production Trends (Loose Flowers)

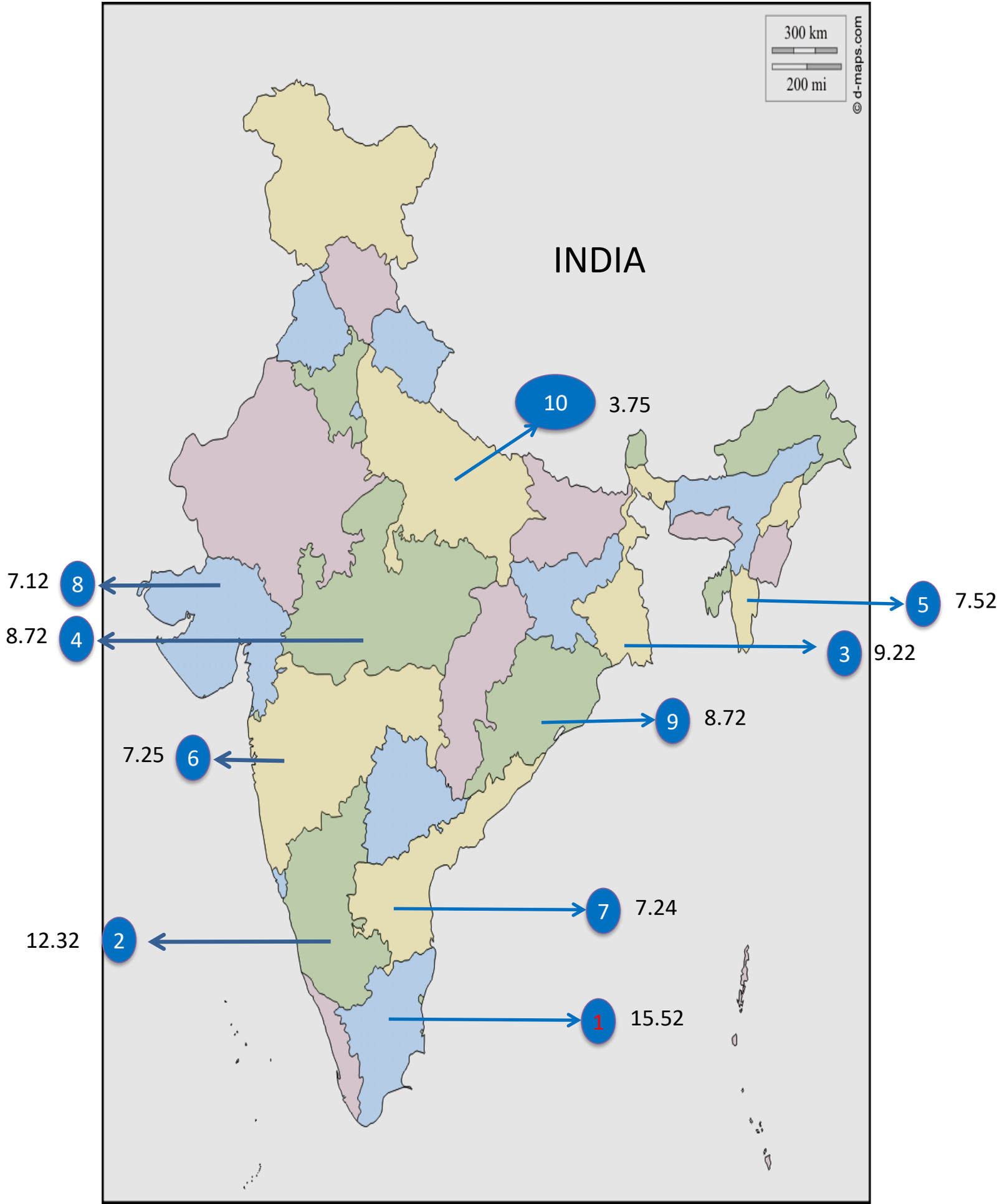


Annual Growth Trends in Area and Production

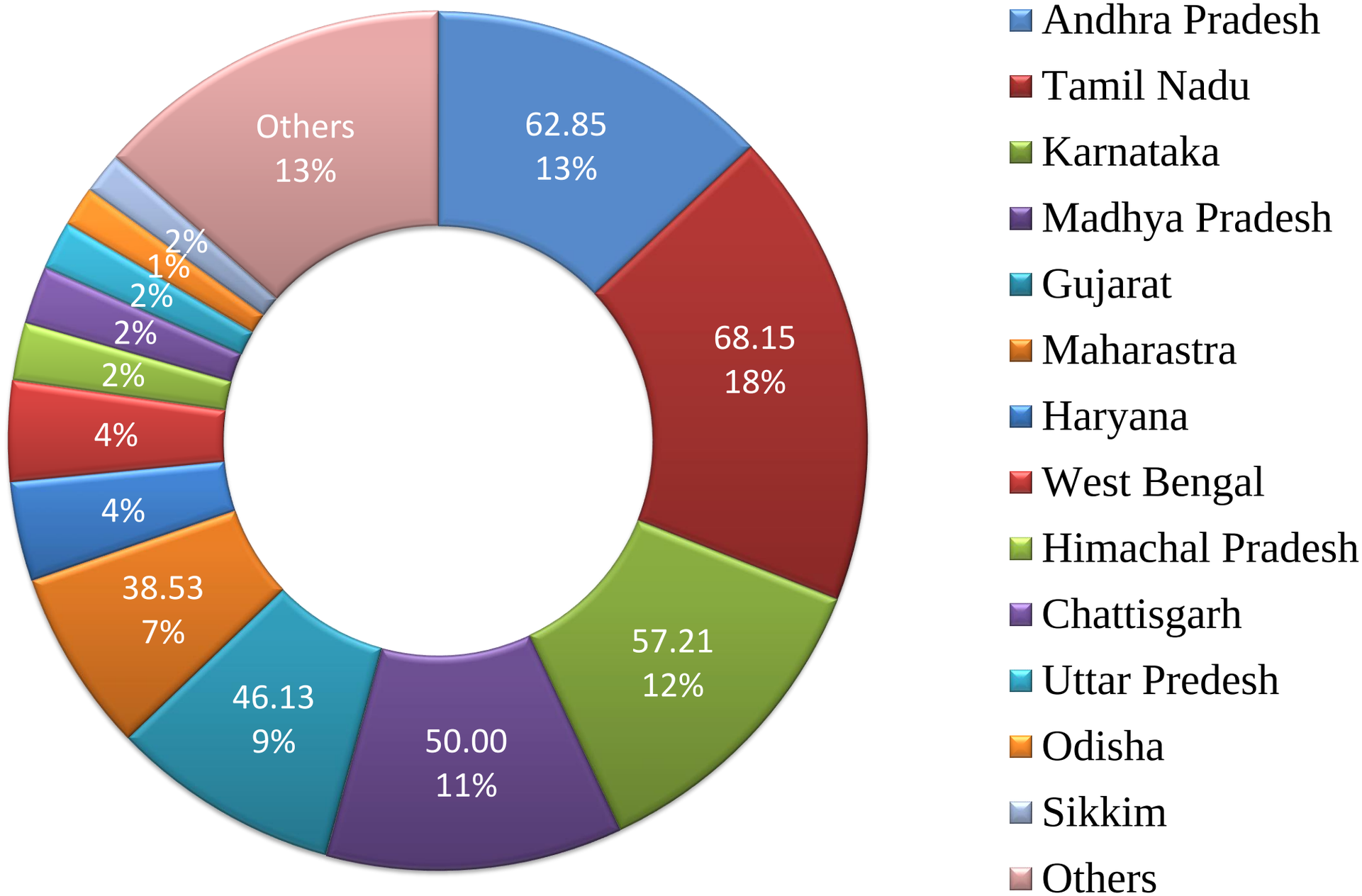
Crop	2010-11 Over 2009-10		2011-12 Over 2010-11		2013-14 Over 2012-13		2014-15 Over 2013-14	
	% increase							
	A	P	A	P	A	P	A	P
Floricultural crops	4.40	1.00	33.00	60.20	9.50	1.50	24.40	0.40

Horticulture Statistics Division, DAC&FW

Top 10 Flower Producing States (% share)

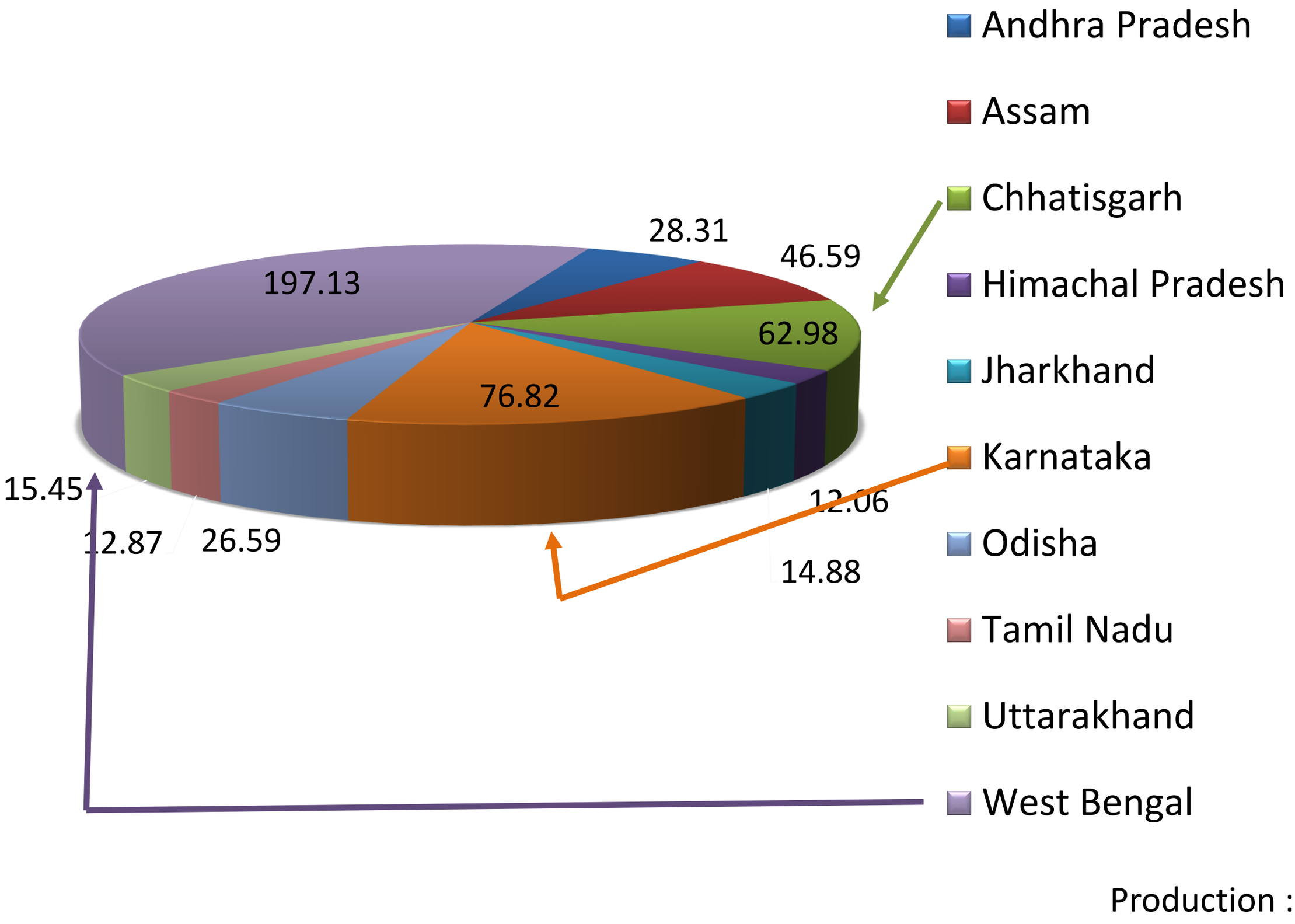


Leading Loose Flower Producing States in India



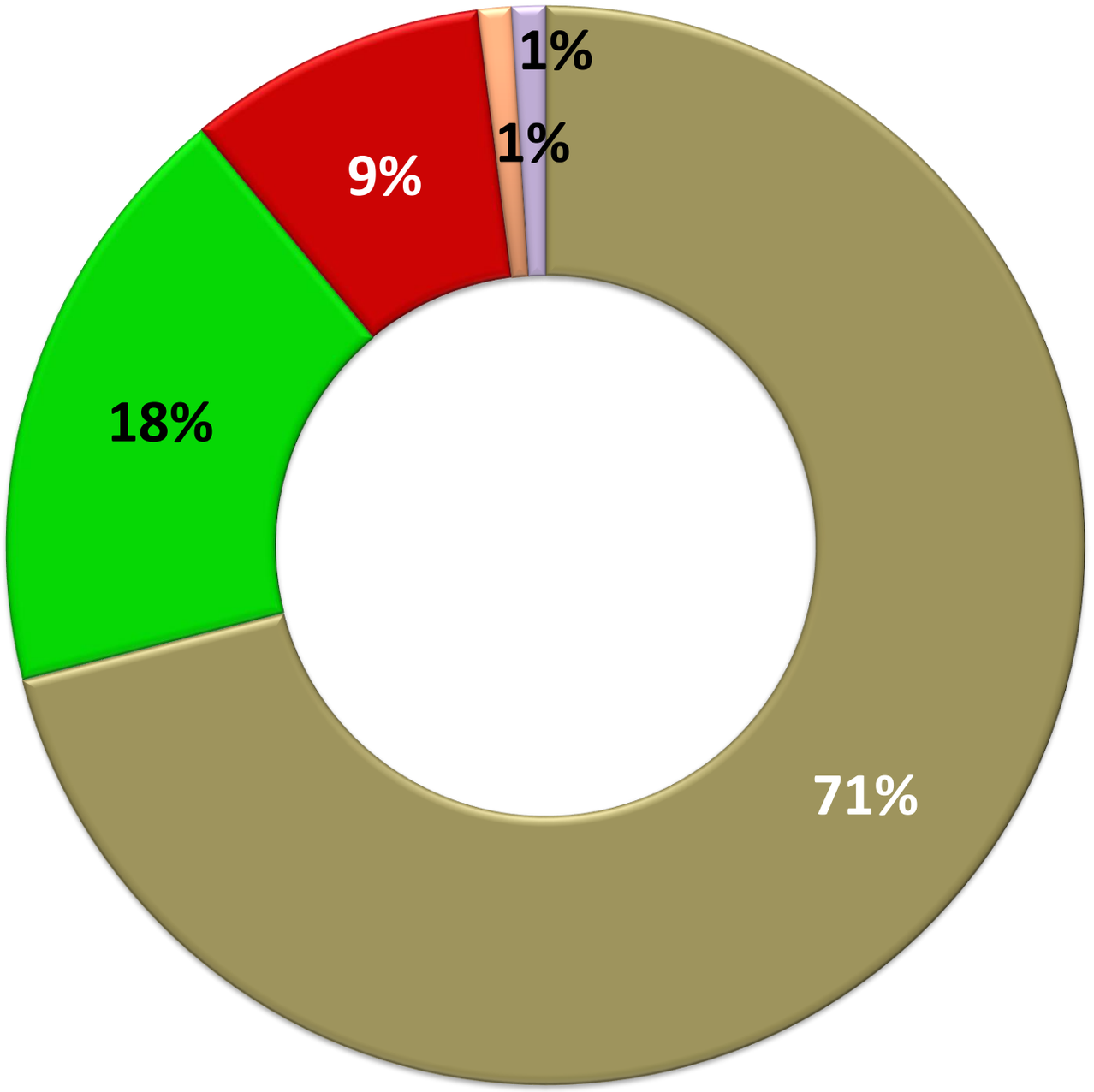
Production : 000 MT

Leading Cut Flower Producing States



Production : 000 MT

Export Basket of Indian Floriculture



Value : Million US$

Export Basket Comprises of

Bulbs, Tubers , Tuberous Roots	Plant For Tissue Culture
Bulbs Horticultural	Flowering Plants
Chicory plants	Other Live Plants
Other Bulb/Tubers	Live Mushrooms Spawn
Un-rooted Cuttings	Cut Flowers For Bouquet’s / Fresh
Edible Fruit Trees Grafted or Not	Other Cut Flowers For Bouquet’s
Cactus	Moosses & Lichens For Bouquet Fresh
Rhododendrons (Grafted Or Not)	Other Foliages / Buds For Bouquet Fresh
Roses Grafted Or Not	Foliages/ Branch / Buds Not Fresh

Source: DGCIS Annual Export

Export-India

Top 10 Importing Countries for Indian Flowers

Qty: kg
Value : US$

	2013-14		2014-15		2015-16	
Country	**Qty**	**Value**	**Qty**	**Value**	**Qty**	**Value**
United States	5,158.70	13052584	5,490.00	15142123	5,185.09	14934593
Germany	2,841.16	9148187	2,240.04	8559188	2,336.20	8783953
United Kingdom	2,583.87	8505739	2,557.24	9176917	2,197.52	8636012
Netherland	1,983.51	10207190	2,060.74	7907884	1,883.90	8590572
United Arab Emirates	1,026.05	2624702	1,582.65	3400972	1,499.63	4164959
Canada	567.78	2106634	856.16	2373784	945.88	2678799
Japan	727.07	2501697	608.91	2264079	421.97	2463385
Singapore	817.98	1404891	916.94	1647770	1,092.47	2063215
Australia	270.35	1537324	474.72	2250979	380.96	2053186
Italy	682.75	2056673	561.65	1863663	444.91	1752399
Total	**22,485.21**	**72365079**	**22,947.23**	**71995312**	**22,518.57**	**74909375**

Source: DGCIS Annual Export

Import of Flowers in India

Top 10 countries from where India imports flowers (Qty: MT, Value US$)

	2011-12		2012-13		2013-14	
Country	**Qty**	**Value**	**Qty**	**Value**	**Qty**	**Value**
Thailand	520.95	1617034	1,090.54	3368307	1,764.22	5901866
Netherlands	1,354.13	4050300	1,548.83	5130381	1,549.73	572442
China	473.71	1471995	443.7	1428791	275.18	1262150
Italy	28.74	175898	36.24	274648	82.86	49375
United Arab Emirates	39.55	290078	64.64	595587	41.92	484493
United States	55.45	336367	27.77	260762	35.06	458262
Spain	15.84	111093	29.81	191328	50.36	444375
United Kingdom	60.07	311680	21.04	288535	44.12	435118
Israel	15.3	217559	26.3	455176	28.88	308594
South Africa	12.47	46289	22.26	72519	44.26	256133
Ethiopia	6.01	40117.	11.7	98750	26.97	205215
New Zealand	19.03	72519	24.18	7714	51.62	205215
Total	**3,064.35**	10583243	**3,728.55**	13220182	**4,308.81**	1731214

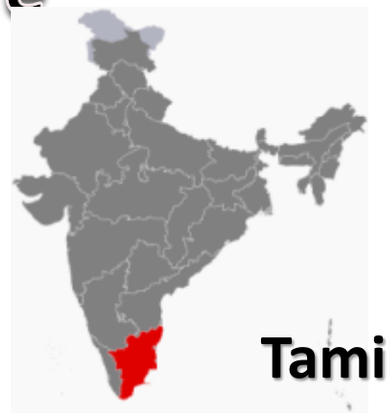
Initiatives for Promotion of Floriculture

Karnataka

Initiatives
Infrastructural facilities for Floricultural Development
Industry Status for Floriculture
Model Floriculture Centre (MFC)
Assistance for the Construction of Greenhouse and Shade Net house
Scheme for Export Promotion and Market Development
Model Floriculture Village
Assistance to Growers' Associations
Marketing Initiatives
Cargo Centre at Bangalore Airport
Floriculture Auction Centre
South India Floriculture Association (SIFA)

Maharashtra

Initiatives
Horticulture Planting Material
Micro irrigation
Farm ponds
Controlled cultivation
Contract farming /FPO/ producers company
Storage Facilities
Export facilities
Post Harvest Management :Packaging/ Branding/ Pack house
Marketing initiatives
Market Information Dissemination Introducing e-Trading Platform Atomization of working of APMCs Computerized Auctioning System (CAS) Interlinking of markets Virtual Market (VM)



Tamil Nadu

Initiatives
Integrated Horticulture Development Scheme (IHDS)
Horticulture Training Centres (HTC)
Hill Area Development Programme (HADP)
National Agriculture Development Programme
Precision Farming
Hi Tech Productivity Enhancement Programme
Establishment of District Horticulture Extension cum Training Centre
Mass Multiplication of Carnation Mother Plants in Nilgiris district
Development of infrastructure facilities at Horticulture Training Centre,

Initiatives for Promotion of Floriculture

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Plant Breeders Rights

Protection of Plant Varieties and Farmers Rights Act 2001

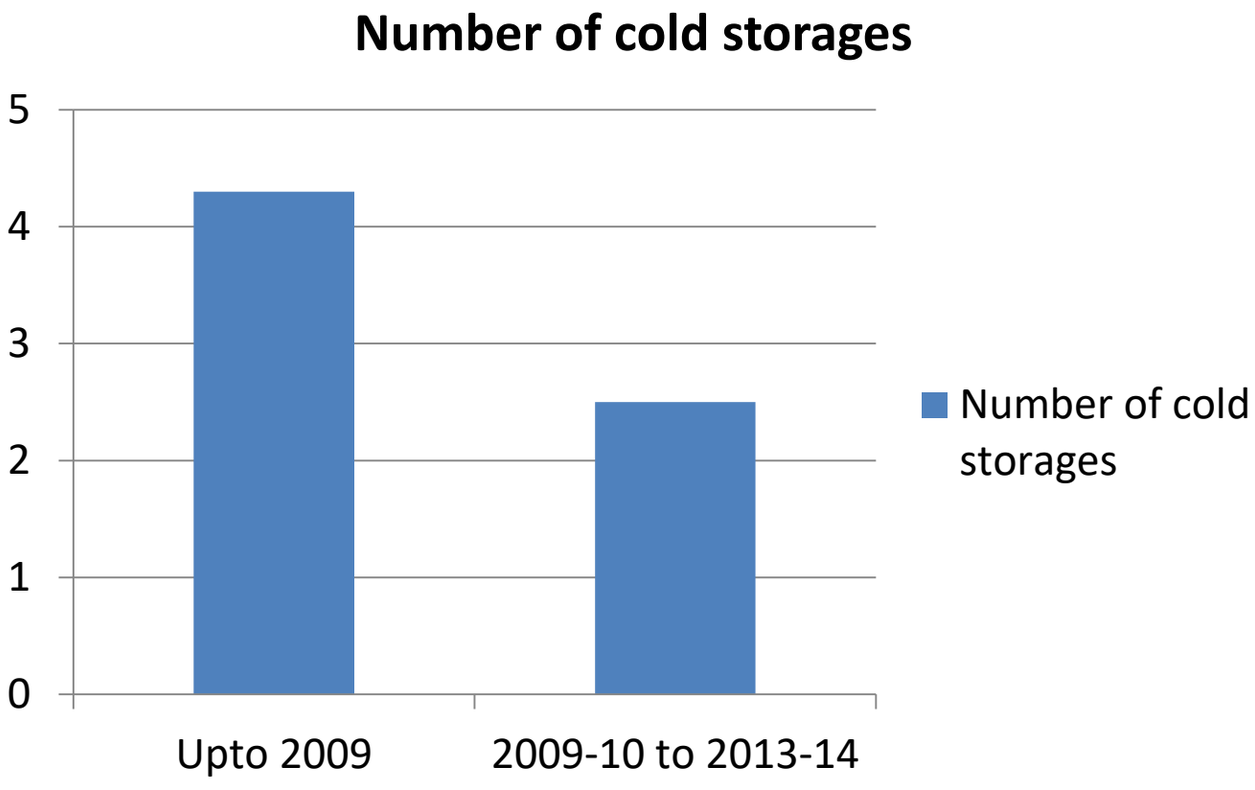
Protection of Plant Varieties and Farmers Rights Authority, New Delhi

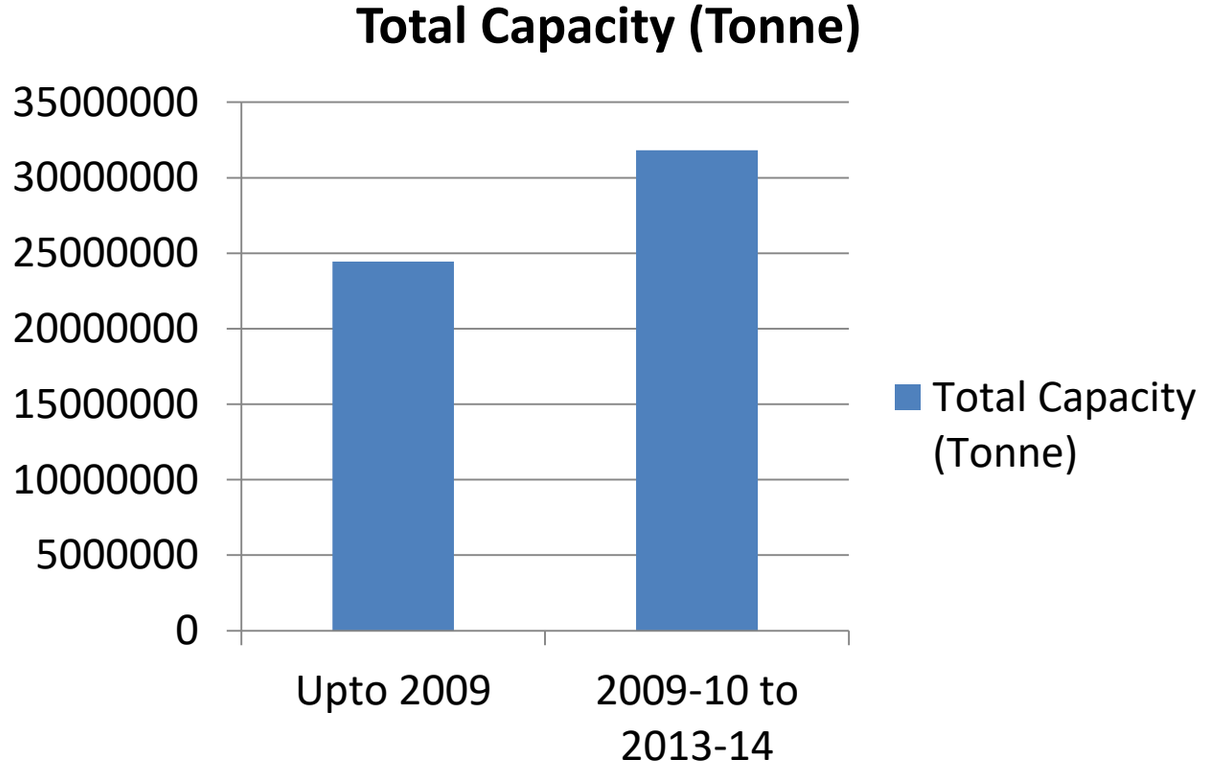
About 152 crops are notified and DUS guidelines are available

15 ornamental crops are notified

- **Rose (2)**
- **Chrysanthemum**
- **Marigold**
- **Crossandra**
- **Jasmine**
- **Orchids (4)**
- **Tuberose**
- **Carnations**
- **China Aster**
- **Periwinkle**

Cold Storage Infrastructure for Horticulture Commodities





Technology Backstopping in NARES

Fairly Advanced
Crop Improvement
Crop Production
Crop Protection
Post harvest management
Protected cultivation
Seed and Planting material
Dry flower technology
Micropropagation

Limited
Cut foliage
Fillers
New Flower crops
Landscaping
Turf Grasses
Specialty flowers
Pot plant production
Targeted Breeding
IPR in Floriculture

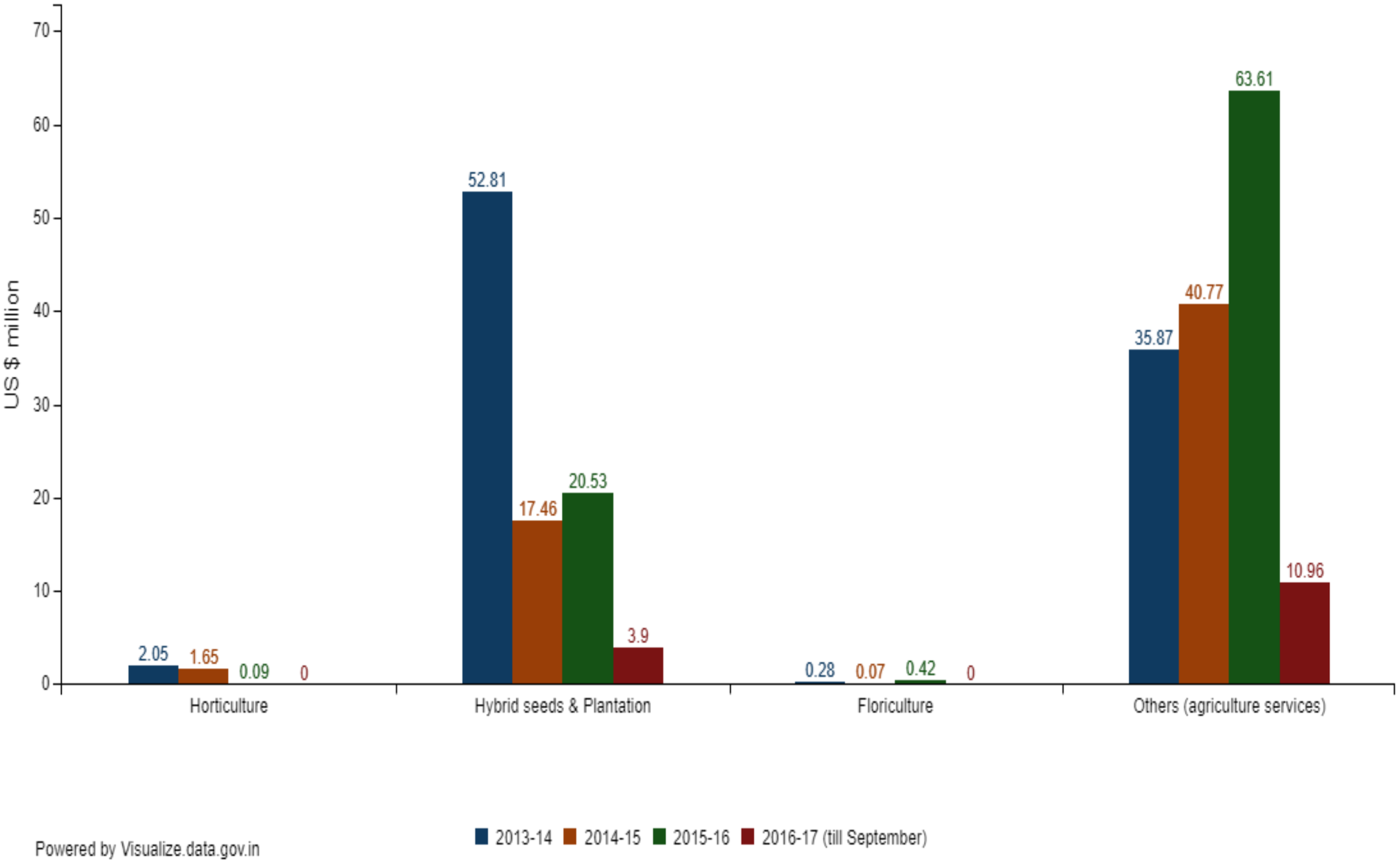
Limited
Biotechnology
Varieties for Export
Nematodes
Market Intelligence
Programmed Production of Flowers
Nanotechnology
Flower labels
Arboriculture

Technology Backstopping Research Priority

Priority I | **Priority II** | **Priority III**

Short term	Medium term	Long Term
Landscaping plants	Improving Ecosystem	Harnessing the pollinizers
Turf grass management	Organic Floriculture	Insecticide resistance in major pests
Pre-breeding and maintenance breeding	Micro-nutrient Management	Arboriculture
Indigenous flowers Endangered Flora	Essential oils & Aromatherapy	Molecular breeding
Nutraceuticals pigments	Temperate Floriculture	Nanotechnology
Vertical Gardening & Interiorscaping	Aquatic flowers	Quality standards
Alternate light sources in Floriculture	Urban Floriculture	
Packaging and Packaging Material	Quality Labels for International markets	
Problems of Nurseries	Floriculture in Pollution mitigation	
Mobile Based Apps	Diagnostics and dip sticks for Virus and phytoplasma	
Mechanization		

Sector wise FDI inflows in Agriculture of India from 2013-14 to 2016-17



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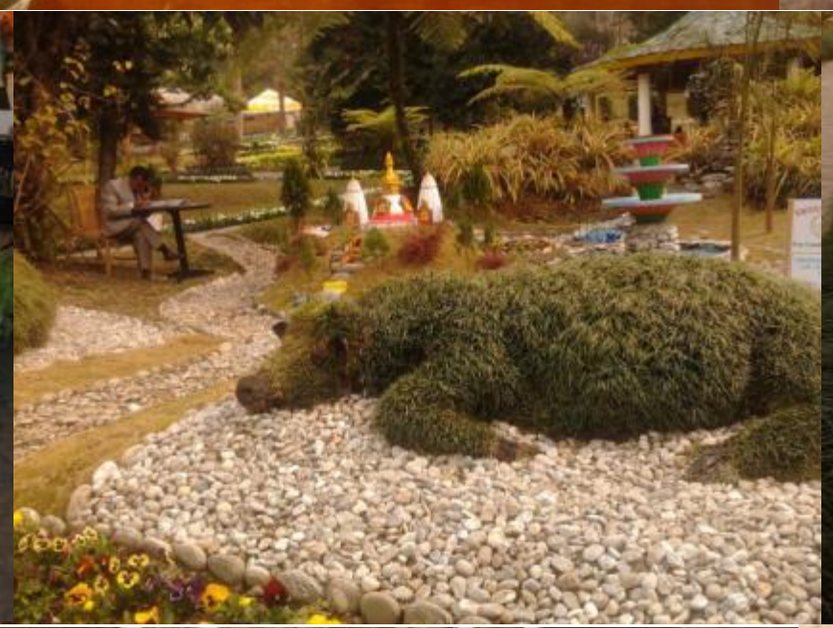
Nursery Accreditation Scheme



COMMERCIAL CULTIVATION OF FLOWERS

Greenhouse Liliums

Open cultivation of Liliums

Transport van Assisted by National Horticulture Board

धन्यवाद

谢谢

ありがとうございました

Thank you

Спасибо

Je vous remercie

gracias

شكرا

grazie

Danke

남쪽으로 고마워.

Asante

Area and Production of Aromatics and Flowers

Area in '000ha
Production in '000tonne

Crops	2012-13		2013-14		2014-15 (2nd Advance estimate)	
	Area	Production	Area	Production	Area	Production
Aromatic	557	918	493	895	499	926
Flowers						
Flowers Cut		518		543		502
Flowers Loose	233	1729	255	1754	317	1805
Total Flowers	233	2247	255	2297	317	2306

Varietal Wealth

Rose	**250**
Chrysanthemum	**150**
Gladiolus	**81**
Tuberose	**08**
Jasmine	**05**
China aster	**08**
Marigold	**04**
Crossandra	**02**
Gerbera	**02**
Bougainvillea	**40**
Hippiastrum	**02**

Priya

Arpita

Pusa Vidhushi

H.B.Singh

Pusa Centenary