A PRACTICAL FIELD AND GARDEN HANDBOOK

Identifying Edible Plum Species

by habit, leaf, bark, flower, fruit, stone, and range

True plums belong to *Prunus* L. subgenus *Prunus*. Two lineages matter in the field. Old World plums (section *Prunus*) include European plum, Japanese plum, cherry plum (myrobalan), sloe, damson, bullace, mirabelle, and greengage. North American plums (section *Prunocerasus* Koehne) include American, Canada, Chickasaw, hortulan, wild-goose, beach, Mexican, Allegheny, and Pacific plums. Grocery dessert fruit is almost always European (*P. domestica* L.) or Japanese (*P. salicina* Lindl. and its hybrids). Fruit picked from a thicket is usually a native American species, a naturalized cherry plum, or — in Europe — sloe, damson, or bullace.

Common names wander. “Goose plum,” “wild plum,” and “sloe” each attach to more than one taxon. This guide always pairs the current scientific name with the names you will actually hear. Plates are public-domain taxonomic drawings (Britton & Brown 1913, Thomé, Sturm, Curtis’s *Botanical Magazine*, Hough 1907, Flora Batava), drawn to show the characters a key uses.

How to use the plates. Read them in this order: (1) habit and thorns; (2) leaf outline, teeth, and whether the upper surface is scabrous or glossy; (3) whether flowers open on bare wood or with the leaves; (4) fruit size, shape, and bloom; (5) the stone in face and edge view — turgid vs flattened, pointed vs blunt. Fruit color is the last character, not the first.

1. First confirm it is a plum

- **Leaves** simple, alternate, toothed; never compound and almost never lobed.
- **Flowers** 5 white (rarely pink) petals in clusters of 1–5, not long hanging racemes.
- **Fruit** a single-stoned drupe with a groove (suture) down one side. One pit. Not 2–5 nutlets (hawthorn) and not a string of many small fruits (black cherry, chokecherry).
- **Twigs** with a true terminal bud. Some species have spine-tipped short shoots that still carry a bud — unlike hawthorn thorns.
- **Crushed leaf or bark** often smells faintly of bitter almond (cyanogenic glycosides). Typical of *Prunus*, not unique to plums.
- **Do not eat pits, seeds, or wilted leaves.** Ripe flesh of the taxa below is edible. Stones and wilted foliage contain cyanogenic compounds.

Look-alikes that are not plums. Chokecherry and black cherry (*P. virginiana*, *P. serotina*) carry flowers and fruit in long racemes. Pin cherry has tiny fruit in umbels and very narrow leaves. Hawthorns have lobed leaves and several seeds per fruit. Crabapples have a core of several seeds, not one stone. Peaches and most apricots are fuzzy. Sand cherries (*P. pumila*, *P. besseyi*) are low shrubs with small cherry-like fruit; close relatives, treated separately from the plums in this guide.

2. The characters that separate species

Section membership is the first split. Old World section *Prunus* has leaves **convolute** (rolled) in bud. American section *Prunocerasus* has leaves **conduplicate** (folded lengthwise) in bud. In practice you rarely see the bud; you use thorns, leaf width and surface, flower timing, fruit size, and the stone.

Group	Section	Leaf in bud	Ploidy	Taxa in this guide
Old World plums	sect. *Prunus*	convolute (rolled)	2x, 4x, or 6x	*spinosa*, *cerasifera*, *salicina*, *domestica* incl. damson, mirabelle, gage
American plums	sect. *Prunocerasus*	conduplicate (folded)	2x (2n = 16)	*americana*, *nigra*, *angustifolia*, *hortulana*, *munsoniana*, *maritima*, *mexicana*, *alleghaniensis*, *subcordata*

Ploidy governs crossing. Diploids (American plums, cherry plum, Japanese plum) can set seed with each other when bloom overlaps. Hexaploid European plum, damson, mirabelle, and greengage stay inside the 6x group. Sloe is tetraploid. Graft unions are much more forgiving than seed set — see the matrices in section 16.

3. Quick comparison

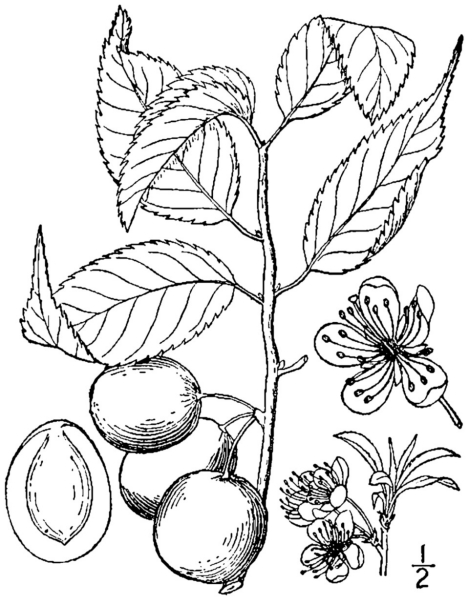
Taxon	Habit / thorns	Leaf	Flowers	Fruit / stone
P. americana **American plum**	Thicket, spur-thorns	Ovate, often **scabrous** above, sharp serrate	With or just before leaves, 2–5	15–25 mm globose; stone turgid, blunt
P. nigra **Canada plum**	Small tree, fewer suckers	Broader, coarse **gland-tipped** teeth	Before/with leaves, larger	Oblong 20–30 mm; stone **pointed both ends**
P. angustifolia **Chickasaw**	Low thicket, slender thorns	**Narrow** 3–6 cm, glossy, folded	Very early, on bare wood, tiny	12–20 mm early; small turgid clingstone
P. hortulana **Hortulan**	Tree, nearly unarmed	Long-acuminate, **glossy**, glandular petiole	With the leaves, many-flowered	Late, dotted, firm; flattened stone
P. munsoniana **Wild-goose**	Slender colonial shrub	Narrower shining leaf	With leaves	Earlier, thin-skinned, very juicy
P. maritima **Beach plum**	Low dune shrub	Thick obovate, dull, impressed veins	With unfolding leaves	12–25 mm, heavy bloom; turgid stone
P. mexicana **Mexican plum**	Unarmed small tree, no thicket	Ovate, dark scaly bark	On short spurs	20–30 mm late
P. alleghaniensis **Allegheny**	Slender Appalachian shrub	Lance-ovate, fine teeth	Small, early	10–15 mm dark purple
P. subcordata **Pacific plum**	Shrub/tree of interior West	Ovate, **subcordate base**	With leaves	15–25 mm red or yellow
P. cerasifera **Cherry plum**	Unarmed small tree	Rhombic-ovate, glossy (or purple)	**Bare wood**, earliest town tree	15–30 mm thin-skinned; small smooth stone
P. salicina **Japanese plum**	Unarmed orchard tree	Oblong, shiny, long-pointed	Bare wood, 1–3 wk before European	4–7 cm, often pointed; stone small for fruit
P. domestica **European plum**	Unarmed or weakly armed tree	Dull elliptic, hairy midrib beneath	**With the leaves**, later	3–8 cm; stone flattened, often free
insititia **group Damson / bullace**	Often a few thorns	Smaller, dull, pubescent beneath	With the leaves	2–3 cm blue-black; cling, sculptured stone
subsp. *syriaca* **Mirabelle**	Unarmed	Small dull leaf	With the leaves	2–3 cm golden, fragrant
P. spinosa **Sloe / blackthorn**	Impenetrable thorn thicket	Obovate 2–4 cm, after flowers	Bare black wood, foam of tiny flowers	10–15 mm, fierce until frost; globose pitted stone

4. A short field key

- 1a. Impenetrable shrub; twigs dull black, ending in true thorns; flowers on bare wood before the tiny obovate leaves; fruit ≤15 mm, mouth-puckering until frost → **sloe, *P. spinosa***.
- 1b. Not that combination → 2.
- 2a. Flowers open on leafless wood, early; tree essentially unarmed; leaves glossy rhombic-ovate (green or purple); fruit 15–30 mm, thin-skinned → **cherry plum, *P. cerasifera***.
- 2b. Flowers with the leaves, or plant colonial and thorny, or fruit larger → 3.
- 3a. Cultivated orchard tree, fruit 3–8 cm → 4.
- 3b. Wild or feral shrub/small tree, fruit usually ≤3 cm → 5.
- 4a. Bloom with unfolding leaves; leaf dull, hairy on midrib beneath; stone flattened → **European plum / gage / prune, *P. domestica***. Small oval blue-black cling fruit → damson. Small golden fragrant fruit → mirabelle.
- 4b. Bloom on bare wood 1–3 weeks earlier; leaf shiny, long-pointed; fruit often heart-shaped or pointed → **Japanese plum, *P. salicina*** and hybrids.
- 5a. Atlantic dunes; thick dull obovate leaves with impressed veins → **beach plum, *P. maritima***.
- 5b. Interior West; leaf base subcordate → **Pacific plum, *P. subcordata***.
- 5c. Southern/midwestern unarmed tree that does not sucker into thickets; dark scaly bark → **Mexican plum, *P. mexicana***.
- 5d. Low southern thicket; leaves only 3–6 cm, glossy, narrow → **Chickasaw, *P. angustifolia***.
- 5e. Nearly unarmed tree; long-acuminate glossy leaves; late firm dotted fruit → **hortulan, *P. hortulana***.
- 5f. Broader scabrous or coarsely toothed leaves; colonial → 6.
- 6a. Stone pointed at both ends; coarse gland-tipped teeth; oblong fruit → **Canada plum, *P. nigra***.
- 6b. Stone turgid and blunt; upper leaf often rough; globose fruit → **American plum, *P. americana***.
- 6c. Appalachian; fruit 10–15 mm dark purple → **Allegheny plum, *P. alleghaniensis***.

5. American plum — *Prunus americana* Marshall

Section Prunocerasus · 2n = 16 · type of the American wild plums



Britton & Brown / USDA line drawing. Ovoid serrate leaves, umbel, globose fruit, turgid stone at ½ scale.

Hough 1907 photo-descriptive plate: live leaves, fruit cluster, halved fruit, loose stones.

Habit and bark. Colonial shrub or small tree 2–8 m, forming root-sucker thickets along fencerows, draws, and woodland edges. Twigs zigzag, often ending in spur-thorns (modified short shoots that may still carry a bud). Young bark reddish-brown with pale lenticels; older bark dark gray-brown, breaking into scaly plates. Wood hard, close-grained, reddish brown.

Leaf. Blade ovate to oblong-ovate, 6–10 cm long, abruptly acuminate at the tip, cuneate to rounded at the base. Margin sharply and often doubly serrate; teeth not as coarse or as consistently gland-tipped as in *P. nigra*. The **upper surface is often scabrous** (sandpapery) at maturity — the most useful touch-character against glossy hortulan and Chickasaw. Petiole 8–20 mm, usually with one or two small glands near the blade. Leaves folded (conduplicate) in bud.

Flower. April–May, opening with or just before the leaves — not a foam of bloom on black bare wood (that is sloe or cherry plum). Umbels of 2–5. Pedicels glabrous or nearly so. Petals white, 8–14 mm. Hypanthium cup-shaped. Ovary glabrous.

Fruit and stone. Drupe 15–25(–30) mm, globose to short-oval, red, orange-red, or yellow, with a light bloom and a visible suture. Flesh tart-sweet when dead-ripe, often cling or semi-cling. Stone **turgid** (plump), oval, only slightly compressed, shallowly pitted, not sharply winged and not pointed at both ends. That stone separates it from Canada plum on the same hillside.

Range and habitat. Central and eastern North America: roughly New England and southern Ontario west to the Dakotas and south into the southern Plains and interior South. Thickets, stream banks, woodland edges, old fencerows. Many Intermountain records are settler plantings that persist and sucker.

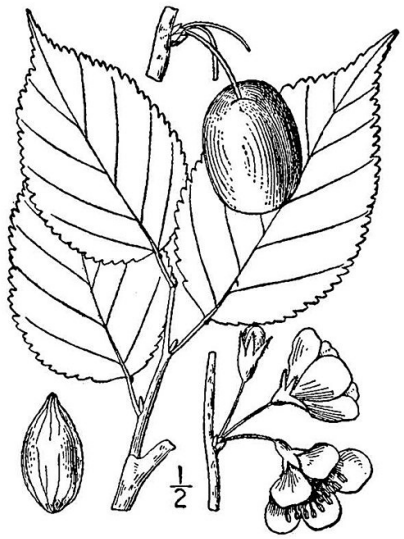
Not this plant. *P. nigra* — coarser glandular teeth, oblong fruit, stone pointed both ends. *P. angustifolia* — much narrower glossy leaves, earlier smaller fruit. *P. hortulana* — unarmed tree, long-acuminate glossy leaves, late firm dotted fruit. Escaped *P. cerasifera* — blooms on bare wood, rhombic glossy leaves. Chokecherry — racemes.

Horticulture.

- **Climate.** USDA zones 3–8. High chill. Late enough bloom to be safer than Japanese types in frost pockets, earlier than European plum.
- **Soil.** Tolerant of a wide range; chlorotic on high-pH Utah soils unless iron is supplied (FeEDDHA).
- **Pollination.** Self-unfruitful. Plant two American-plum clones or a diploid hybrid of matching bloom (Toka, Superior).
- **Rootstocks.** Own-root suckers freely (useful for a hedge, a nuisance in a lawn). Scions take on Myrobalan 29C, Mariana 2624, and American seedlings. Peach is a poor match.
- **Pruning.** Fruit on one-year wood and short spurs. Open a vase or let a thicket and harvest the edge.
- **Pests.** Plum curculio, brown rot, black knot, aphids. Same spray or sanitation calendar as other plums.
- **Cultivars / uses.** De Soto, Hawkeye, Weaver, Blackhawk. Outstanding jelly. Parent of hardy *salicina* hybrids. Wildlife and hedgerow plant.

6. Canada plum — *Prunus nigra* Aiton

Section Prunocerasus · 2n = 16 · northern counterpart of American plum



USDA-NRCS / Britton & Brown. Broad coarsely toothed leaf, oblong fruit on a spur, stone drawn pointed at both ends — the species character.

Habit and bark. Small tree 4–10 m, less aggressively colonial than American plum but still suckering. Bark pale gray-brown, peeling in papery plates that curl back and expose inner bark — more “flaky” than *americana*.

Leaf. Broadly ovate, 6–12 cm, base rounded to subcordate. Margin coarsely and often doubly serrate; teeth **gland-tipped** (hand lens). Less scabrous above than American plum. This is a wider, coarser leaf.

Flower. Before or with the leaves. Petals 10–15 mm, sometimes pink-tinged, larger than typical *americana*.

Fruit and stone. Oblong-oval, 20–30 mm, orange-red, little bloom. Stone **compressed and pointed at both ends**. If you have the pit, you can name the tree.

Range. More northern: Newfoundland and the St. Lawrence west through the upper Midwest, south in the northern Appalachians. Rich, moist soils. Does not replace American plum on the southern Plains.

Horticulture. Zones 3–6. Crosses with American plum and with diploid Japanese hybrids of matching bloom. Jelly plum and a parent in hardy-hybrid breeding. Same stocks as American plum (Myrobalan, Mariana, own seedling).

7. Chickasaw plum — *Prunus angustifolia* Marshall

Section Prunocerasus · 2n = 16 · the southern thicket plum

Britton & Brown 1913. The name on the page: narrow leaves, small flowers on a leafless twig, small globose fruit, sectioned stone. Scale ½.

Habit. Low colonial shrub 1–4(–6) m, often in sandy old fields and roadsides. Slender reddish twigs with small spur-thorns.

Leaf. Lanceolate, **3–6 × 1–2.5 cm**, glossy above, finely crenate-serrate, folded upward from the midrib when young. The narrowest common plum leaf in eastern North America — the epithet *angustifolia* is honest.

Flower. Very early, on bare wood (February in the Deep South, March–April farther north). Petals only 4–8 mm.

Fruit and stone. 12–20 mm, globose, red or yellow, thin skin, among the earliest wild plums to ripen. Small turgid, nearly smooth clingstone.

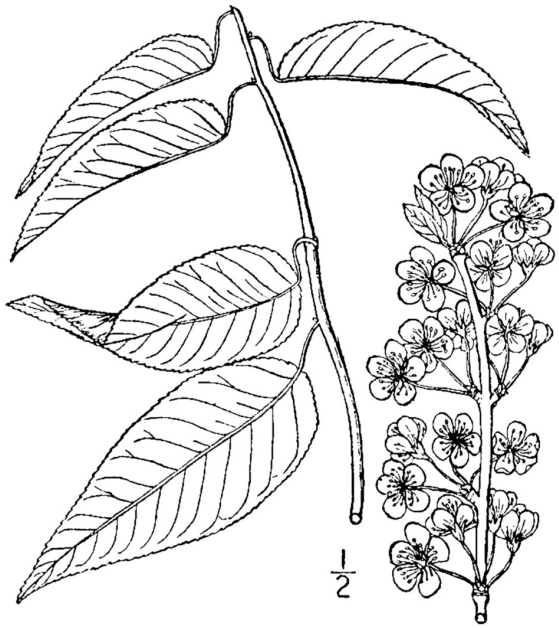
Range. Delaware and Kentucky south across the Coastal Plain and southern Plains. Sandy fields, roadsides, open woods. **Not a Utah wild plant** and a poor bet north of zone 5 without a warm wall.

Horticulture. Zones 5–9, low chill. Bruce is usually treated as a hortulan–Chickasaw hybrid. Southern jelly plum and an occasional rootstock. Own-root suckers are the typical planting.

8. Hortulan plum — *Prunus hortulana* L.H. Bailey

and wild-goose plum — *Prunus munsoniana* W. Wight & Hedrick

Section Prunocerasus · 2n = 16 · the "goose plum" problem



Britton & Brown 1913, P. hortulana. Long-acuminate finely serrate leaves and a many-flowered shoot. Almost no thorns drawn — correct.

"Goose plum" is ambiguous. In Midwestern speech it is often American plum (*P. americana*). In pomology, Wild Goose is *P. munsoniana*, named for a Tennessee seedling said to have come from a pit in a goose's crop. Hortulan is a third, later-ripening tree. Use the Latin name on the bag.

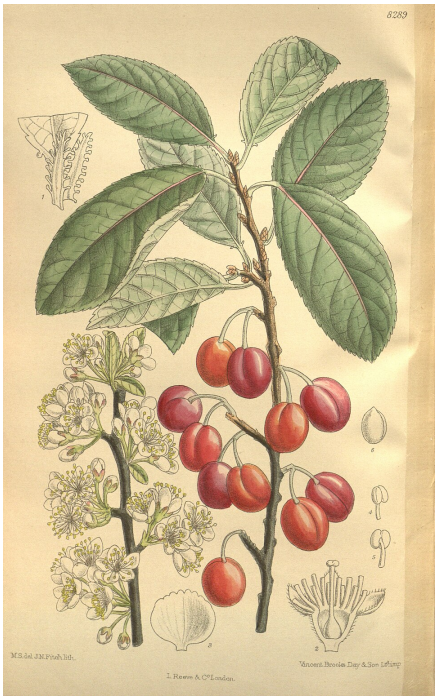
Hortulan. Tree-like, 5–10 m, nearly unarmed. Leaves 7–12 cm, **long-acuminate and glossy**, with conspicuous glands on the petiole. Flowers open with the leaves, often more than 5 per cluster. Fruit late (August–October), 20–30 mm, red with pale dots, thick skin, firm enough to keep. Stone flattened. Mississippi Valley bottoms and limestone country.

Wild-goose (*P. munsoniana*). More slender and colonial than hortulan; narrower shining leaves; earlier, thinner-skinned, very juicy red or yellow fruit. South-central United States. Old cultivars: Wild Goose, Gonzales, Moreman.

Horticulture. Zones 5–8. Late hortulan fruit keeps and ships better than most American plums; goose-type fruit is a jelly plum. Both graft on Myrobalan and Mariana and cross with Japanese diploids. Mariana 2624 itself is *cerasifera* × *munsoniana*.

9. Beach plum — *Prunus maritima* Marshall

Section Prunocerasus · 2n = 16 · Atlantic dune specialist



Curtis's Botanical Magazine t. 8289 (M.S. del., J.N. Fitch lith.). Thick obovate crenate leaves with impressed veins, dense flower clusters, globose fruit, stone, floral dissections.

Habit. Low, stiff dune shrub 0.5–2.5 m, sometimes taller in shelter. Branches contorted by wind and salt.

Leaf. Obovate, 3–7 cm, **thick and dull**, crenate, veins impressed above; underside often pubescent. Nothing like the thin glossy leaf of Chickasaw or hortulan.

Flower. With the unfolding leaves. Pedicels pubescent. White, in dense clusters that can cover the bush.

Fruit and stone. 12–25 mm, globose, red-purple to blue-black, heavy bloom. Quality varies wildly from bush to bush — the reason named clones exist. Turgid oval stone.

Range. Coastal Maine to Maryland, on dunes, swales, and the back side of barrier beaches. A habitat specialist. Absent from Utah and from inland floras generally.

Horticulture. Zones 3–7. Full sun, sand, salt, drought once established. Self-incompatible; plant several clones (Jersey, Autumn, Stearns, Premier). Famous jelly. Own-root seedlings are the usual crop; grafting is possible but unnecessary. Do not expect it to thrive in heavy alkaline soil.

10. Allegheny, Mexican, and Pacific plums

Three additional native species people eat when they find them

Britton & Brown / USDA. Prunus alleghaniensis — lance-ovate finely serrate leaves, small flowers, small globose fruit and stone.

Allegheny plum — *P. alleghaniensis* Porter. Slender Appalachian shrub of shale and sandstone. Leaves lance-ovate, finely serrate. Fruit 10–15 mm, dark purple with bloom, tart. Uncommon; do not strip small stands. Zones 5–7. Of conservation interest more than of orchard interest.

Mexican plum — *P. mexicana* S. Watson. Unarmed small tree of Texas and the south-central plains. Does **not** make americana-style sucker thickets — a single trunk or a few stems, dark scaly bark, fruit 20–30 mm on short spurs, late. Dooryard and rootstock tree in Texas. Zones 6–9.

Pacific / Klamath plum — *P. subcordata* Benth. Interior Oregon, northern California, adjacent Nevada. Leaves ovate with a **subcordate** base — the epithet. Red or yellow fruit 15–25 mm, variable in quality. The native plum a forager meets west of the Sierra–Cascade crest. Not a Utah native (Utah's wild *Prunus* of canyons is almost always chokecherry). Zones 5–8. Local jelly and cider fruit.

11. Cherry plum / myrobalan — *Prunus cerasifera* Ehrh.

Section Prunus · 2n = 16 · the escaped street tree and the default rootstock

Curtis's Botanical Magazine t. 5934 (1871), W.H. Fitch. Flowers in a mass on bare wood, glossy rhombic-ovate leaves, small glossy red fruit, thin flesh, small stone.

Habit. Unarmed small tree 4–8 m (thorny only in sloe hybrids). Purple-leaved 'Pissardii', 'Nigra', and 'Thundercloud' are this species, not a separate one.

Leaf. Rhombic-ovate, 3–7 cm, crenate, glossy; bronze to deep purple in ornamental clones. Petiole short. Not scabrous, not narrow-lanceolate, not thick-obovate.

Flower. The first tree to whiten a town, on bare wood, often two weeks before European plum. From the road it can look like sloe; walk up — the twigs are not a thorn thicket, and the petals are larger.

Fruit and stone. 15–30 mm, yellow to cherry-red (or dark in purple clones), thin-skinned, sweet-tart, often abundant. Small smooth stone. The fruit of street trees is edible; quality varies.

Range. Native from the Balkans through the Caucasus and Central Asia. Planted worldwide. Escapes along ditches, lots, and riparian strips, including lower elevations of the Wasatch Front.

Horticulture.

- **Climate.** Zones 4–9. Low to moderate chill. Early bloom is a frost risk for a fruit crop, irrelevant for a rootstock.
- **Rootstock use.** Myrobalan seedling and Myrobalan 29C are the default North American plum stocks. Mariana 2624 = *cerasifera* × *munsoniana*, better on wet feet and *Armillaria*.
- **Pollination.** Diploid; will pollenize Japanese plums of overlapping bloom. Purple-leaf ornamentals often fruit if a diploid pollinizer is in the neighborhood.
- **Uses.** Fresh eating when good, jam, the Georgian sauce tkemali, and the understock that carries most of the world's plum orchards.

12. Japanese plum — *Prunus salicina* Lindl.

Section Prunus · 2n = 16 · grocery "Japanese" fruit is usually a hybrid

Field bloom of P. salicina. Leafless shoots, white umbels, often a reddish calyx. Most named cultivars are hybrids with P. cerasifera, P. simonii, and/or P. americana.

Habit. Unarmed orchard tree 4–7 m. Twigs glossy reddish-brown, more "finished" than American plum.

Leaf. Oblong-obovate to lanceolate, 6–12 cm, long-pointed, **shiny** above, often with a reddish petiole. Finely serrate. Not dull, not scabrous, not tiny.

Flower. Before the leaves, **one to three weeks earlier than European plum** in the same orchard. That gap is the frost problem in Utah and other interior valleys. Clusters of 2–3(–5).

Fruit and stone. Modern cultivars 4–7 cm, often pointed or heart-shaped, red, black, or yellow, light bloom, cling or semi-free. Stone small relative to the fruit — a pomological, not a wild, character.

Horticulture.

- **Climate.** Zones 5–9. Chill 200–800 hours by cultivar. Early bloom limits the crop north of warm benches.
- **Pollination.** Almost all self-unfruitful. Need another diploid with overlapping bloom (another Japanese type, cherry plum, or a diploid hybrid). European plums will not pollenize them.
- **Rootstocks.** Myrobalan 29C, Mariana 2624, Citation. Peach only on warm, well-drained, non-alkaline ground — a California pattern and a chlorosis failure in the Intermountain West.
- **Pruning.** Fruit on one-year shoots, not the European spur habit. Renew wood; do not let the head pack with old spurs.
- **Pests.** Curculio, brown rot, bacterial spot (worse than on European types), aphids, gophers on young trees.
- **Cultivars.** Santa Rosa, Satsuma, Shiro, Methley, Friar, Howard Miracle. Hardy hybrids for cold sites: Toka, Superior, Underwood (americana or simonii blood).

13. European plum — *Prunus domestica* L.

Section Prunus · 2n = 48 (hexaploid) · prunes, gages, and most "blue plums"

An allopolyploid out of the *cerasifera–spinosa* complex. Greengages (subsp. *italica* (Borkh.) Gams) and prune types belong here. Flora of North America lumps damson into this species without infraspecific rank; Kew still accepts *P. insititia* L. for damson/bullace. Field characters of the small-fruited plants are kept separate in the next account.

Habit. Unarmed or only weakly armed small tree 4–10 m. Twigs often pubescent when young. Suckers from the rootstock more often than from the scion.

Leaf. Elliptic to obovate, 4–10 cm, **dull**, crenate-serrate, hairs along the midrib beneath. Petiole 6–20 mm, glands present or not. Nothing like the glossy Japanese leaf.

Flower. With the leaves — later than Japanese and cherry plum. White, petals 7–14 mm, 1–2 per node. This later bloom is why European types are the safer orchard plum in frost-prone interior valleys.

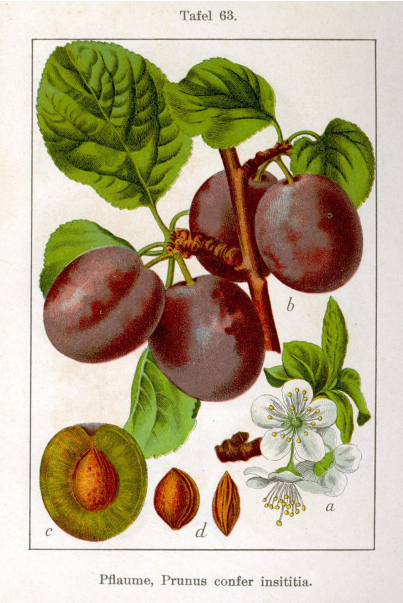
Fruit and stone. Oval prune types to round dessert types, 3–8 cm, blue-black, red, yellow, or green, conspicuous bloom. Stone **flattened**, often pitted, free in prune types (Italian, Stanley, President), cling in some dessert types. Greengage: round green-amber fruit, best flavor, poor shipper; treat as European plum horticulturally.

Horticulture.

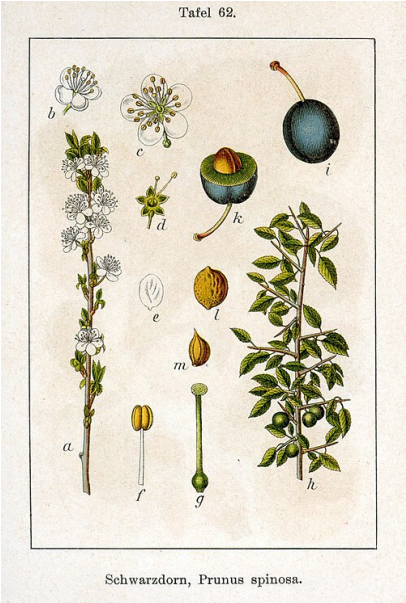
- **Climate.** Zones 4–8. High chill. The default recommendation for northern Utah and similar climates.
- **Pollination.** Hexaploid. Pollinize with another hexaploid (Stanley × Italian is the classic pair). Santa Rosa will not do the job.
- **Rootstocks.** Myrobalan 29C, Mariana 2624, St. Julien A, Pixy (dwarfing). Peach only on drained warm ground.
- **Pruning.** Fruit on spurs on two-year-plus wood. Build a permanent framework; thin the spurs, do not constantly renew as you do Japanese types.
- **Pests.** Curculio, brown rot, black knot, aphids, peach tree borer at the graft. Bacterial spot is usually milder than on Japanese types.
- **Cultivars.** Stanley, Italian, President, Mount Royal, Green Gage, Brooks, Valor, Earliblue. Prunes are dried *domestica*, not a separate species.

14. Damson, bullace, and mirabelle

P. domestica subsp. insititia (L.) C.K. Schneid. / P. insititia L. · P. domestica subsp. syriaca (Borkh.) Janchen · hexaploid



Sturm, Deutschlands Flora, Tafel 63, labeled "Pflaume, Prunus confer insititia": dull crenate leaves, flowers with the leaves, bloom-covered fruit, clingstone, sculptured stone in two views.



Sturm sloe plate at the same scale: tiny obovate leaves and pea-sized fruit. Use the two plates together when a hedgerow plant sits between damson and sloe.

Fruit-only rule of thumb, then check the plant. Small, round, blue-black, fierce = sloe. Bigger and rounder, still tart = bullace. Larger, oval, plum-like, cookable = damson. Small, golden, fragrant = mirabelle. Yellow cherry plum is a different species (diploid, glossy leaf, bare-wood bloom).

Damson. Shrub or small tree, often with a few thorns on vigorous shoots. Smaller dull leaves, pubescent beneath. Fruit 2–3 cm, blue-black, heavy bloom, astringent raw, excellent cooked. Cling, flattened-oval sculptured stone. Named clones: Shropshire, French Damson, Farleigh. St. Julien rootstocks are damson-type selections.

Bullace. Rounder fruit, often later, more astringent; habit intermediate toward sloe but fruit larger than *P. spinosa* and leaves larger. Hedgerow plant of Britain and western Europe; rarely named in North American orchards.

Mirabelle. Unarmed. Small dull leaves. Fruit 2–3 cm, golden, often red-dotted, fragrant. Lorraine origin (Mirabelle de Nancy, de Metz). Hexaploid, later bloom than cherry plum, duller leaf — not a yellow myrobalan.

Horticulture. Damsons are among the toughest European plums (zones 4–8), productive in cold summers, and the reason “St. Julien” exists as a stock. Jam, cheese, baking, eau-de-vie. Pollinize within the hexaploid group. Same stocks as European plum.

15. Sloe / blackthorn — *Prunus spinosa* L.

Section Prunus · 2n = 32 (tetraploid) · the European hedgerow plum

Thomé, Flora von Deutschland. The essential plate: thorned leafless flowering shoot; flower face and section; petal; stamen; ovary; stone; fruit section; leafy fruiting shoot with blue-black bloomed drupes.

Flora Batava vol. 6 (1832). Flowering and fruiting shoots, stone, floral analysis. Public-domain Dutch plate of the same species.

Billeder af Nordens Flora, plate 313 — "Slaaentorn, Prunus spinosa." Scandinavian colored plate: habit of the flowering thorn, leaf, fruit, and stone.

If a North American thicket matches the Thomé plate exactly — black thorned twigs, flowers on bare wood, tiny obovate leaves after the bloom, pea-sized frost-softened fruit — it is planted or escaped blackthorn, not a native plum.

Habit. Impenetrable suckering shrub 1–4 m. Dull **blackish** twigs ending in true thorns. The classic cattle-proof hedge of Atlantic Europe.

Leaf. Obovate, **2–4 cm**, finely crenate, unfolding **after** the flowers. Smallest leaf in this guide.

Flower. March–April on bare wood; petals 5–8 mm. The white foam along European field edges.

Fruit and stone. 10–15 mm, globose, bloom so heavy the fruit looks gray until rubbed. Green and fierce until frosted or frozen. Stone globose, pitted, cling. Sloe gin, sloe vodka, traditional medicine, not a dessert fruit.

Range. Europe and western Asia. Locally escaped in northeastern North America and the Pacific Northwest. **Not established in Utah floras.**

Horticulture. Hedge and wildlife plant, not an orchard tree. Too thorny and suckering for a stock you want to live with. Do not use it to pollenize Japanese dessert plums. Tetraploid: seed set with diploids and hexaploids is not an orchard plan.

16. Crossing and grafting

Two different questions are mixed in garden talk. **Will it set seed?** depends on ploidy and bloom overlap. **Will the graft live?** is broader. A tree can carry a scion that could never pollenize it.

Sexual crossing (seed)

Seed parent →	cerasifera 2x	salicina 2x	americana group 2x	spinosa 4x	domestica 6x
P. cerasifera 2x	Yes	Yes, free	Yes	Historic, rare seed	No / sterile
P. salicina 2x	Yes, free	Yes	Yes (Toka, Superior)	No	No
American sect. 2x	Yes	Yes	Yes within section	No	No
P. spinosa 4x	Rare historic	No	No	Yes	Rare, odd ploidy
P. domestica 6x	No	No	No	Rare	Yes (incl. damson, mirabelle, gage)

Diploid × diploid works: cherry plum × Japanese freely; Japanese × American is how Toka, Superior, and many “native hybrids” exist. Hexaploid *domestica* (including damson, mirabelle, gage) stays inside 6x. Sloe × cherry plum is the historic path into the domestica complex, not a pollen plan for a backyard. Stanley will not set Santa Rosa.

Graft compatibility (union)

Scion ↓ / stock →	Myrobalan 29C (P. cerasifera)	Mariana 2624 (cerasifera × munsoniana)	St. Julien A (insititia type)	Peach	American seedling
European / damson / mirabelle / greengage (6x)	Good	Good	Good	Fair, drained only	Fair
Japanese plum and diploid hybrids (2x)	Good	Good	Fair	Good on warm drained soil	Fair
American, Canada, Chickasaw, hortulan (2x)	Good	Good	Fair	Poor	Good
Beach plum (2x)	Fair	Fair	Fair	Poor	Fair
Cherry plum / myrobalan (2x)	Good (same species)	Good	Fair	Fair	Fair
Sloe (4x)	Fair; suckers badly	Fair	Fair	Poor	Poor

Practical rule. For fruit set, match ploidy and bloom time. For tree survival, put almost any plum scion on Myrobalan 29C or Mariana 2624 and manage suckers. Mariana 2624 is the usual answer on wet feet, *Armillaria*, or high-pH Intermountain ground. Peach under Japanese plum is a California pattern and a chlorosis / wet-soil failure in Utah. St. Julien A is the European-plum specialist (a damson-type stock).

Horticultural notes that apply across taxa.

- **Chill.** European and American types generally need more hours than Japanese and cherry plum. In Utah the Front has enough chill; April frost is the constraint.
- **Iron.** All plums chlorose on calcareous soils. Budget FeEDDHA, not only “chelated iron” of unspecified kind.
- **Pruning calendar.** Japanese: renew one-year wood. European and damson: keep spurs. Native thicket types: harvest the edge or open a vase on a single stem.
- **Shared pests.** Plum curculio (native), brown rot (*Monilinia*), black knot (*Apiosporina*), bacterial spot (worse on Japanese types), peach tree borer at the crown, aphids, gophers.
- **Cyanide reminder.** Pits, seeds, and wilted leaves of every taxon here contain cyanogenic glycosides. Ripe flesh is the edible part.

Appendix A — Wild, naturalized, and feral plums in Utah

Compiled from *A Utah Flora* (Welsh & al.), Flora of North America, USDA PLANTS / BONAP distributions, and Utah State University Extension orchard publications. Status ranks are field guidance, not a substitute for a vouchered county record.

Taxon	Status in Utah	What you actually meet
***P. virginiana* chokecherry**	Native, abundant	Canyons statewide, racemes of many small fruits. **Not a plum.** The usual mis-identification.
***P. emarginata* bitter cherry**	Native	Higher Wasatch and plateaus. Small cherries on umbels, bitter.
***P. americana* American plum**	Rare native and/or long-naturalized	Eastern and northern counties, fencerows, homesteads. Treat western records as introductions unless a pre-1900 collection exists.
***P. cerasifera* cherry plum**	Introduced, locally escaped	Wasatch Front lots, ditches, purple-leaf street trees that seedling themselves.
***P. domestica* European plum**	Introduced, persists	Old orchards and farmsteads. Does not invade wild land.
***P. salicina* and hybrids**	Cultivated only	Lower valleys. Late frost is the crop limit.
P. angustifolia*, *P. maritima*, *P. spinosa	Absent / not established	Wrong biome. Do not expect them in a Utah canyon.
***P. pumila* / *besseyi* sand cherry**	Local native or planted	Low shrubs; small cherries, not the plums of this guide.
***P. persica* peach**	Escaped rarely	Fuzzy fruit. Not a plum.

Planting in Utah. USU Extension treats European plums as the default north of Utah County, hardy American–Japanese hybrids second, and pure Japanese types only on the warmest benches and in Washington County. Budget FeEDDHA. Mariana 2624 or Myrobalan 29C, not peach, on alkaline or winter-wet ground. Chill along the Wasatch Front is adequate; bloom date is the crop.

Appendix B — Colloquial, market, and historical names

Taxon	Names on bags, in old books, and in speech
P. americana	American plum, wild plum, red plum, yellow plum, goose plum (in part), hog plum (in part), “sloe” misapplied
P. nigra	Canada plum, Canadian plum, horse plum, Canada red plum
P. angustifolia	Chickasaw plum, sand plum, Cherokee plum, mountain cherry (locally, wrongly)
P. hortulana	Hortulan plum, Miner plum, wild goose (in part)
P. munsoniana	Wild-goose plum, goose plum, Munson plum
P. maritima	Beach plum, shore plum, seaside plum, prunier des grèves
P. mexicana	Mexican plum, big-tree plum, Texas plum, inch plum
P. alleghaniensis	Allegheny plum, Porter’s plum, sloe (locally, wrongly)
P. subcordata	Pacific plum, Klamath plum, Sierra plum, Oregon plum, western plum
P. cerasifera	Cherry plum, myrobalan, myrobolan, Pissard plum, Thundercloud plum, alycha, tkemali plum, purple-leaf plum
P. salicina	Japanese plum, Chinese plum, li, sumomo, Satsuma group, blood plum
P. domestica	European plum, garden plum, prune plum, Pflaume, Zwetschge, common plum
subsp. *italica*	Greengage, Reine Claude, green gage
***insititia* group**	Damson, damascene, bullace, bullace plum, St. Julien, damson plum
subsp. *syriaca*	Mirabelle, Mirabelle de Nancy, Mirabelle de Metz
P. spinosa	Sloe, blackthorn, slae, Schlehe, prunellier, endrino, prugnolo

“Wild plum,” “goose plum,” and “sloe” each map to more than one taxon. Write the Latin name on the bag.

Plate sources and limits

Plates used here are public-domain taxonomic illustrations: Britton, N.L. & A. Brown, *An Illustrated Flora of the Northern United States, Canada and the British Possessions* (1913), via USDA-NRCS PLANTS; R.B. Hough, *Handbook of the Trees of the Northern States and Canada* (1907); Otto Wilhelm Thomé, *Flora von Deutschland, Österreich und der Schweiz*; J. Sturm, *Deutschlands Flora in Abbildungen*; Curtis's *Botanical Magazine* t. 5934 (*P. cerasifera*, W.H. Fitch, 1871) and t. 8289 (*P. maritima*); Jan Kops, *Flora Batava* vol. 6 (1832); Mentz & Ostenfeld, *Billeder af Nordens Flora* plate 313. Field photograph of *P. salicina* bloom from Wikimedia Commons (CC-licensed). These drawings exist to separate species. Taxonomy follows Flora of North America vol. 9, with Kew noted where it still accepts *P. insititia*. Ploidy and grafting follow UCANR, USDA-ARS GRIN, and published rootstock trials; Utah notes follow Welsh & al. and USU Extension. Confirm a wild tree with several characters; hybrids will not fit every line of a key.