Prunus virginiana Rosaceae family

Choke cherry

Description: An erect to straggling, deciduous, bush to small tree, thicket-forming by rhizomes (clonal), generally 3-30 ft. or more tall. Stems up to 6 in. in diameter. *Prunus virginiana* has several recognized varieties in its distribution. It also has several cultivated varieties used for fruit and as ornamental plants.

Size: generally 3-30 ft. tall.

Bark: Gray to reddish-brown on young trees, and darker brown and furrowed on mature trees. Lenticels are conspicuous (raised horizontal rows of pores). Young stems having shallowly peeling, curling layers.

Stems: Spreading, numerous, slender. Twigs red-brown with pale lenticels.

Buds: Terminal buds 0.2-0.3 in. long, lateral buds slightly smaller. Bud scales are distinctive, with dark brown bases and lighter, silver-colored tips.

Leaves: Leaves alternate along the stems. Leaf lamina/blades simple, elliptic to obovate; 0.8-4 in. long, 0.5-2 in. wide, widest above the middle of the leaf; a short pointed apex; margins finely and sharply serrate. Upper surface glossy green, glabrous; lower surface dull green, glabrous to short-hairy. Petiole 0.4-1.0 in. long, slender, with 2 minute to prominent glands on each side at the base of the leaf blade. Distinguishes the plant from pin cherry, whose leaves are widest below the middle and taper gradually to a point.

Inflorescence: Clusters of flowers; loose, form 3-6 in. long terminal racemes; pedicel 0.2-0.3 in. long.

Flowers: Flowers white with 5 petals, almost round; 0.2-0.5 in. long, 0.2-0.3 in. wide; calyx tube 5-lobed; 20-30 stamens; aromatic.

Fruit: Drupes, in clusters; red, fleshy, with small stone; 0.2-0.6 in. long, ovoid to spheric; ripening to dark red to bluish-black. Edible but astringent.

Roots: A network of rhizomes and deep roots. May extend laterally 35 ft, and more than 6 ft. deep.

Habitat: Prefers to grow in aspen groves, scrub, oak/pine woodlands, coniferous forests; ravines, rocky slopes, canyons, and the edges of creeks. Mostly found on moist soils, but can be found in old fields, uncultivated field edges, and dry, exposed sites. Can also grow well on sandy soils. Chokecherry prefers full sun to partial shade and is intolerant of full shade. Can be a post-disturbance invader. May become weedy.

Species distribution in US states:

AR, AZ, CA, CO, CT, DC, IA, ID, IL, IN, KS, KY, MA, ME, MI, MN, MO, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

Species images:

Whole plant:
http://www.forestryimages.org/images/768x512/1208061.jpg
http://plant-life.org/Rosaceae/large/prunus_virg_lg.htm
Bark:
http://www.cas.vanderbilt.edu/bioimages/species/prvi.htm
http://www.cnr.vt.edu/dendro/dendrology/syllabus/factsheet.cfm?ID=238
Twig:
http://www.forestryimages.org/images/768x512/0008482.jpg
Leaf:
http://www.forestryimages.org/images/768x512/0008314.jpg
http://www.cas.vanderbilt.edu/bioimages/species/prvi.htm
Lower leaf surface:
http://www.forestryimages.org/images/768x512/1462004.jpg
http://www.uwgb.edu/BIODIVERSITY/herbarium/trees/pruvir_leaves04.jpg
Color change in leaves:
http://www.forestryimages.org/images/768x512/1375179.jpg
http://extension.usu.edu/forestry/UtahForests/TreeID/Assets/Images/pru-4.12.jpg
Buds:
http://www.uwgb.edu/BIODIVERSITY/herbarium/trees/pruvir_bud01.jpg
Inflorescence:
http://www.forestryimages.org/images/768x512/0008069.jpg
http://plant-life.org/Rosaceae/large/prunus_virg1_lg.htm
Flowers:
http://www.forestryimages.org/images/768x512/2127082.jpg
http://plant-life.org/Rosaceae/large/prunus_virg2_lg.htm
Flower details:
http://www.microscopy-uk.org.uk/mag/indexmag.html?http://www.microscopy-uk.org.uk/mag/bj-flowers.html
Fruit:

http://calphotos.berkeley.edu/cgi/img_query?query_src=photos_index&enlarge=0000+0000+0107+2185
http://www.swcoloradowildflowers.com/Tree%20Enlarged%20Photo%20Pages/padus%20virginiana.htm

Seeds:

http://www.ars-grin.gov/cgi-bin/npgs/acc/display.pl?1673902

Expected timing of growth stages:

Bud break/Leaf out: Spring (April in western Montana) to early summer, depending upon elevation and latitude. Full expansion as early as mid-May in western Montana.

Leaf/canopy development:

Flowering: Flowering occurs 1-3 weeks after leafs emerge. April-July, depending upon elevation and latitude.

Fruiting ripening: July to September. Fruits dehisce soon after maturity.

Leaf color: Leaves begin to change to autumn colors in late August in eastern Montana, mid-September in western Montana.

Leaf fall: Leaves start to fall from mid- to late September, and are fallen/withered by late September to mid-October in Montana.

Phenophases to be monitored for NPN:

Leaf out

- *First leaf*
  In at least 3 locations on the plant, the very first green tip of a young leaf has visibly moved out of the leaf bud.

Flowering

- *First flower*
  In at least 3 locations on the plant, a flower has opened completely. Flowers are considered ‘opened’ when the reproductive parts are visible between unfolded or opened flower parts.

- *Full flower* **[Intensive only]**
  The plant has reached its peak floral display. This occurs when half (50%) of the flowers on the whole plant have opened completely.

- *Last flower*

The last visible flower has opened completely and is still fresh.

Leaf elongation

Note: These measures can be difficult to estimate without a few seasons of practice.

- *25% leaf elongation* **[Intensive only]**
  The majority of young leaves have unfolded completely and have expanded to one-quarter (25%) of their mature size. Leaf elongation may also be estimated by viewing the canopy as a whole. At 25% leaf elongation, the canopy appears to be approximately one-quarter (25%) full.

- *50% leaf elongation* **[Intensive only]**
  The majority of young leaves have unfolded completely and have expanded to half (50%) of their mature size. Leaf elongation may also be estimated by viewing the canopy as a whole. At 50% leaf elongation, the canopy appears to be approximately half (50%) full.

- *75% leaf elongation*
  The majority of young leaves have unfolded completely and have expanded to three-quarters (75%) of their mature size. Leaf elongation may also be estimated by viewing the canopy as a whole. At 75% leaf elongation, the canopy appears to be approximately three-quarters (75%) full.

- *Full leaf elongation* **[Intensive only]**
  The majority of young leaves have unfolded completely and have expanded to 95-100% of their mature size. At full leaf elongation, the canopy appears to have reached its full density.

Fruit ripening

- *First fruit ripe*
  In at least 3 locations on the plant, a fruit has become ripe. In *Prunus virginiana*, a fruit is considered ripe when it is dark red or black in color, when it has dropped from the plant, or when it has been eaten by wildlife.

- *50% of fruit ripe* **[Intensive only]**
  For the whole plant, half (50%) of the fruits are ripe.

- *All fruit ripe* **[Intensive only]**
  For the whole plant, virtually all (95-100%) of the fruits are ripe.

Leaf color change

Note: If drought seems to be the cause of leaf color change for a plant, please make a comment about it for that plant.

- *First leaf colored* **[Intensive only]**
  In at least 3 locations on the plant, the green leaves have begun to change to their late season colors.

- *25% of leaves colored* **[Intensive only]**
  For the whole plant, one-quarter (25%) of the leaves (including any that have fallen to the ground) have changed to their late season colors.

- *50% of leaves colored*
  For the whole plant, half (50%) of the leaves (including any that have fallen to the ground) have changed to their late season colors.

- *75% of leaves colored* **[Intensive only]**
  For the whole plant, three-quarters (75%) of the leaves (including any that have fallen to the ground) have changed to their late season colors.

- *All leaves colored*
  For the whole plant, virtually all (95-100%) of the leaves (including any that have fallen to the ground) have changed to their late season colors and there is virtually no green left in the leaves.

Leaf fall

Note: If drought seems to be the cause of leaf fall for a plant, please make a comment about it for that plant.

- *First leaf fallen* **[Intensive only]**
  In at least 3 locations on the plant, a leaf easily falls off into your hand when touched or gently handled. First leaf fallen may also be indicated by the presence of at least 3 leaves on the ground below the plant (that are not apparently from another individual nearby).

- *25% of leaves fallen* **[Intensive only]**
  For the whole plant, one-quarter (25%) of the leaves have fallen.

- *50% of leaves fallen*
  For the whole plant, half (50%) of the leaves have fallen.

- *75% of leaves fallen* **[Intensive only]**
  For the whole plant, three-quarters (75%) of the leaves have fallen.

- *All leaves fallen*
  For the whole plant, virtually all (95-100%) of the leaves have fallen.

Did you know? Chokecherry provided a staple for Native American tribes. Chokecherry was first cultivated in North America as an orchard crop in 1724. Prussic (hydrocyanic) acid is found in the bark, leaves and pits of chokecherry. Cattle have died from eating chokecherry. The acid in chokecherry pits is neutralized by boiling or drying. The bark is used as a tea. The fruit is used to make jellies and jams.

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http://www.uwgb.edu/BIODIVERSITY/herbarium/trees/pruvir_leaves04.jpg
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Notes

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