

## METHODOLOGY

### for minimal pomology evaluation for the need of the SEEDNet regional project on apple « Characterization of apple local varieties (*Malus × domestica* Borkh.) from South East European region 2009-2010 »

#### Intro

Within Balkan Peninsula plant material was vastly mixed during long time. In the case of apple it is known that different empires that ruled over the area used to bring their own material to the newly ruled countries and places. Thereafter apple germplasm from different origins were mixing at one place making Balkan Region being important and unique gene pool in Europe. Local people used to give local names to the foreign apple cultivars. Final thesis is that, within the region there are certain numbers of apple local synonyms meaning that it is about same genotype just named differently by local people. In order to reduce conservation costs and possible research misunderstandings it would be necessary to perform pomological studies through the characterization of local material in each partner.

In this region a lot of pomological work on apple is addressed to the commercial varieties. Old varieties are neglected and only partially are described in literature. There is no unique representative regional pomological publication on local varieties and this is urgently needed to be done. This is special because of increased interest for the old varieties as a possible source of new traits for future breeding needs.

This document is representing methodology for harmonization and standardization in pomological procedure for description and identification of local varieties including photo documentation of important plant organs (flower, leaf, seeds, one-year wood and fruit) for the needs of SEEDNet regional project « Characterization of apple local varieties (*Malus × domestica* Borkh.) from South East European region 2009-2010 ».

#### Pomology descriptors

##### *Fruit characteristics*

Time of ripening

Crop basic color

Crop extra color

Shape of crop

Weight, average

Taste

Usage: (cooking, processing, etc.)

## Photo documentation

All taken photos should be made by digital photo. Photos' resolution should be adjusted to be between 9 and 10 megapixels. Photos' weight must be at least 500 KB and saved with the TIFF extension.

Flower, leaf, seeds, one-year wood and fruit will be photographed.

### Fruit (OBLIGATIVE)

Photography will be taken from six angles like it is shown on Figure 1. First position is sunny side, second one is shadow side, third one is from the upside, fourth is bottom side, fifth one is vertical half and sixth one is horizontal half. Background used is sand as it has no reflection (like paper has), it is easy to put fruits in right position and it has pleasant color.

*Figure 1.* Apple fruit photography (Svensson, Hakan and Kastman, Kent. *Applen i Sverige*, 2005, Denmark, pp.185)



**Flower**  
**(OBLIGATIVE)**

Photography will represent flower in fully blossom (Figure 2). Background used should be sand same as for crops.

Figure 2. Flower photography (Svensson, Hakan and Kastman, Kent. *Applen i Sverige*, 2005, Denmark, pp.184)



**Tree**  
**(OPTIONAL)**

The tree in whole must be photographed. Preferable would be to take photos in winter (to observe skeleton without leaves on white background, in spring during flowering time and in summer with leaves). This is optional.

**Other**  
**(OBLIGATIVE)**

Take photo of any detail considered interesting and representative for the cultivar. It can be any part of the tree or tree in total. This photo will be used for the pomology monograph additionally to the crops and flowers photos.