



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



Inovace studijních programů AF a ZF MENDELU
směřující k vytvoření mezioborové integrace
CZ.1.07/2.2.00/28.0302

**Tato prezentace je spolufinancovaná z Evropského sociálního fondu
a státního rozpočtu České republiky**

Special Pomology
Characteristic of Commercially Significant Varieties
Fruit-growing - Seminar
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Faculty of Horticulture
MENDELU

APPLE TREE



JULIA

Early summer variety

Harvest: July – Aug

Short-term storage

Origin: VŠÚO Holovousy, 'Quinte' x 'Discovery'

Growth and productiveness: Medium strong growth, and very early, high and regular productiveness

Fruit: Medium-sized, flat round, dark-red fruit; cream yellow flesh with medium amount of juice, aromatic, slightly sour flavour

Diseases and pests: Resistant to as well as scabiosis and mildew



JAMES GRIEVE + clones
(James Grieve Double Red)
Early autumn variety
Harvest: End of Aug,
beginning of Sep
Storage: Until Nov-Dec

Origin: England

Growth and productiveness: Medium strong growth, and early, high and regular productiveness

Fruit: Medium to large, red patches, cream-coloured, juicy, aromatic, slightly sour flesh

Diseases and pests: Susceptible to scabiosis, medium susceptibility to mildew, strong susceptibility to brown rot



GOLDEN DELICIOUS + clones

Harvest: Mid-Oct

Storage: Until Feb

Origin: USA, chance seedling

Growth and productiveness: Medium strong growth, and medium early, high productiveness

Fruit: Medium to large, yellow, yellowish flesh, juicy, aromatic, sweet

Diseases and pests: Susceptible to scabiosis, medium susceptibility to mildew



IDARED

Harvest: Mid-Oct

Storage: Until Apr-May

Origin: USA, crossbred between Wagner and Jonathan

Growth and productiveness: Medium strong to weak growth, and early, very high productiveness

Fruit: Medium, red patches, white flesh, juicy, slightly sour

Diseases and pests: Highly susceptible to apple scab and apple mildew



Rubín

Early winter variety

Harvest: end of Sep

Storage: Jan-Feb

Origin: Otto Louda, Střížovice, 'Golden Delicious' x 'Lord Lambourne'

Growth and productiveness: Very strong growth, medium late, regular productiveness

Fruit: Large, round, red stripes, yellowish, juicy, slightly sour flesh

Diseases and pests: Mediocre resistance to fungi diseases



ŠAMPION

Harvest: end of Sep

Storage: Jan-Feb

Origin: Otto Louda, Střížovice, 'Golden Delicious' x 'Coxova reneta'

Growth and productiveness: Medium strong, early, very high productiveness, thinning is necessary

Fruit: Medium, round, red stripes, white to creamy, juicy, slightly sour flesh

Diseases and pests: Prone to apple scab, resistant to mildew



JONAGOLD + mutations
Winter variety
Harvest: End of Sep/Oct
Storage: Until March

Origin: USA, 'Golden Delicious' x 'Jonathan'

Growth and productiveness: Strong growth, triploid, early, high productiveness, thinning is necessary

Fruit: Medium to large, conically round, red patches, creamy, juicy, aromatic, very good flesh

Diseases and pests: Little resistance to fungi diseases



TOPAZ[®]

Excellent winter variety

Organic orchards abroad

Harvest: Early Oct

Storage: Jan-Apr

Origin: ÚEB AV Czech Rep., Střížovice, 'Rubín' x 'Vanda'

Growth and productivity: Medium strong growth, early and abundant, regular productivity

Fruit: Medium, round, orange-red, creamy, juicy, slightly sour flesh

Diseases and pests: Resistant to apple scab, little sensitivity to mildew



RUBINOLA[®]

Excellent winter variety

Organic orchards

Harvest: end of Oct

Storage: March-Apr

Origin: ÚEB AV Czech Rep., Střížovice, 'Prima' x 'Vanda'

Growth and productiveness: Vigorous growth, widely round crown, medium late, abundant productiveness

Fruit: Large, flat round, shiny red, creamy, juicy, sweet flesh

Diseases and pests: Resistant to apple scab, very resistant to mildew



MELODIE[®]

Winter variety

Harvest: end of Sep

Storage: Until Feb

Origin: Otto Louda, Střížovice, 'Šampion' x 'OR-38T-16'

Growth and productiveness: Medium vigorous growth, early and regular productiveness, necessary thinning

Fruit: Medium large, yellow with purple patches, prunoise peel, white, acidic, juicy, slightly sour flesh

Diseases and pests: Resistant to apple scab, higher sensitivity to mildew



ANGOLD[®]

Winter variety

Harvest: end of Sep

Storage: Until March

Origin: VŠÚO Holovousy, 'Golden Delicious' x 'Antonovka'

Growth and productiveness: Medium vigorous growth, early and abundant, regular productiveness

Fruit: Medium large, conical, dark-red stripes, juicy, creamy flesh, very tasty

Diseases and pests: Resistant to apple scab, susceptible to mildew



GOLDSTAR[®]

Winter variety

Harvest: End of Oct

Storage: Until Apr

Origin: ÚEB AV Czech Rep., Střížovice, 'Rubín' x 'Vanda'

Growth and productiveness: Medium vigorous growth, early and regular productiveness, necessary thinning

Fruit: Medium large to large, round, greenish yellow, juicy and brittle flesh

Diseases and pests: Resistant to apple scab, more susceptible to bitter pit



DENÁR

Early winter

Harvest: Mid-Oct

Storage: Dec-Feb

Origin: ŠS Těchobuzice

Growth and productiveness: Medium vigorous growth, early and abundant productiveness

Fruit: Large, yellow with red patches, creamy and sweet flesh

Diseases and pests: Susceptible to apple scab, good for higher elevations



DELOR

Winter variety

Harvest: Mid-Oct

Storage: Dec-Feb

Origin: ŠS Těchobuzice

Growth and productiveness: Medium strong growth, early and abundant, regular productiveness

Fruit: Round, red with yellow stripes, yellow, sweet, brittle flesh

Diseases and pests: Resistant to mildew and apple scab



GLOSTER

Winter variety

Harvest: End of Sep

Storage: Until March

Origin: Germany, 'Zvonkové' x 'Richard Delicious'

Growth and productiveness: Vigorous growth, medium-late and abundant productiveness

Fruit: Large, conical, dark red, greenish white and sweet flesh

Diseases and pests: Mediocre resistance to diseases



GALA

Winter variety

New Zealand

Harvest: Mid-Oct

Storage: Until Feb

Very sensitive to apple scab



BRAEBURN

Late winter variety

New Zealand

Harvest: End of Oct

Storage: Until June

Very sensitive to apple scab

Warm locations: long vegetation



RED DELICIOUS + mutations

Winter variety

Harvest: End of Sep

Storage: Until March

Very sensitive to apple scab

Very common all over the world

Not a significant variety in the

CR



ELSTAR

Winter variety

The Netherlands

Harvest: Early Sep

Storage: Until Feb

Demanding variety, requires
warm locations



GRANNY SMITH

Late winter variety

Australia

Harvest: Mid-Nov

Storage: Until May

Very long vegetation

Colour is popular on the market



FUJI

Late winter variety

China

Harvest: Oct

Storage: Until May

Imported, not grown in CR

PEAR TREE



CLAPPOVA

Harvest: mid-Sep

Optimum ripeness for consumption: Nov-Dec

Productiveness: Regular, abundant



WILLIAMSOVA

Harvest: Mid-Sep

Optimum ripeness for consumption: Nov-Dec

Productiveness: Regular, abundant

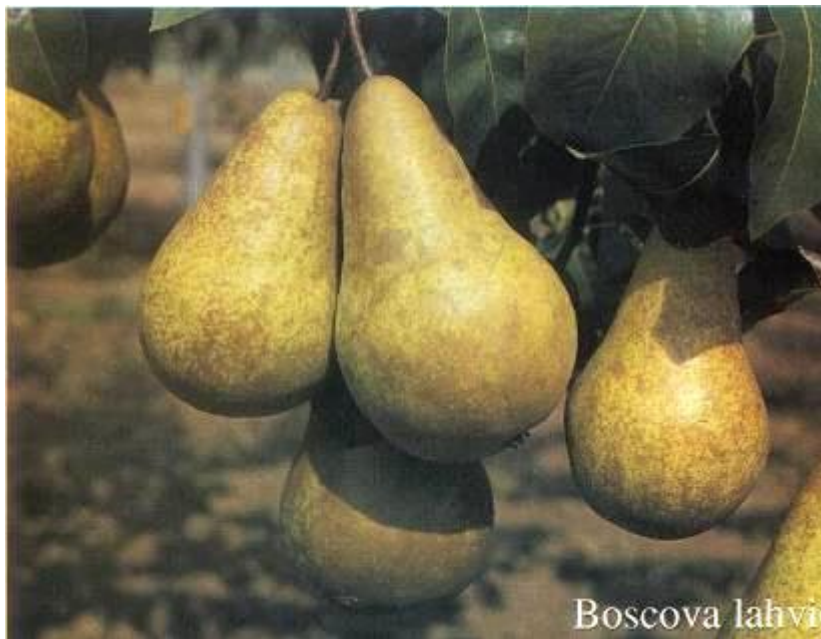


Harvest: mid-Sep

Optimum ripeness for consumption: Nov- Dec

Productiveness: Regular, abundant

BOSCOVA LAHVICE

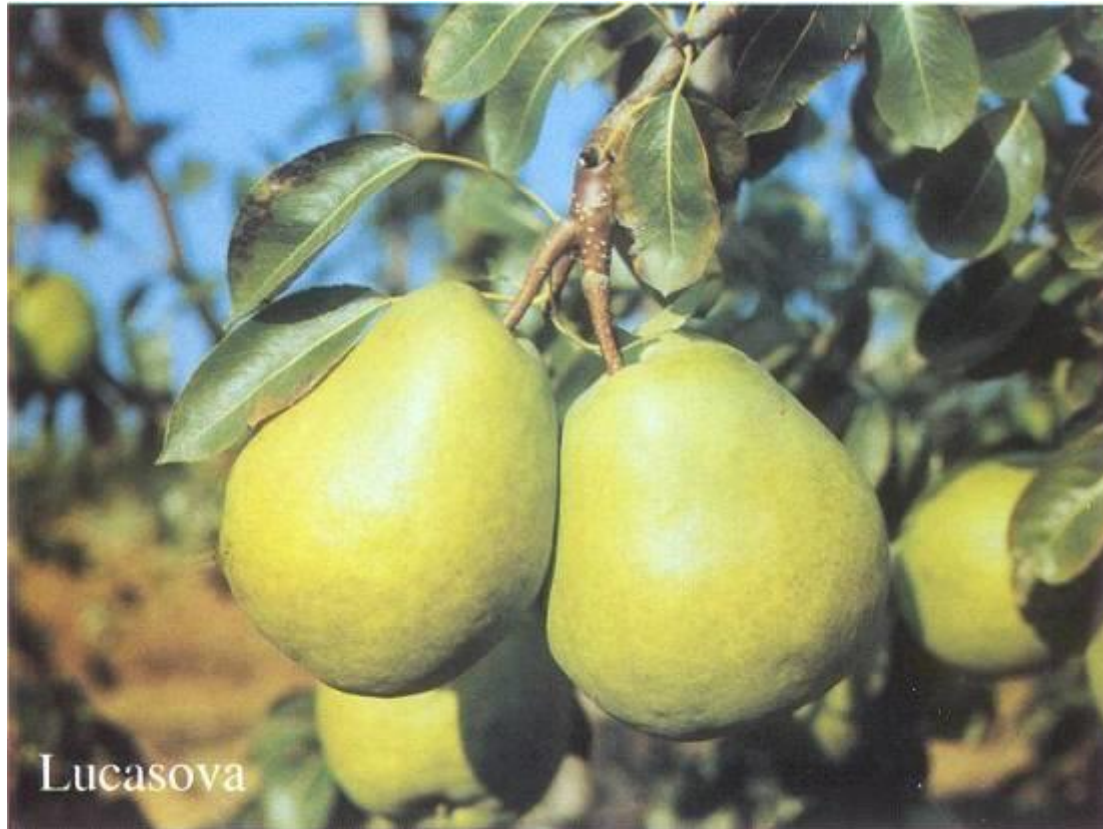


Harvest: Sep/Oct

Optimum ripeness for consumption: October - December

Productiveness: Medium early to late, regular

LUCASOVA



Harvest: Mid-Oct

Optimum ripeness for consumption: Nov-Jan

Productiveness: Early, regular, high

DICOLOR

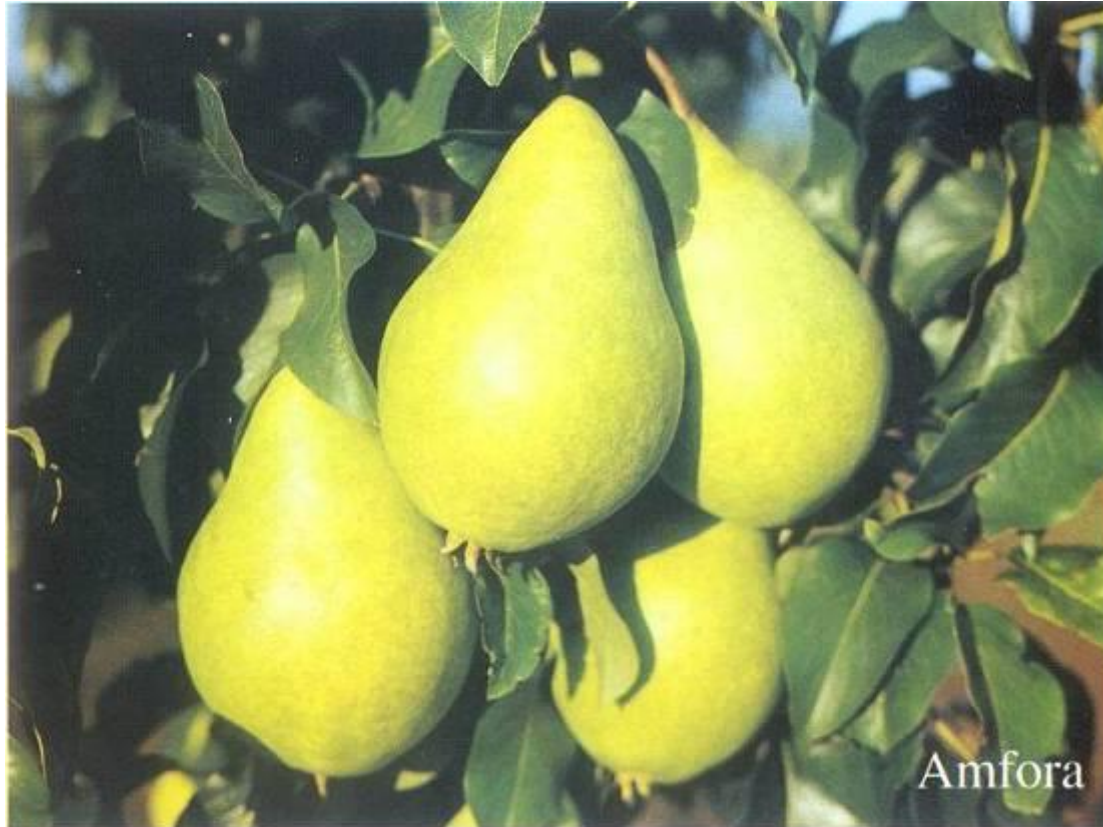


Harvest: Early Oct

Optimum ripeness for consumption: Dec-Feb

Productiveness: Regular, high

AMFORA



Harvest: Early Oct

Optimum ripeness for consumption: Oct-March

Productiveness: Early, regular, high



BOHEMICA

ČR, Těchobuzice

Pařížanka x Charneuská

Harvest: second half of Oct

Optimum ripeness

for consumption: Jan-March (Apr)

High and regular productiveness

High frost-resistance

High resistance to diseases

Resistant to fire blight

Easy variety

Warm locations – better flavour

PLUM TREE

Classification *Prunus domestica* (Linné):

Common plum (Hegi, 1925)

1. subspecies *insititia* (Poiret) – damson plum
 - varietas *juliana* (Linné) – common damson plum
 - varietas *pomariorum* (Boutigny) – spilling
 - varietas *cerea* (Linné) – mirabelle plum

2. subspecies *italica* (Borkhausen) – greengage
 - varietas *claudiana* (Poiret) – round greengage
 - varietas *ovoidea* (Martens) – egg-shaped greengage

3. subspecies *oeconomica* (Borkhausen) – plum
 - varietas *subrotunda* (Bechstein) – round plum
 - varietas *oxycarpa* (Bechstein) – oval plum
 - varietas *mammilaris* (Schübler et Martens) – plum crossbreds
 - varietas *pruneauliana* (De Candolle) – common plum





KATINKA

Harvest: Aug: Very early plum crossbred
Resistance to plum pox: Very high

ČAČANSKÁ LEPOTICA, ČAČANSKÁ NAJBOLJA



Harvest: Aug/Sep

Resistance to plum pox: Tolerant variety

ČAČANSKÁ RODNÁ



Harvest: Early Sep

Resistance to plum pox: Medium

STANLEY



Harvest: Sep: Autumn variety

Resistance to plum pox: Tolerant variety

DOMÁCÍ VELKOPLODÁ



Harvest: Sep: Very late

Resistance to plum pox: Very low

VALJEVKA



Harvest: Sep – Very late variety
Resistance to plum pox: Medium

JOJO



Harvest: Aug/Sep

Resistance to plum pox: Resistant variety

Pomology Classification of Cherries and Sour Cherries

CHERRY

- var. juliana: - heart-shaped cherry (soft flesh)
- var. duracina: - hard-fleshed cherry (hard flesh)
- Cross breeding: - semi-hard-fleshed cherry (semi-hard flesh)

SOUR CHERRY

True sour cherry: *P. cerasus* subsp. *eucerasus*

- 1. Sour cherry ("vajksle"): Dark fruit, colouring juice
- 2. Amarelle cherry ("amrhele"): Light fruits, non-colouring juice

Cross-bred sour cherries: Cross-bred with sweet cherries

- 1. True sweet hybrid of sour cherry: Dark-red fruits, colouring juice
- 2. "Skleňovky" hybrid: Light fruits, non-colouring juice

Ripening

- According to the ripening of “Rychlice německá” variety (1st week of June)
- The so called “cherry weeks” (1-8)

1. RYCHLICE NĚMECKÁ, RIVAN
2. BURLAT, KAREŠOVA, KAŠTÁNKA
3. METEOR KORAI, TROPRICTEROVA
4. FAVORIT, ÉRDI BÖTERMÖ, VACKOVA, SAM, VANDA
5. GRANÁT, VAN, TĚCHLOVAN, KRDIA, NAPOLEONOVA
6. KÖRÖŠSKÁ, HEDELFIGENSKÁ
7. FANAL, UJFEHÉRTOI FÜRTOS
8. MORELA POZDNÍ

RIVAN



Type: Dark heart-shaped cherry

Requirements: Higher locations

Harvest: 1st week

Characteristics: Small fruits, significant resistance of blossoms to frost-damage

BURLAT



Type: Dark semi-hard-fleshed cherry

Harvest: 2nd week

Characteristics: Excellent flavour, no worms

Requirements: Dry and warm locations (cracking)

KAREŠOVA



Type: Dark heart-shaped cherry

Harvest: End of 2nd week

Characteristics: Fruits quality, health condition (no rotting), resistant to frost-damage, very high productiveness

Requirements: Warm slopes, enough water

SAM



Type: Dark hard-fleshed variety

Harvest: 4th week

Characteristics: High resistance of blossoms to frost-damage, high resistance of fruits to cracking

Requirements: Good for higher locations

VANDA



Type: Dark hard-fleshed variety

Harvest: 4th week

Characteristics: High resistance of blossoms to frost-damage, high resistance of fruits to cracking, high productiveness

Requirements: Good for all growing regions

VAN



Type: Dark hard-fleshed cherry

Harvest: 5th week

Characteristics: Medium resistance of blossoms to frost-damage, low resistance to cracking and brown rot, very high productiveness

Requirements: Warm locations, sufficiently wet soil

TĚCHLOVAN



Type: Dark hard-fleshed cherry

Harvest: 5th week

Characteristics: Good resistance of blossoms to frost-damage, high resistance to cracking, large fruits

Requirements: All locations

KORDIA



Type: Dark hard-fleshed cherry

Harvest: 5th week

Characteristics: Low resistance of blossoms to frost-damage, very high resistance to cracking, high productiveness

Requirements: All locations, soil mustn't be dry

NAPOLEONOVA



Type: Dark hard-fleshed cherry

Harvest: 5th week

Characteristics: Medium resistance of blossoms to frost-damage, low resistance to cracking, high productiveness

Requirements: Warm locations

SOUR CHERRY

METEOR KORAI



Type: True sour cherry

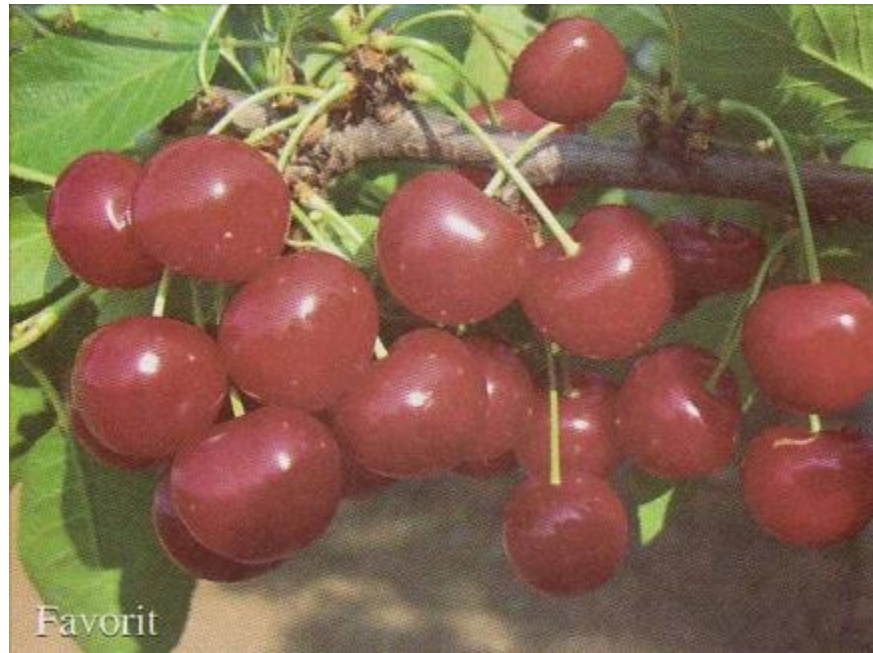
Harvest: 2nd-3rd week

Characteristics: High resistance of blossoms to frost-damage, high resistance to cracking

Requirements: All locations

Use: Eat fresh

FAVORIT



Type: Amarelle sour cherry

Harvest: 4th-5th week

Characteristics: Good resistance of blossoms to frost-damage

High resistance to cracking

Prone to brown rot

Large fruits

Requirements: Warm locations

Use: Eat fresh, excellent flavour

ÉRDI BÖTERMÖ



Type: True sour cherry

Harvest: End of 4th week

Characteristics: Mediocre resistance of blossoms to frost-damage

High resistance to cracking

High productiveness

Requirements: Warm locations, climate mustn't be dry

Use: Eat fresh + processing

MORELLENFEUER



Type: True sour cherry

Harvest: 5th-6th week

Characteristics: High resistance of blossoms to frost-damage

Prone to brown rot

High productiveness

Requirements: Higher locations

Use: Eat fresh + processing

FANAL



Type: True sour cherry

Harvest: 6th-7th week

Characteristics: High resistance of blossoms to frost-damage

High resistance to cracking

High and regular productiveness

Requirements: Mediocre requirements on location, pruning necessary

Use: Processing

ÚJFÉHERTOI FÜRTÓS



Type: True sour cherry

Harvest: 7th week

Characteristics: Mediocre to high resistance of blossoms to frost-damage

High resistance to cracking

High productiveness

Requirements: Warm location, fertile soil

Use: Versatile, excellent fruits

MORELA POZDŇÍ



Type: True sour cherry

Harvest: 7th-8th week

Characteristics: High resistance of blossoms to frost-damage

High resistance to cracking

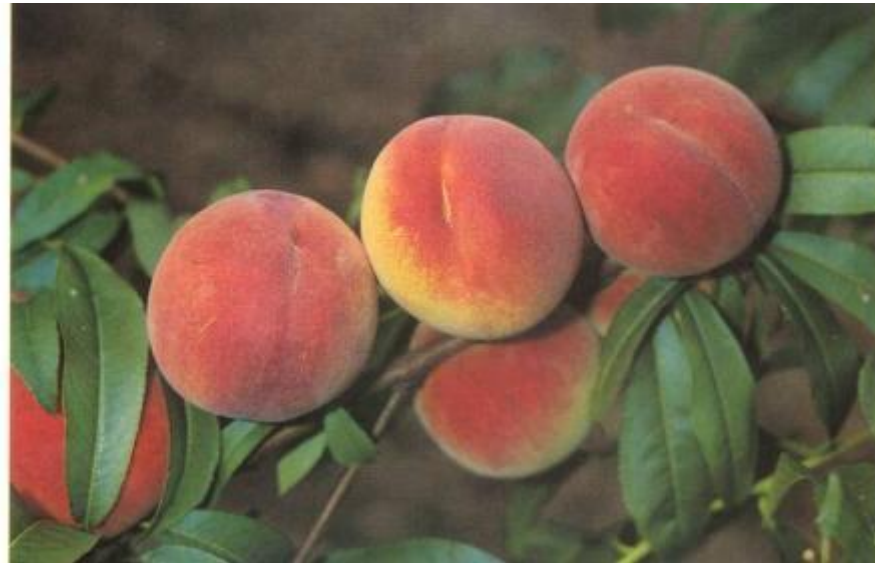
Low resistance to brown rot

Very high productiveness

Requirements: Low

Use: Processing

Pomological Characteristic of Commercial Varieties of Apricots and Peaches



APRICOT TREE



LESKORA

Very early harvest, 17 days earlier than Velkopavlovická variety

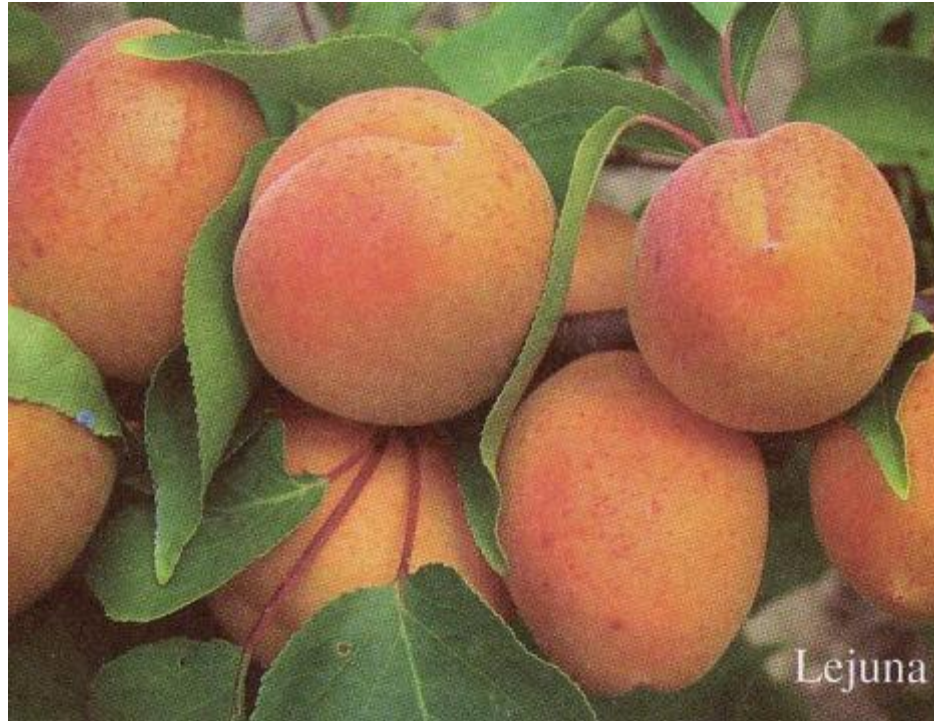
Characteristics: Mediocre resistance to fungi diseases

High resistance to frost-damage

Requirements: Low

Use: Eat fresh

LEJUNA



Early harvest, 12 days earlier

Characteristics: Low resistance to brown rot

High resistance to frost-damage

Requirements: Low requirements on location

Use: Eat fresh; for freezing

LEGOLDA



Early harvest, 6 days earlier

Characteristics: Mediocre resistance to fungi diseases

High resistance to frost-damage

Attractive fruits

Requirements: Mediocre

Use: Eat fresh; for processing

GOLDRICH



Harvest: Medium early

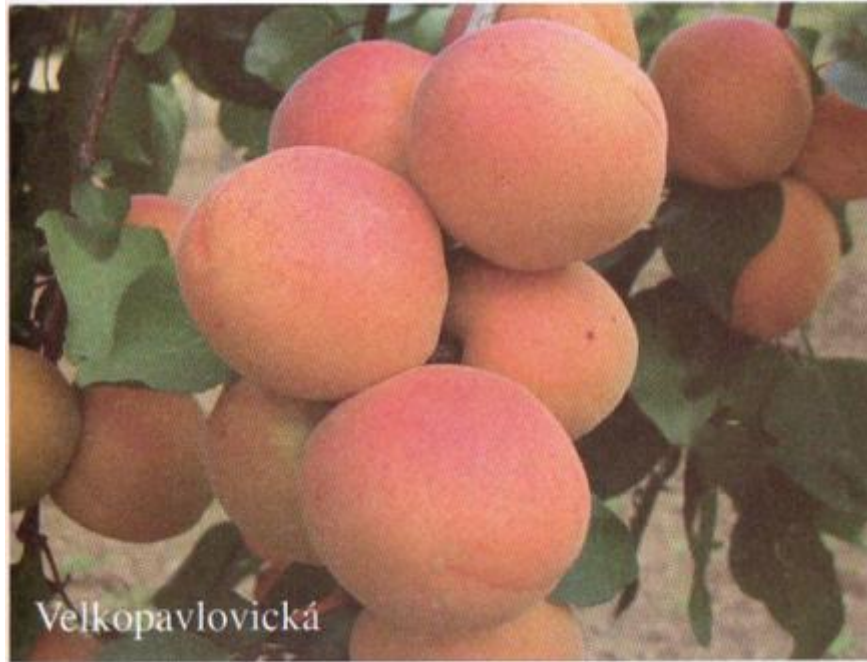
Characteristics: Mediocre resistance to fungi diseases

High resistance of blossoms to frost-damage

Requirements: Mediocre

Use: Eat fresh; for processing

VELKOPAVLOVICKÁ



Harvest: Medium early, 22nd July

Characteristics: Mediocre resistance to fungi diseases

Low resistance of blossoms to frost-damage

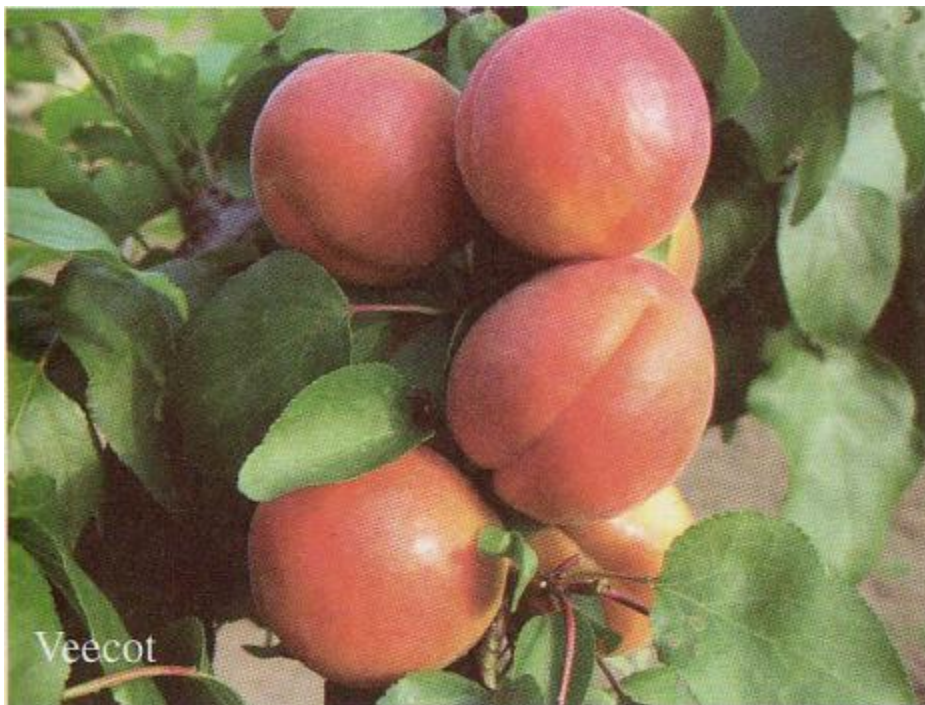
High productiveness

Great flavour

Requirements: Great soil and location

Use: Eat fresh; for processing

VEECOT



Medium-late harvest, 3-5 days later

Characteristics: Mediocre resistance to fungi diseases, high resistance to frost-damage

Requirements: Low requirements on location

Use: Processing (small fruits)

BERGERON



Late harvest, 6-8 days later

Characteristics: Low to mediocre resistance to brown rot, high resistance to frost damage

Requirements: Mediocre

Use: Processing

Pomological Classification of PEACH TRESS

Freestone peaches: Peach fuss, flesh does not stick to the stone

Clingstone peach: Peach fuss, flesh sticks to the stone

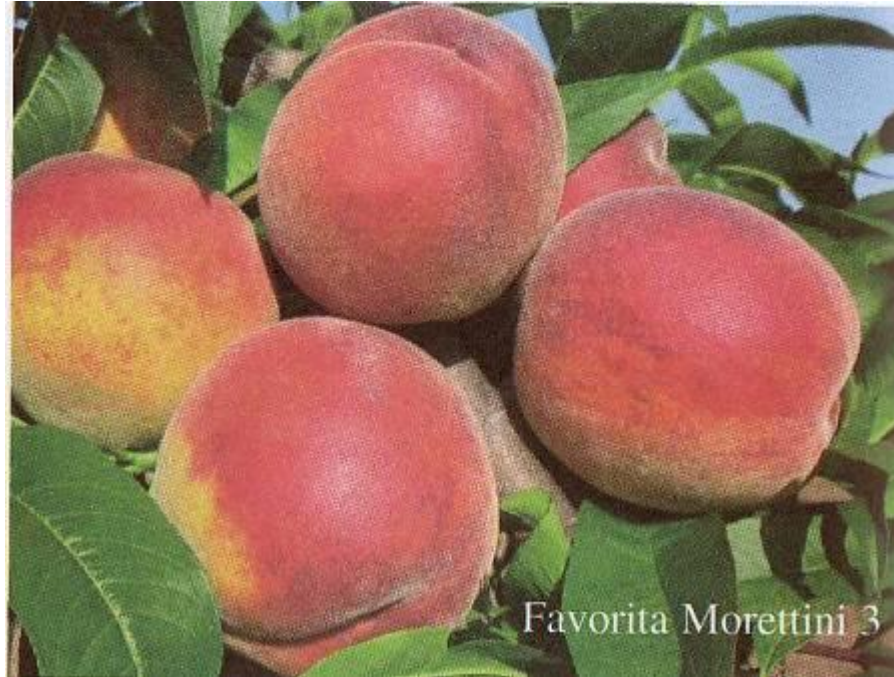
Nectarine: Smooth peel, flesh does not stick to the stone

Clingstone nectarine: Smooth peel, flesh sticks to the stone

“Peento”: Flat fruits



FAVORITA MORETTINI 3



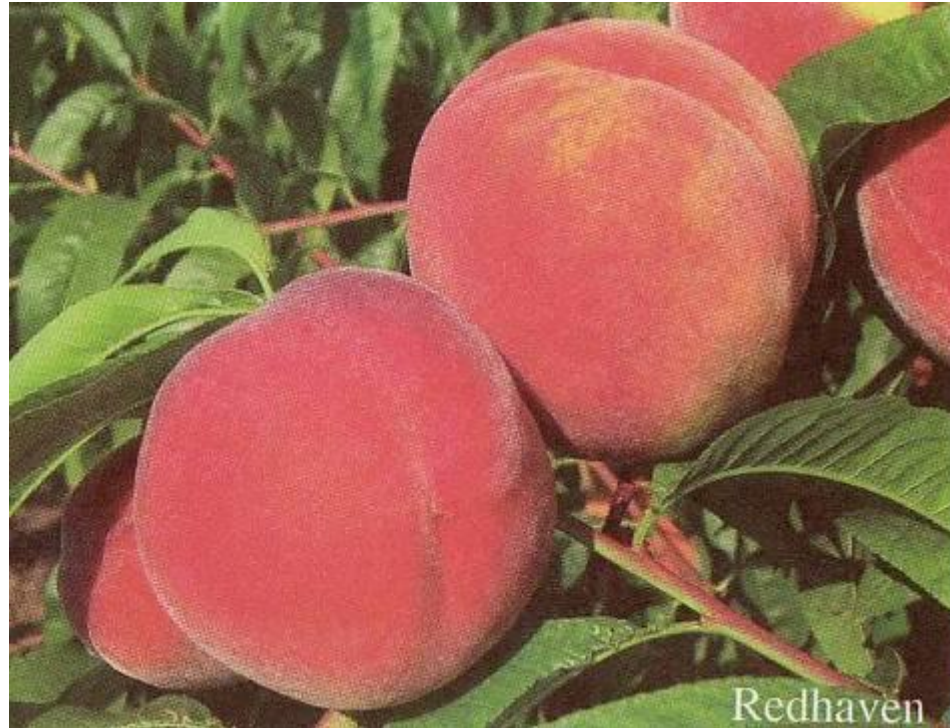
Early harvest, 15 days earlier than Redhaven variety

Characteristics: High resistance to frost damage, high productiveness

Requirements: Low

Use: Eat fresh

REDHAVEN



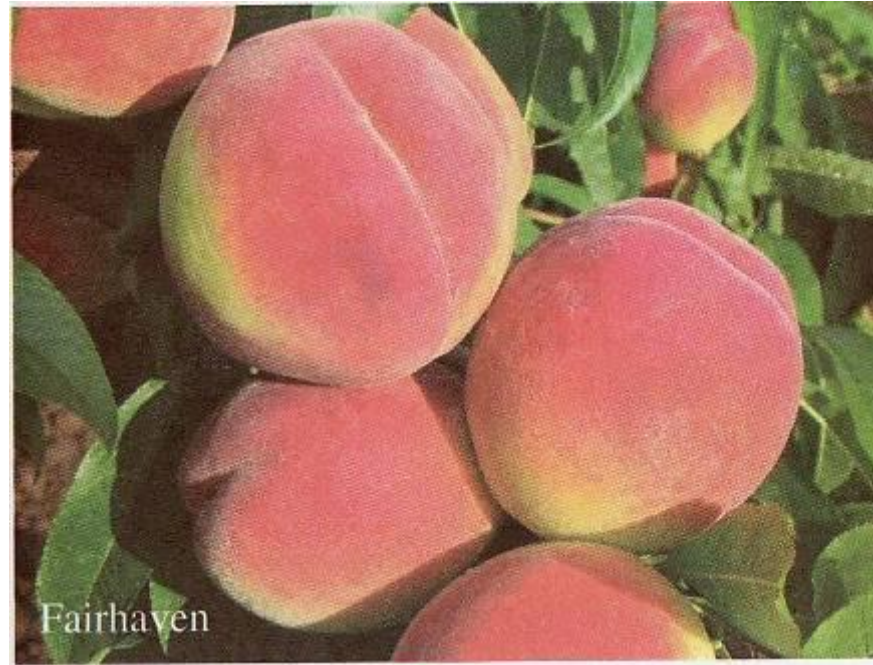
Harvest: Medium early, 5-10 Aug

Characteristics: High resistance to frost damage, high and regular productiveness

Requirements: Versatile variety

Use: Eat fresh

FAIRHAVEN



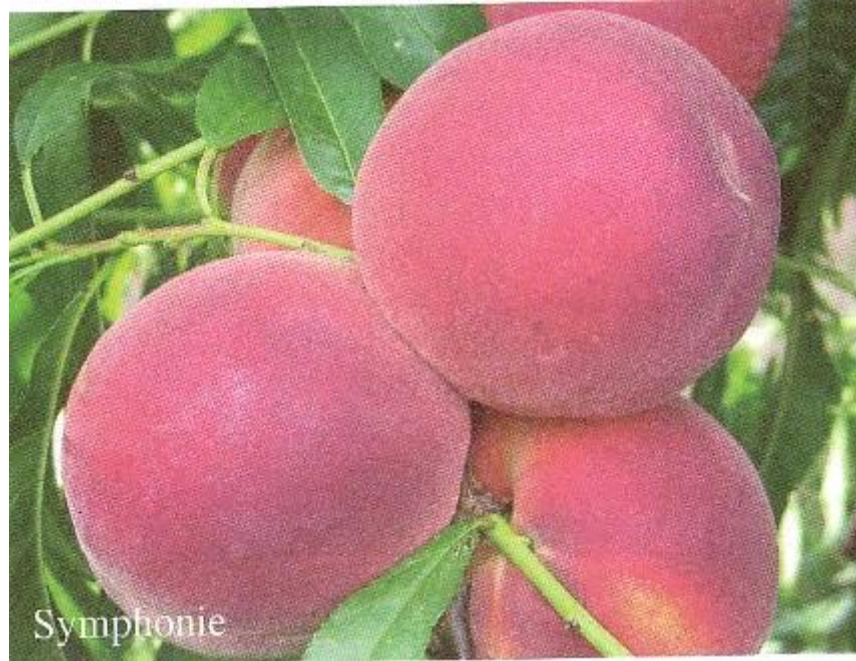
Late harvest, 10 days later

Characteristics: Mediocre resistance to frost damage, high productiveness

Requirements: Low

Use: Eat fresh; for preservation

SYMPHONIE



Late harvest, 20 days later

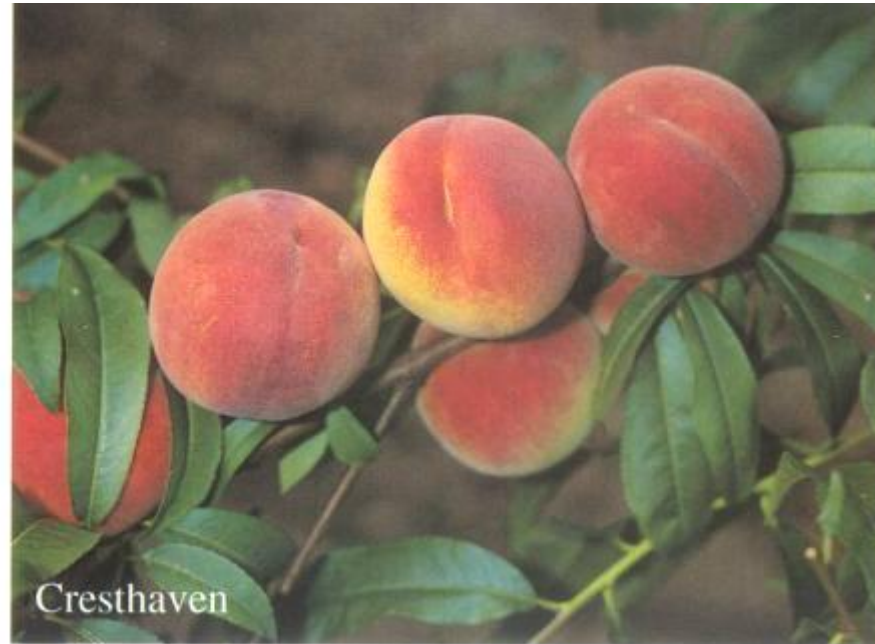
Characteristics: High resistance to frost damage, high productiveness

Attractive fruits

Requirements: Mediocre, sufficient irrigation

Use: Eat fresh, for preservation

CRESTHAVEN



Very late harvest, 30 days later

Characteristics: High resistance to frost damage, high productiveness

Excellent flavour

Requirements: Warm locations

Use: Eat fresh, for preservation

CATHARINE

- clingstone peach



Early harvest, 7 days earlier

Characteristics: Mediocre resistance to frost-damage, excellent flavour

Requirements: Mediocre, irrigation

Use: Eat fresh, preservation

FLAVORTOP

- nectarine



Harvest: Medium early

Characteristics: Mediocre resistance to frost-damage, excellent flavour

Requirements: High

Use: Eat fresh, table fruit