

Shaking of fruitlets

- ◆ Manual shaking of fruitlets using poles - easier than manual thinning (fruits distribution is uneven)
- ◆ Shaking using fruit shakers for harvest (however, results may not be satisfactory)

Control using pray applications

- ◆ Blossom thinning during full blooming period - spraying with urea or calcium sulphate (preferably: ammonium thiosulphate, 1.5 % + emulsifier)

Chemical thinning

- ◆ Water solution with chemical hormones spray is applied on the trees, alpha-NAA amide or NAA and ethephon-based products
- ◆ Application of products of various concentrations, after petal loss (weather-dependent)



Apricot trees



- ◆ On trees with fruits, assimilation products and nutrients are used preferably for fruits and seeds
- ◆ Tree is unable to adjust disproportions between productiveness and growth (productive and unproductive years)
- ◆ High yield reduces storage of reserve substances, trees are endangered by winter frosts
- ◆ High fruit setting – reduction of flower buds with major pruning (after blossom loss, no risk from late spring frosts)

- ◆ Optimum amount of N; N dose after blossom loss (together with irrigation)
- ◆ Excessive amount of fruits in first June decade - necessary thinning
- ◆ Regulation of fruit set is a necessary technology which helps stabilize physiological processes in the plant
- ◆ Full productiveness phenophase: leaves to fruits – 8:1
- ◆ Fruit set may be regulated by reduction of flower buds in the pink-bud phase or the full blossoming phase



Manual thinning

- ◆ Manual thinning of fruits in mid-May is a reliable method
- ◆ First: the early varieties of Lejuna and Leskora; and last - the Bergeron variety
- ◆ 1-2 fruits are left on short fruiting shoots, 8-10 cm apart
- ◆ Long fruiting shoots bear the most valuable fruits on the bottom shoot half
- ◆ Shaded fruits inside the crown are eliminated



Chemical thinning

- ◆ Large-scale orchards: Chemical thinning, application of products with various concentrations, after petal loss

Peach trees



- ◆ Regulation of productiveness results in increase of fruits quality and stabilized tree development
- ◆ Productiveness is most commonly affected by agro-environmental conditions, variety, rootstock and cropping practices
- ◆ Peach tree bears fruits on one-year old woods and produces excessive amounts of sets of buds and fruits
- ◆ Pruning is a rudimentary method to regulate optimum development of the tree

- ◆ Thinning of excessive fruit sets for summer pinching
- ◆ Weight depression is caused by the quantity of fruits (2-3 weeks after blossom loss), not by weight of the crop
- ◆ 350-400 fruits in open-centre, fully productive trees are considered optimum (fruits mature earlier and are more balanced)
- ◆ Optimum amount of fruits has a positive impact on development of new annual shoots and differentiation of flower buds





Manual thinning

- ◆ Best results, highly demanding, 15 % of total costs
- ◆ Fruits in the bottom part of the crown and on short, less vigorous shoots are removed
- ◆ Fruits of the highest quality are produced on one-year old, mixed shoots without premature growths with minimum length of 40 cm
- ◆ Fruits are thinned to 10-15 cm distance (after June blossom loss, fruits are larger, more distinct qualitative differentiation)

Mechanical thinning

- ◆ Various fruit shakers, poles with rubber extensions; results differ
- ◆ Optimum date: Just before June blossom loss (mericarp fruitlets are already differentiated)

Chemical thinning

- ◆ Preferred in production regions, together with a manual thinning
- ◆ Reduces costs by 70 % and produces great results
- ◆ Decisive factor: Degree of blooming and subsequent mericarp fruitlet production
- ◆ Good for medium-early and late varieties
- ◆ 2-chloroethylphosphonic acid, Ethrel, and Flordimex are registered in the Czech Rep.

- ◆ Optimum date: 4-5 weeks after petal loss, mericarp fruitlet diameter 18-22 mm, Ethrel and Flordimex release ethylene which causes seed collapse and fruits loss
- ◆ Results depend on climate during and after application; on variety and physiological condition of the tree (0.02 % concentration in 1,500 L.ha⁻¹)
- ◆ Fruits loss – within 10-14 days after the application, manual corrections of the chemical thinning are recommended

