



# Breeding, Production and Plant Variety Protection of Fruit Variety in Indonesia

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# Breeding Institution

## Breeding of Fruit Crop

1. Indonesian Tropical Fruit Research Institute (in Solok, Padang – West Sumatera)\*
2. Indonesian Citrus and Subtropical Fruit Research Institute (in Batu, Malang - East Java)\*
3. Indonesian Institute of Science
4. Tropical Horticulture Research Center
5. Mekar Sari Fruit Garden

\*Under the MOA

# Breeding Techniques

## Breeding of Fruit Crop

The methods of breeding for fruit crop in Indonesia

\* Mutation/Endosperm tissue culture /Culture in vitro

- manggis (garcinia)
- banana
- manggo,
- salak,
- avocado,
- atemoya,
- kepel

\* Crossing (hybridization)

- Jackfruit (interspecific hibridization)
- melon
- watermelon
- papaya

\* Selection local varieties

- durio
- averhoa

# Breeding Target Points

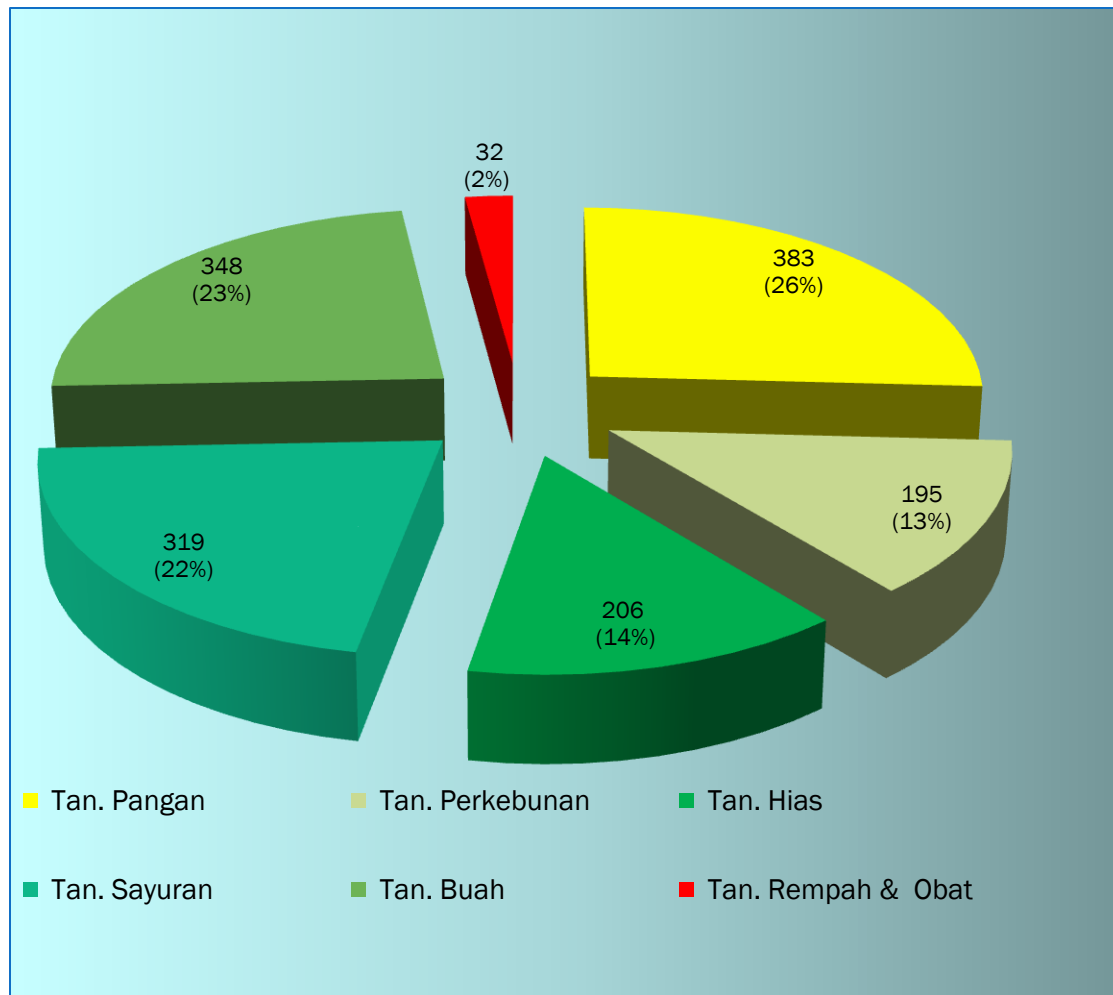
## Breeding of Fruit Crop

- Yield and productivity
- Resistance
- Adaptation
- Flowering phase
- Fruit quality (seedless orange, sweetness, skin color, etc)
- Mass seedling production

# Production of Fruit Crop

- Fruitmarket in Indonesia are dominated by imported fruit (ex. Apple, Pear, Kiwi, Grape etc); but
- Local fruit also have their own market and became strengthen as goverment policies for improving local variety and local variety registration.

## Graffic 1. Issuance Variety Registration (for national Listing) Based on Crop Year 2005-2014\*)



### Total 1483 varieties

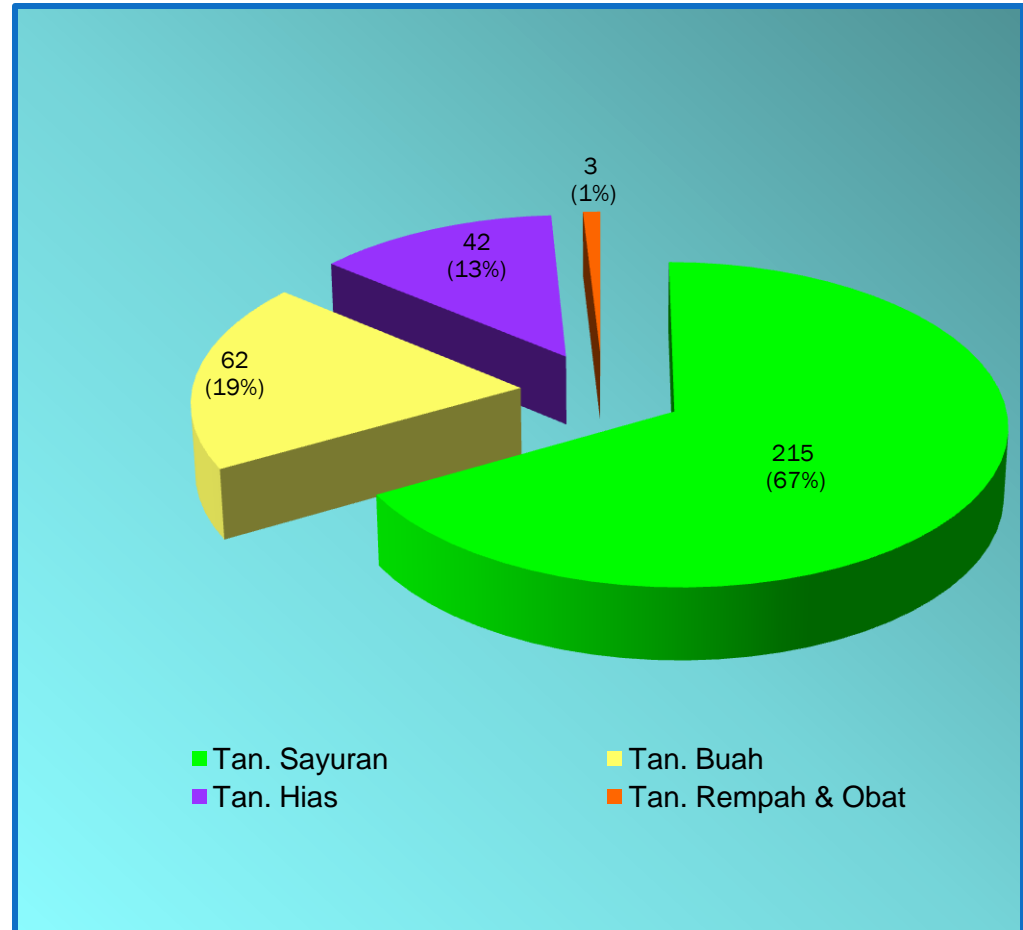
- 383 varieties (28%) from agriculture crop;
- **348 varieties (23%) from fruits crop;**
- 319 varieties (22%) from vegetables crop;
- 208 varieties(14%) from ornamental plants;
- 195 varieties (13%) from industrial crop;
- 32 varieties (2%) from medicinal and aromatic crop.

\*until 30 september 2014

## Graffic 2. Issuance Horticulture Variety Registration (for Release Permit) Year 2011-2014\*)

### Total 322 varieties

- 215 varieties (87%) from vegetables crop;
- **62 varieties (19%) from fruits crop;**
- 42 varieties(13%) from ornamental plants;
- 3 varieties (1%) from medicinal and aromatic crop.



\*until 30 september 2014

# PVP Situation on Fruit Crop

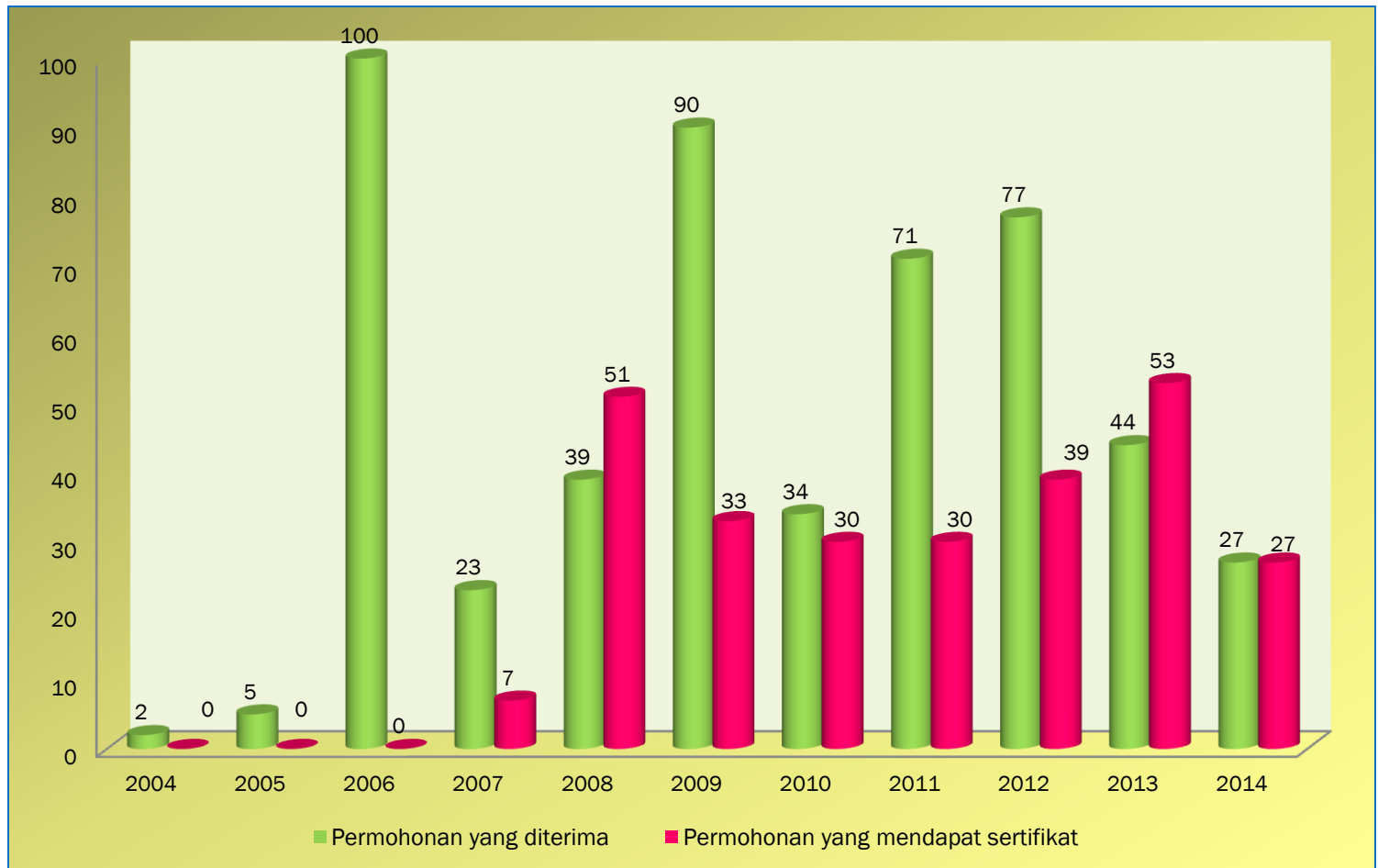


# **PVP situation on Fruit Crop**

- Number of PVP applications in Indonesia are still fluctuate as new country which has issued PVP regulation in year 2000 and start the services in 2004;
- PVP application and the PVP rights granting for fruit crop's at the third place, after vegetable and agricultural crop.
- Data and graffic are shown int the next slides of presantation.

**Graffic 3. Development of PVP application & PVP Right Granting From 2004 until 2014\*)**

- Remarks:
- Green → PVP applications
  - Red → PVP Rights granting

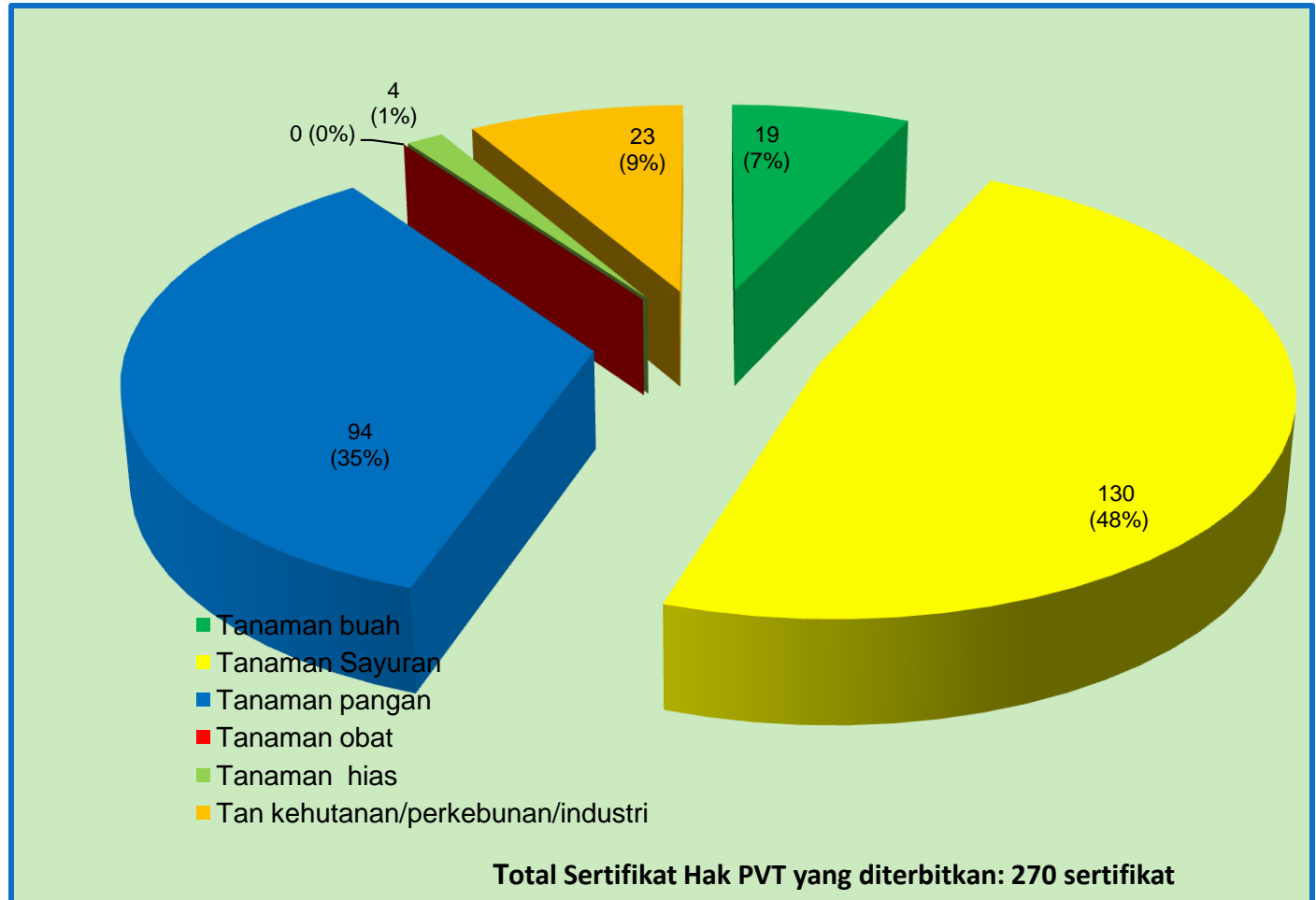


\*) until 30 September 2014

**Graffic 4. Issuance PVP Rights Certificates Based on Crops \*)**

**Remarks**

- Lightyellow → vegetables crop
- Blue → agriculture crop
- Dark green → fruits crop
- Yellow → industrial crop
- Light green → ornamental plants
- Red → medicinal and aromatic crop



\*) s.d 30 September 2014

# My contribution to the meeting:

- Improving the TG's draft based on discussion with the Rambutan and Averhoa expert in Indonesia Fruit Research Institute;
- Adding some varieties of rambutan and averhoa that exist on Indonesia as example variety in the TG that suitable with the characteristics state and notes;
- I can actively involve in the workshop for this TG meeting with my experience involve in another TG meeting before.

Terima kasih  
Thank You