

Plum – *Prunus spp.*

Climate								Soil						
Min Optimal Temp (°F)	Max Optimal Temp (°F)	Min Absolute Temp (°F)	Max Absolute Temp (°F)	Growing Degree Days (°F base)	Chilling Hours (32-45 °F)	Min Rainfall (in/year)	Max Rainfall (in/year)	Min pH	Max pH	Optimal Soil Texture	Absolute Soil Texture	Optimal Soil Drainage	Absolute Soil Drainage	Soil Depth (in)
-31 ^{d,e,j}	93 ^{d,e,i}	-40 ^{d,e,j}	100 ^{d,e,i}	N/A	N/A	24 ^{d,e,j}	88 ^{d,e,j}	5.0 ^{d,e,j}	8.5 ^{d,e,j}	clay loam, silty clay loam, sandy clay loam, loam, silt loam, sandy loam ^{d,e,i}	clay, sandy clay, silty clay, loamy sand, silt, sand ^{d,e,i}	well drained, moderately well drained ^{d,e,i}	somewhat excessively drained, somewhat poorly drained, poorly drained ^{d,e,i}	24 ^{a,j}

	Key Months for Crop Development and Thresholds												
	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
Stage of growth (under current conditions)	Dormant	Dormant	Dormant	Dormant	Budbreak, Leaf Out ^{c,f,h}	Flowering ^{c,f,h}	Fruit Development ^{c,f,h}	Fruit Development, Fruit Ripening, Harvest ^{c,f,h}	Fruit Ripening, Harvest ^{c,f,h}	Vegetative Growth ^{c,f,h}	Leaf Drop ^{c,f,h}	Dormant	

Key Cultivars: ^{b,c,h}

Japanese plum (*Prunus salicina*) varieties are not cold hardy enough for Wisconsin and are not recommended to be grown in the state. Some European plum (*P. domestica*) varieties are hardy enough for parts of Wisconsin. Early cold hardy (tested to zone 4) hybrid varieties (Japanese x American crosses) were developed in South Dakota and more recently at the University of Minnesota. These are the best varieties (below) for fruit production in Wisconsin. Native wild plum (*P. americana*) is also extremely cold hardy, but its fruit is typically too small and sour for the fresh market. Wild plum may be planted for wildlife and/or as a pollinizer.

Early season (mid- to late July)

- 'Blackice' (hybrid, requires cross-pollination, recent University of Wisconsin release, dwarf tree with weeping form, black fruit)
- 'LaCrescent' (hybrid, requires cross-pollination, red fruit)
- 'Underwood' (hybrid, requires cross-pollination, red fruit, University of MN release)
- 'Waneta' (hybrid, requires cross-pollination, red fruit, developed in South Dakota, one of the earliest ripening varieties)

Mid-season (early August to mid-August)

- 'Alderman' (hybrid, requires cross-pollination, University of MN release)
- 'Pipestone' (hybrid, requires cross-pollination, red fruit)

Late season (late August to early September)

- 'Superior' (hybrid, requires cross-pollination, red fruit)
- 'Pembina' (hybrid, developed in South Dakota, extremely cold hardy to zone 2)
- 'Mount Royal' (European, self-compatible, blue fruit)
- 'Stanley' (European, self-compatible, blue fruit, may be winter tender)

Pollinizer varieties

- 'Kaga' (hybrid)
- 'Toka' (hybrid)

Climate Risk Notes: ^{f,g}

While there are some European and hybrid plum varieties that are hardy to zone 4, plum is still susceptible to early spring frost injury. The best way to prevent this is to select late-flowering cultivars and choose your planting site carefully. Avoid planting trees on exposed hilltops and in valleys with frost pockets. The ideal planting spot is on north-facing slopes. Other cultural strategies such as covering trees with tarps and low-volume sprinklers may be used to reduce the risk of frost injury.

Young trees need consistent precipitation or irrigation (i.e., 1 to 2 inches of water per week). Insufficient water may lead to tree loss. Mature trees are more drought resistant, but insufficient water may lead to early fruit abortion.

Overwatering can increase the chance for root rots. Plant trees on well drained soils to reduce this risk.

References

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- ^j U.S. Department of Agriculture Natural Resources Conservation Service (n.d.). *Prunus americana Marshall*. PLANTS Database. <https://plants.sc.egov.usda.gov/plant-profile/PRAM>