



## NATURE AND LANDSCAPE MANAGEMENT STANDARDS

**TSES AND LANDSCAPE-  
FORMING ELEMENTS**

**ESTABLISHMENT AND  
MANAGEMENT OF FRUIT  
TREE GENE POOL AREAS**

**SPPK C02 006:2018**

**SERIES C**

### Zakládání a péče o genofondové plochy ovocných dřevin Bestandesbegründung und Pflege um die Genofondflächen der Obsthölzer

This standard is intended as a definition of gene pool areas of target enumerated woody plant species important for maintenance of the Czech Republic's landscape character and for promotion of biodiversity of the agricultural landscape. It sets mandatory values and procedures for establishment and maintenance of such areas. It defines methods of use of areas, promotion of traditionally cultivated varieties and their restoration in the landscape, and acquisition of further findings necessary for regulating efficient use of public funds.

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SPPK C02 003 Planting of fruit trees in the agricultural landscape.

SPPK C02 005 Management of functional plantings of fruit woody plants.

SPPK A02 010 Vegetation management around public transport infrastructure.

#### Standard development:

Developed for NCA CR by the Faculty of Horticulture, Mendel University in Brno, in 2018

#### External examiner:

Ing. Pavol Hauptvogel CSc., National Agricultural Centre, VURV Piešťany

Mgr. Radim Lokoč, Ph.D., Czech Union of Allotment and Leisure Gardeners

Doc. Ing. Josef Sus, CSc., Faculty of Agrobiological Sciences, Food and Natural Resources, Czech University of Life Sciences

Ing. Vlastimil Zedek, Ministry of Agriculture

#### Authorial collective:

Ing. Martin Lípa (coordinator), Ing. Tomáš Nečas, Ph.D., Ing. Zdena Koberová, Ing. Vojtěch Holubec, CSc.

Documentation for the standard development is available in the NCA CR library.

Standard approved by:

RNDr. František Pelc  
Director of NCA CR

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## 1 Purpose and contents of the standard

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The standard Establishment and management of fruit tree gene pool areas defines values that have to be attained in order for any planting to be declared a gene pool pursuant to this standard. In case the required property of a gene pool area cannot be defined as a value, it can be defined as a binding procedure.

The primary purpose of the standard is to effectively promote restoration of traditionally cultivated varieties of target species in the Czech Republic's landscape. It is desirable that this proceed notably by way of planting of higher tree forms, the cultivation of which possesses the highest value in terms of promotion of desirable biodiversity, adjustment to microclimate conditions and maintenance of landscape character.

The concept of gene pool areas should serve this purpose, as it will ensure sufficiently intensive contact of both professional and general public with the conservation range varieties. In addition, it will promote their qualified use in functional planting. As model structures, gene pool areas shall contribute to improved management of both young and adult functional plantings in the agricultural landscape and demonstrate their polyfunction importance in a time of climate change. Gene pool areas shall promote reintroduction of traditional varieties to propagation and accessibility of propagation material for the general public so that the required planting effects do not depend solely on implementation paid from public budgets.

As part of gene pool areas, trees of selected valuable historic varieties can be identified as *on-farm* preservation of respective varieties under the National programme of preservation and use of genetic resources of plants and agro-biodiversity (hereinafter, the NP GZR).

### 1.1 Legal framework

**Act no. 219/2003 Coll.** on Marketing of Seeds and Seedlings of Grown Plants and amending some laws (Act on the marketing of seeds and seedlings) as amended, which defines requirements for marketing of propagation material.

**Decree no. 378/2010 Coll.**, establishing the list of species of cultivated plants, an Annex to which specifies fruit genera and species grown.

**Act no. 148/2003 Coll.** on Conservation and Exploitation of the Genetic Sources of Plants and Microorganisms Significant for the Nutrition and Agriculture, and an amendment of Act no. 368/1992 Coll. on Administrative Fees, as amended (Act on Genetic Sources of Plants and Microorganisms), as amended.

**Decree no. 458/2003 Coll.**, executing the Act on Genetic Sources of Plants and Microorganisms (act no. 148/2003 Coll.), as amended.

**Decree no. 395/1992 Coll.**, executing some provisions of Czech National Council Act no. 114/1992 Coll. on Nature and Landscape Protection, as amended.

**Decree no. 331/2017 Coll.**, on specification of additional varieties of fruit species with officially recognised descriptions that are considered registered in the National Book of Varieties.

**Act no. 114/1992 Coll.** on Nature and Landscape Protection, as amended.

## 2 Target species of woody plants for location in gene pool areas

### 2.1 Target species of fruit woody plants

2.1.1 Gene pool areas are designed for preservation of suitable varieties, clones and genotypes of the following fruit woody plant species:

- common peach (*Prunus persica* syn. *Persica vulgaris*) – also referred to as peach,
- common pear (*Pyrus communis*) – also referred to as pear,
- apple tree (*Malus domestica*) – also referred to as apple,
- sweet chestnut tree (*Castanea sativa*) – also referred to as chestnut,
- quince tree (*Cydonia oblonga*) – also referred to as quince,
- common hazel (*Corylus avellana*) – also referred to as hazel,
- common almond tree (*Prunus dulcis* syn. *Amygdalus communis*) – also referred to as almond,
- common apricot (*Prunus armeniaca* syn. *Armeniaca vulgaris*) – also referred to as apricot,
- Persian walnut (*Juglans regia*) – also referred to as walnut,
- plum tree (*Prunus domestica*), common plum (*Prunus insititia*) – also referred to as plum,
- wild cherry (*Prunus avium* syn. *Cerasus avium*) – also referred to as cherry,
- sour cherry (*Prunus cerasus* syn. *Cerasus vulgaris*) – also referred to as sour cherry.

These species are on the list of fruit species and genera pursuant to Decree no. 378/2010 Coll.

### 2.1 Target species of non-fruit woody plants

2.2.1 Gene pool areas are designed for preservation of suitable genotypes of the following non-fruit woody plant species:

- European cornel (*Cornus mas*) – also referred to as cornel,
- service tree (*Sorbus domestica*) – also referred to as sorb tree,
- sweet rowan tree (*Sorbus aucuparia* var. *dulcis*)\* – also referred to as sweet rowan,
- shipova tree (*Sorbopyrus auricularis*) – also referred to as shipova,
- common medlar (*Mespilus germanica*) – also referred to as medlar,

- black mulberry tree (*Morus nigra*), white mulberry tree (*Morus alba*) – also referred to as mulberry,
- hawthorn (*Crataegus*).

These species are not on the list of fruit species and genera pursuant to Decree no. 378/2010 Coll., but are recognised as minority fruit trees in terms of the NP GZR.

### **3 Gene pool areas**

#### **3.1 Definition of a gene pool area**

- 3.1.1 A gene pool area is a plot of land or its part dedicated primarily to preservation of varieties of the target woody plant species. Moreover, it is used for study of values of the target varieties for the environment, biodiversity conservation, education and for presentation of these values.
- 3.1.2 It features plantings of fruit and non-fruit woody plants of the target species and target varieties (clones, genotypes) which perform functions specified in 3.2; it also meets the following requirements:
1. There are records and a plan for the positions for location of varieties (clones, genotypes), including positions that are still vacant. The plan and the records are maintained in the data structure and volume prescribed by the present standard.
  2. The positions are marked in the field in accordance with the records and the plan.
  3. Positions of the gene pool area are occupied by individuals of the target species and varieties (clones, genotypes) of the conservation range.
  4. The genuineness of the variety (clone, genotype) is confirmed by qualified pomologists after the start of fertility. Determination is repeated in the case of contradictory conclusions.
  5. Unknown varieties (genotypes) are described and the descriptions are kept available.
  6. A manager is appointed and known, who periodically (at least once a year) puts the records on gene pool area positions in accordance with the factual situation.
  7. The property is covered by a proprietary relationship (contract) for at least 10 years.
  8. Characteristics of the gene pool area developed based on requirements of the present standard are available.
- 3.1.3 Once all the requirements are met, a gene pool area maintained in accordance with applicable standards (see References) is registered in the Database of gene pool areas of old varieties (hereinafter, the Database), which makes it a gene pool area pursuant to SPPK C02 006. A gene pool area that is no longer maintained in accordance with applicable standards ceases to be a gene pool area pursuant to SPPK C02 006 on the day that its position records and area characteristics are not updated.

#### **3.2 Primary functions of a gene pool area**

- 3.2.1 A gene pool area pursuant to the present standard is a planting of woody plants whose primary function is conservation of varieties, clones or genotypes of target species of woody plants listed under the conservation range in Annex 2 to SPPK C02 003 Planting of fruit trees in the agricultural landscape. These varieties are retained primarily for study and promotional purposes in terms of landscape formation and protection in the Czech Republic.

- 3.2.2 Gene pool areas also serve conservation of varieties (clones, genotypes) endangered by extinction. As such, they can be registered as *in-situ/on-farm* backup conservation as part of the NP GZR in case they meet the requirements of the programme.
- 3.2.3 In case a variety (clone/genotype) is not available in the retail network or from other sources, varieties present in gene pool areas can be used for propagating the variety under current legal regulations on propagation of the given species.
- 3.2.4 A gene pool area can also perform other non-production functions (e.g., protection of wild organisms, erosion protection, landscape character formation, etc.) or production functions (e.g., fruit, honey bee products). A gene pool area always has the non-production function of awareness raising and public information about the importance of landraces of fruit woody plants. Polyfunction use of the planting is always desirable but always has to be subordinated to the performance of the primary function.
- 3.2.5 A gene pool area is not a gene pool collection pursuant to Act no. 148/2003 Coll. on Conservation and exploitation of the genetic sources of plants and microorganisms significant for the nutrition and agriculture or a matrix stand pursuant to Act no. 219/2003 Coll. on the marketing of seeds and seedlings of grown plants. It can only become one of these under the precondition that it meets the requirements of said Acts and other related regulations. At the same time, it has to meet the requirements of the present standard. If these requirements cannot be met simultaneously, concurrence of the functions is not permissible.

### **3.3 Origination and treatment of gene pool areas and management of woody plants present**

- 3.3.1 A gene pool area can originate in one of two equivalent processes:
- a) New planting.
  - b) Transformation of an existing planting.
- 3.3.2 The applicable standard for establishing and extending gene pool areas is SPPK C02 003 Planting of fruit trees in the agricultural landscape. For gene pool areas older than 10 years, it is SPPK C02 005 Management of functional plantings of fruit woody plants.
- 3.3.3 For gene pool areas comprising planting along roads, the applicable standard to the necessary extent is SPPK A02 010 Management of woody plants along public transport infrastructures. In the case of differing approaches to cultivation of target species in SPPK A02 010 and the other applicable standards, their applicable shall be specified by the agreement on gene pool area establishment or management.
- 3.3.4 Gene pool areas are preferentially populated with target varieties of target species. The location does strictly have to respect regional nature of local variety ranges, particularly in cases where the area defined by strict regional boundaries does not a suitable gene pool area available with a sufficient capacity of positions.
- 3.3.5 Gene pool areas may contain other varieties (clones, genotypes) in a justified

extent, particularly in the following cases:

- their inclusion in the conservation range is planned for an upcoming update,
- they are appropriate for the area as reference for comparison of properties of other, as yet unknown varieties (see Annex 1 for a basic list of reference varieties),
- the rootstock or trunk-forming variety are planted for later grafting with a target variety (clone, genotype) on the site.



## 4 Characteristics of gene pool areas

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Characteristics of gene pool areas are a part of the documentation mandatorily maintained by the gene pool area manager. The characteristics of a gene pool area are a non-public expert material. Its potential publication requires modifications necessary under the current personal data protection regulations.

In case a gene pool area includes woody plants declared as *on-farm* or *in-situ* backup conservation under the NP GZR, the gene pool area characteristics are included in the information system of the GRIN Czech Gene Bank.

### 4.1 Creating characteristics of gene pool areas

- 4.1.1 The circumference of a gene pool area has to be surveyed at least using a GPS device at all the corner points and stored in the form of an electronic file in the .gpx exchangeable format. The points are visibly marked in the field and the marking is permanently maintained sufficiently visible.
- 4.1.2 Field marking can be omitted if the gene pool area boundaries are clearly obvious in the field. The area delineated for gene pool area position locations has to be clear year-round.
- 4.1.3 Data on administrative, proprietary and ecological conditions of the area (gene pool area characteristics) have to be concentrated in a single document.

### 4.2 Contents of characteristics of gene pool areas

- 4.2.1 Characteristics of gene pool areas are maintained in a tabular form and has to contain the following data:
  - gene pool area name, manager's name, incl. address and contact details,
  - total capacity of positions for placement of target species (including vacant),
  - size of the area within the circumference surveyed by the manager, rounded to full m<sup>2</sup>,
  - coordinates of the point suitable for entry (pedestrian and vehicular) to the gene pool area,
  - soil-forming rocks at least according to the Czech Geological Survey Map 1:50,000,
  - climate characteristics at least derived from the BPEJ of the respective plots or nearest similar plots,
  - listing of genetic soil types present, framework assessment of soil profile depth, skeleton contents, sloping and exposure at least according to the Czech Geological Survey Soil Maps 1:50,000 and the main soil BPEJ of the site plots  
(if more detailed documentation is available, the climate, geological and soil characteristics are derived from it),
  - name of municipality in whose cadastral area the gene pool area is located,
  - list of all concerned cadastral plots specifying the cadastral area to which the

plots belong,

- the owner of each of the plots.

- 4.2.2 At the time of development of the gene pool area characteristics, photographs are made and stored in electronic form that sufficiently document the condition and spatial arrangement of the gene pool area.

### **4.3 Updating characteristics of gene pool areas**

- 4.3.1 Data updates are made at least one a year, by 30 November of the given year at the latest. Update approval is a precondition for continued registration of the area in the Database as a gene pool area pursuant to SPPK C02 006.
- 4.3.2 If the characteristics have not changed, the entry “no change” is made for the respective year.
- 4.3.3 If any data have changed (e.g., area increase and related expansion in soil conditions, proprietary relationships, etc.), a new area characteristics are made, valid as of the respective year, including photo documentation. The old characteristics are retained as reference for area history.
- 4.3.4 Archived copies of data are retained for the entire duration of the gene pool area existence.

## 5 Position records

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### 5.1 Definition of position records

- 5.1.1 A position in a gene pool area is a geographic point with certain coordinates that is available for the cultivation of a target species individual. A unique and continuous position number series exists in each gene pool area.
- 5.1.2 A position can be occupied by a woody plant or can be currently vacant. Records on both data items are important for analysis of the current status and assessment of usable capacity for placement of more varieties. Data on the status of each position have to be concentrated in a single document. The document is referred to collectively as position records. Its potential publication requires modifications necessary under the current personal data protection regulations.

### 5.2 Creation of position records

- 5.2.1 The organisation of the position number system is defined first. Then, trees in the gene pool area are marked with position numbers, under which they will be kept in all records.
- 5.2.2 Vacant positions in the gene pool area are marked with respective numbers in a suitable way. The numbering has to be kept as a continuous number series, ascending in the way in which the area is usually walked through.
- 5.2.3 Before surveying the positions, check that the numbering is flawless before the numbering error is transferred to the position number series in the position records.
- 5.2.4 All the numbered positions in the area (including currently vacant ones) are surveyed at least using a GPS device. Named points referring to the numbers at each position are stored during the surveying. For each gene pool area, the numbers will be from 001 to the final area capacity.
- 5.2.5 In case trees are present very close to each other at a position and one of them currently cannot be removed, the following procedure applies:
1. Choose one tree as secondary and survey it with the letter A and the position number (e.g., A001). This is the tree that will not be renewed if it ceases to live spontaneously (or is scheduled for later removal) – a position with this identification is present in the area, but will cease to exist in some time.
  2. The other tree is surveyed with the position number only (e.g., 001). This tree is the primary one at the position and will be renewed as necessary.
  3. Marking of woody plants in the field has to match the surveyed point names.
  4. An analogous procedure is applied in cases where multiple varieties (clones, genotypes) are grafted on the woody plant. Additional letters are added to the surveyed point names as needed (e.g., B001, C001). Again, permanent marking of the parts of the woody plant that comprise a variety (clone, genotype) registered in the records has to be assured.

The survey is stored in the form of an electronic .gpx file.

### 5.3 Contents of position records

- 5.3.1 Position records are maintained in a tabular form. The position status is describe by the table rows, and the following terms have to be used for the status descriptions. If no status data are relevant for the position (vacant position, position occupied by non-fruit species), the cell is filled with the symbol: x. This is important as a double check that the position has not been omitted.
- 5.3.2 Names of columns in the position records with their descriptions are specified in 5.3.2.1 - 5.3.2.12. They specify the minimum required data range for each position. In justified cases, the records can be expanded, for example, by altering column names or adding other facts important for data processing aspects in the central gene pool area records.
- 5.3.2.1 **Position name:** Always comprises the point number (e.g., 001), exceptionally accompanied by a letter (e.g., A001).
- 5.3.2.2 **Species:** Target species currently present at the position are described using the terms: peach, pear, apple, chestnut, quince, almond, apricot, walnut, plum, cherry, sour cherry, cornel, rowan, hazel, medlar, mulberry, sorb.  
Non-fruit woody plants are described as: non-fruit.  
If the position is vacant, use: vacant.
- 5.3.2.3 **Variety:** The variety (clone, genotype) name is used as specified in the conservation ranges in SPPK C02 003 Planting of fruit trees in the agricultural landscape. If the variety (clone, genotype) is not included in the conservation ranges, use the name used in expert literature or the working name under it has been described.  
For unknown varieties, use the name as maintained by the area manager (e.g., numeric code, working name), including in brackets the term: working name.  
If the position contains rootstock for later grafting, use the term: rootstock.  
If a non-fruit woody plant is planted at the position, use: Czech species name.  
If there is no woody plant currently at the position, use the term: vacant position.
- 5.3.2.4 **Range:** If the variety (clone, genotype) is part of a conservation range, use the following as needed: priority, specialised, acceptable, pilot, local.  
For known varieties that are not part of a conservation range, use: unclassified.  
For unknown varieties, use: cannot be classified.  
For rootstock, use: 0.  
For vacant positions or non-fruit woody plants, use: x.
- 5.3.2.5 **Yes:** This is a record of approving statements in the variety genuineness check. Fill in the number of confirmations of variety genuineness (e.g., a 2 means that it has been confirmed in 2 different years that it is the declared variety).
- 5.3.2.6 **No:** This is a record of disapproving statements in the variety genuineness check.

Fill in the number of statements contesting the variety genuineness (e.g., a 3 means that it has been stated in 3 different years that it is not the declared variety).

5.3.2.7 **Source:** If known, state the source of the variety (clone, genotype) at the position (e.g., by referring to the GPS coordinate of the parent tree, nursery name, etc.).

In case the woody plant was present at the position at the time of area establishment, use the term: original.

5.3.2.8 **Planting:** Complete the year of planting. In cases of later grafting, complete the year of grafting and add in brackets: grafted.

If the year of planting is not known exactly, enter the estimated year with the term around (e.g., around 1940).

5.3.2.9 **Status:** Use the following terms for the following options.

If the tree has not borne fruit or is rootstock intended for grafting: young.

If the tree bears fruit and the variety genuineness can be checked: bearing.

If the tree has died and has not been replaced with a new planting: dead.

If the position contains nothing but a stake with a position number: nothing.

5.3.2.10 **Alternative numbering:** If the gene pool area historically had, or even still simultaneously has, a different number system for position identification, state this alternative numbering here.

5.3.2.11 **Remarks:** At least 5 columns are dedicated to remarks, which precise the status at the position, records any use of propagation material and other necessary facts.

5.3.2.12 **Statement and pomologist:** These two columns are dedicated to recording statements for verification of variety genuineness at the position pursuant to 6.1 below.

5.3.3 Assurance of tree numbering in the field and its constant legibility is obligatory. Moreover, it is necessary to assure constant agreement between tree numbers in the position record table and the actual state of numbering in the area.

## 5.4 Updating position records

5.4.1 Once a year, by 30 November at the latest, data in the position records for all the positions have to be updated to make them match the physical status. Update approval is a precondition for continued registration of the area in the Database as a gene pool area pursuant to SPPK C02 006.

5.4.2 Before any entries are made, a copy of the previous version is saved as an archive data backup, and new entries are made in the records describing the current status. Archived copies of data have to be retained for the entire duration of the gene pool area existence.

## 6 Inspection procedures

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### 6.1 Variety genuineness inspection in a gene pool area

- 6.1.1 Variety genuineness inspection is made either as a tour of the gene pool area positions or testing of pomological samples or using a suitable molecular genetic method. A pomologist board of three or more members is optimal for a genuineness inspection.
- 6.1.2 The manager shall supply samples for variety testing as per specification of the pomologist board. A report is made on each genuineness inspection (board members' names, date, gene pool area name, position numbers, original variety/clone/genotype name recorded, board statement). In the case of disagreement, opinions of each board member are recorded, making it clear who stated what.
- 6.1.3 A variety genuineness inspection can be concluded if 3 pomologists have clearly agreed on the declared variety at the position or if the variety genuineness is clearly confirmed using a reliable molecular genetic test.
- 6.1.4.1 **Statement:** Enter the variety name according to the conservation ranges (if not contained in expert literature or a previous description).
- 6.1.4.2 **Pomologist:** Enter the name of the pomologist who determined the variety and the year in which it was done. For repeated genuineness inspections, enter all the statements. For agreeing statements, only add new pomologists' names or new years of variety determination. In the case of divergent statements, add more columns "statement and pomologist" to the table.

## 7 Remedial procedures in gene pool areas

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### 7.1 Handling of phytosanitary issues

- 7.1.1 Phytosanitary issues are handled in accordance with current legislation in force. Each specific procedure has to be first consulted with an expert, including the below organisms causing serious diseases in the target species.
- 7.1.2 List of organisms whose presence requires increased attention in fruit woody plant gene pool areas:
- ApMV – Apple mosaic virus (apples only) → *Malus* genus
  - ACLSV – Apple chlorotic leaf spot virus (apples, pears, plums, apricots and peaches) → genera *Malus*, *Pyrus*, *Prunus*
  - ASGV – Apple stem grooving virus (apples, pears ) → genera *Malus* and *Pyrus*
  - AP – Apple proliferation phytoplasma (apples only) → *Malus* genus
  - PD – Pear dechne phytoplasma (pears only) → *Pyrus* genus
  - Erwinia amylovora* (pears, quinces, hawthorns and rowans) → genera *Pyrus*, *Cydonia*, *Crataegus*, *Sorbus*
  - PPV – Plum pox potyvirus (plums, apricots and peaches ) → *Prunus* genus
  - PNRSV – Prunus necrotic ring spot virus (cherries, plums, apricots and peaches) → genera *Cerasus* and *Prunus*
  - ESFY – European stone fruit yellows phytoplasma (apricots, peaches, plums and blackthorns) → *Prunus* genus

### 7.2 Resolving conflicts between species protection and variety preservation

- 7.2.1 Generally speaking, species protection is above variety preservation.
- 7.2.2 If possible given the circumstances, a procedure is defined that enables preservation of an endangered variety without restricting the specially protected or endangered species with which the variety preservation conflicts.

## 8 Standard terminology

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- 8.1 **Area manager** is a natural person responsible for management of the gene pool area, particularly keeping records and field position marking, typically the owner/grower.
- 8.2 **Genotype** is a set of genes that define the hereditary properties of an organism. An individual's genotype comprises its complete genetic characteristics, and is a result of the fusion of two genotypes of parent gametes during fertilisation. Different genotypes may have the same phenotypes, i.e., a certain form of a trait may include various genotypes.
- 8.3 **Phenotype** is a set of all biochemical, physiological, anatomical and morphological traits and properties that can be measured, described or otherwise registered in an organism. It is primarily determined by the genotype. Phenotype formation is always the results of more or less complex interactions between the genotype and the environment in which the organism lives.
- 8.4 **Clone** is a set of offspring produced by asexual (vegetative) reproduction. Parent genes are not combined; all individuals of the same clone have identical genotype. Clones are obtained, e.g., by grafting, budding, springing, offsetting and layering. A clone is a frequent type of a vegetatively propagated variety.
- 8.5 **Variety/cultivar (cv.)** is a set of individuals showing certain characteristic traits that are hereditary and are retained in vegetative propagation, depending on cultivar type. A variety is the product of human growing, particularly selection breeding. It is therefore more an economic than botanical category (var.). It is characterised by distinction, balance and stability of its properties and traits. From a historical point of view, they are divided into landraces and bred varieties.
- 8.5.1 **Landraces** are a product of vernacular selection and long-term effects of local conditions. They are populations or clones well-adjusted to specific sites, in which they show high efficiency, resistance or specific qualitative properties.
- 8.5.2 **Bred varieties** are the product of targeted selective breeding. Natural selection was not as important in their origin. These varieties are more balanced, more specialised and, under high-level agrotechnology, significantly more yielding and better quality than landraces. They can be divided into obsolete and advanced cultivars.
- 8.5.2.1 **Obsolete cultivars** are cultivars from the early days of selective breeding, produced by deliberate crossbreeding and selection or coincidental crossbreeding a subsequent selection; they were of local significance originally and were then propagated.
- 8.5.2.2 **Advanced cultivars** were produced by a process of professional selective breeding and show comprehensive qualitative properties important for market production.
- 8.6 **On-farm conservation** is a position in a gene pool area that is occupied by a newly planted variety meeting the requirements of the NP GZR and included in this programme.
- 8.7 **In-situ conservation** is a position that is occupied by an original tree cultivated



before the establishment of the gene pool area that meets the requirements of the NP GZR and is included in this programme.

- 8.8 **Database of gene pool areas of old varieties (Database)** is a nationwide database registering gene pool areas and Gene Pool Areas pursuant to SPPK C02 006. It is kept by the NCA CR or its contractual partner.
- 8.9 **Gene Pool Area pursuant to SPPK C02 006** is a gene pool area registered in the Database of gene pool areas of old varieties.
- 8.10 **Target variety** is a cultivar, clone or genotype intended for preservation in a gene pool area. Target varieties also include reference varieties as per Annex 1 and are defined separately for each area when registering it in the Database as per 3.1.3. A change of target varieties can only be made when updating the position records as per 5.4. Target varieties are selected from among the conservation ranges in SPPK C02 003 Planting of fruit trees in the agricultural landscape as well as those that are not included in the conservation ranges but may fall among varieties with working names or undetermined varieties at the time of planting or grafting. They may be of great importance in the area in terms of conservation (tradition, processing method, resistance, etc.), and there is a good chance that they will be classified, determined or described in the future.

**Annex 1 List of reference varieties for monitoring properties of varieties in gene pool areas**

Apricots: Velkopavlovická, Marlen, Leskora

Peaches: Redhaven, Krasava, Orion – nectarine.

Pears: Clappova, Williamsova čáslavka, Konference

Apples: Golden Delicious, Prima

Cherries: Rychlice německá, Burlat, Napoleonova

Plums: Domáci velkoplodá, Stanley

Sour cherries: Fanal, Morela pozdní

Walnuts: Mars

## **Annex 2 List of Nature and Landscape Management Standards (Series C – TSES and landscape-forming elements) developed**

### **01 Inspection, assessment, planning**

- 01 001 Assessment of TSES functionality
- 01 002 TSES development (plans and projects)

### **02 Work procedures**

- 02 001 Implementation of TSES biocentres and biocorridors
- 02 002 Development of landscape-forming and interactive elements
- 02 003 Planting of fruit trees in the agricultural landscape
- 02 004 Management of TSES components, incl. landscape-forming and interactive elements
- 02 005 Management of plantings of fruit trees
- 02 006 Establishment and management of fruit tree gene pool areas
- 02 007 Grasslands

2018 Mendel University in Brno  
Faculty of Horticulture  
Valtická 337  
691 44 Lednice

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Kaplanova 1931/1  
148 00 Praha 11

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[www.standardy.nature.cz](http://www.standardy.nature.cz)

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