



CENTRAL INSTITUTE FOR SUPERVISING AND TESTING  
IN AGRICULTURE (ÚKZÚZ)

# PLANT VARIETY TESTING – FRUIT



Examination of Distinctness,  
Uniformity and Stability

National Listing of varieties of fruit

Plant Variety Protection

International co-operation

Testing stations

Testing station Lysice

PLANT VARIETIES

# Examination of Distinctness, Uniformity and Stability (DUS)

Distinctness, uniformity and stability of variety is one of the requirements for national listing and grant of plant variety rights. DUS tests are carried out according to internationally harmonized methodologies or national test guidelines.

## Distinctness

The variety shall be deemed to satisfy the condition of distinctness if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge as of the date of filing of the application for grant of plant variety rights by reference to the expression of at least one characteristic resulting from its genotype or combination of genotypes.

## Uniformity

A variety is considered uniform if shows satisfactory uniformity in expression of characteristics included in testing of distinctness as well as characteristics used in the description of the variety with the exception of deviations which can justifiably be expected as a consequence of peculiarities of its propagation.

## Stability

A variety is considered stable if, in expression of characteristics included in testing of distinctness as well as characteristics used in the description of the variety, it remains unchanged after repeated propagation.

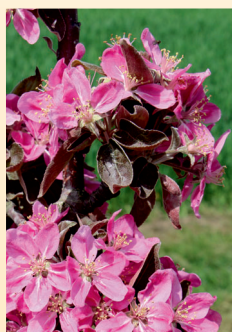
## Distinctness of the colour of petals for apple



*white*



*light pink*



*middle pink*



*dark pink*

## Pattern of over colour



*Solid flush with strongly defined stripes*

*solid flush with weakly defined stripes*

*only solid flush*

# National Listing of Plant Varieties of fruit

National listing of plant varieties is a precondition for a certification and marketing of plant reproductive material, and guarantees the suitability of the variety for soil-climatic condition of the Czech Republic.

## Conditions for national listing:

- Distinctness, Uniformity, Stability (DUS),
- suitable denomination,
- maintenance of the varieties.

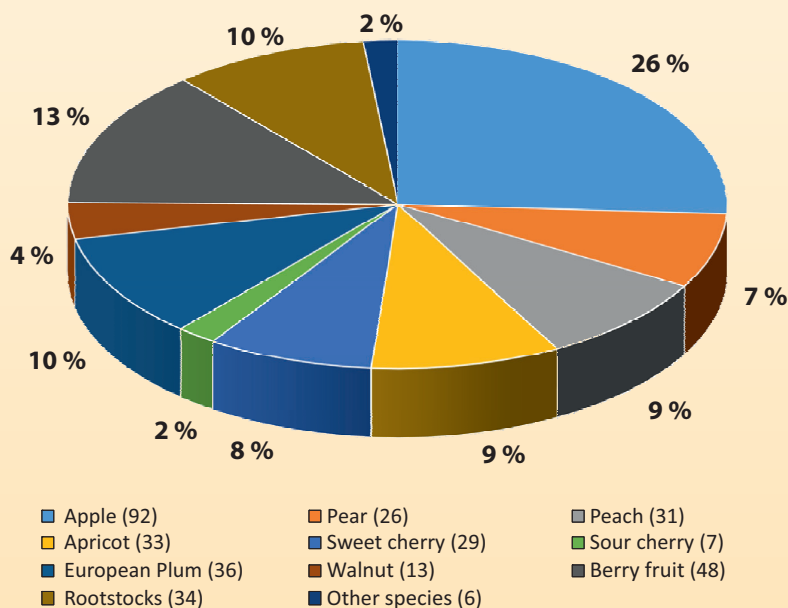
Central Institute for Supervising and Testing in Agriculture – National Plant Variety Office is independent in its decision on national listing.

## Central Institute for Supervising and Testing in Agriculture

- publishes annually a consolidated version of the National List of Plant Varieties and regularly on the website [www.ukzuz.cz](http://www.ukzuz.cz).
- notifies listed varieties and all modifications to the CPVO to be published in the CPVO database and to the European Commission to be published in the database FRUMATIS.

## Percentage of listed varieties in the fruit sector

The number of varieties are put into brackets according to each species.



# Plant Variety Protection

Plant Variety Rights are a form of intellectual property designed specifically to protect new varieties of plants.

## Two parallel systems of the Plant Variety Rights protection:

- National Plant Variety Rights – on the territory of each Member State in accordance with their national laws.
- Community Plant Variety Rights – on the territory of EU.

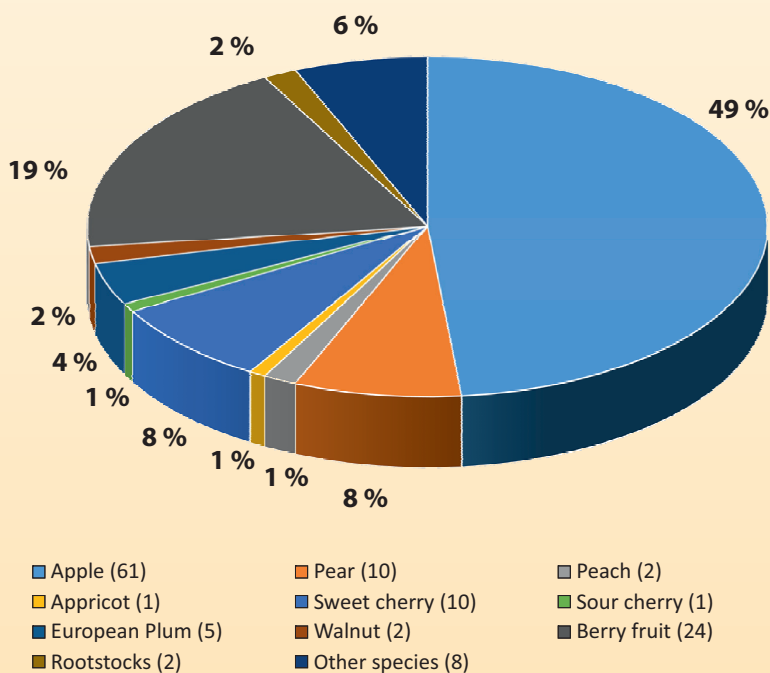
## Conditions for the granting of Plant Breeders Rights:

- Distinctness, Uniformity, Stability and Novelty.
- Suitable denomination.
- Maintenance of the variety.

Central Institute for Supervising and Testing in Agriculture – National Plant Variety Office is independent in its decision on granting of plant variety rights.

## Percentage of granted rights in the fruit sector

The number of varieties are put into brackets according to each species





# International co-operation

ÚKZÚZ is entrusted by the Administrative Council of Community Plant Variety Office in accordance with Council regulation (EC) No 2100/94 for technical examination work of 29 plant species.

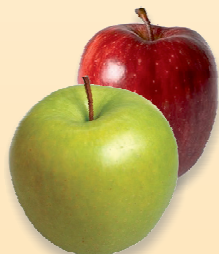
On the basis of bilateral agreements, the National Plant Variety Office carries out DUS tests for testing authorities in member states and third countries.

## Participation in expert groups and international projects

- International Union for the Protection of New Varieties of Plants – technical working parties for agricultural plants, vegetables, fruit species, automation and computer programs, biochemical and molecular techniques.
- Community Plant Variety Office (CPVO).
- European Commission and European Council.
- International Biometric Society.

## Scope of CPVO entrustment – fruit species

- Apple – Lysice (LYS).
- Honeysuckle – Chrlice (CHR).
- Walnut – Lysice (LYS).



# Testing stations

Distinctness, uniformity and stability trials for plant variety protection and national listing of fruit varieties are performed at 4 testing stations:

- **Lysice testing station** – mainly pome fruit, sweet cherry, sour cherry, plum, shell fruit except almond; partly berry and other minor fruit species
- **Chrlice testing station** – berry fruit (gooseberry, black currant, red currant and white currant, honeysuckle, blueberry)
- **Oblekovice testing station** – apricot, peach, almond
- **Lednice testing station** – apricot, peach



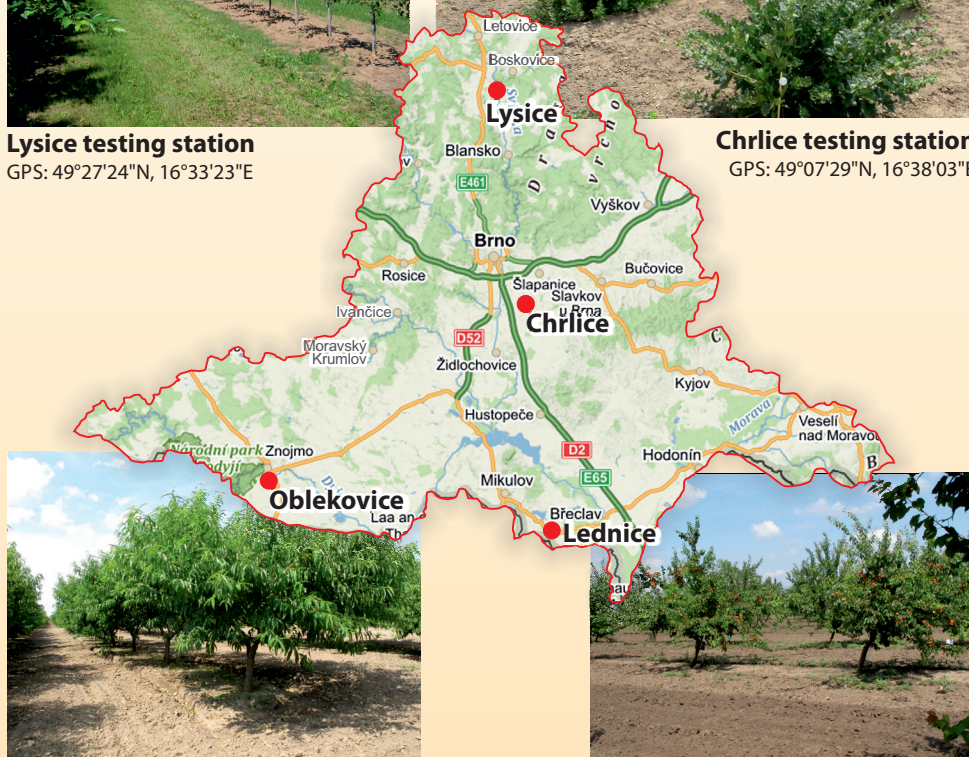
**Lysice testing station**

GPS: 49°27'24"N, 16°33'23"E



**Chrlice testing station**

GPS: 49°07'29"N, 16°38'03"E



**Oblekovice testing station**

GPS: 48°50'02"N, 16°04'11"E



**Lednice testing station**

GPS: 48°48'30"N, 16°46'20"E



# Lysice testing station

## Basic characteristics of the location

Altitude	370 m	Production region	Growing wheat
Average annual temperature	7.8 °C	Soil type	Loamy
Average annual rainfall	620 mm	Soil category	Fluvisols

## Trials with fruit species

Pome fruit	Stone fruit	Shell fruit	Berry and minor fruit species
European pear *	European plum *	Hazelnut *	Elder *
Japanese pear *	Japanese plum *	Walnut *	Chestnut
Apple *	Sweet cherry *		Raspberry *
Quince	Sour cherry *		Blackberry

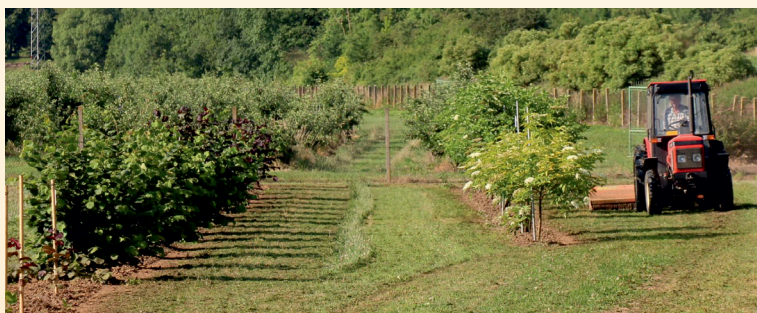
\* Living reference collection

ÚKZÚZ has extensive collections of reference varieties of common knowledge.



# Lysice testing station

- The information point for the cultivation and protection of fruit species
- Annual organoleptic evaluation



## CENTRAL INSTITUTE FOR SUPERVISING AND TESTING IN AGRICULTURE

Section of Plant Production  
National Plant Variety Office and Operating  
and Testing Department  
Hroznová 2, 656 06 Brno  
Phone: +420 543 548 211

[www.ukzuz.cz](http://www.ukzuz.cz)

09-2018

Testing station Lysice  
Boskovická 450, 679 71  
Phone: +420 739 246 578