

Agroforestry Species Reference

Maryland Forest Service · Maryland Department of Natural Resources

This reference covers fruit, nut, and specialty crop species used in Maryland agroforestry practices. Practice suitability dots indicate species well-suited to each system based on Maryland Forest Service field experience and published university extension research. Harvest windows, yield estimates, and management data are approximate; actual performance varies with site conditions, variety selection, and management. All species are native or commercially available in Maryland.

Trees

Trees are suited for long-term structural roles in agroforestry systems — windbreaks, alley crop borders, riparian buffer overstory, and silvopasture canopy. Plan for 10–20+ years to full production on most species

Common Name	Scientific Name	Riparian Buffer	Wind break	Alley Crop	Silvo-pasture	Forest Farming	Harvest Window	Life-span	Ht.	Spread	First Crop	Max Product.	Pollination	Propagation	Pruning Notes
Black Walnut	<i>Juglans nigra</i>		●	●	●	●	Sept–Oct	75–100+ yrs	50–75'	50–75'	Yr. 4–6	Yr. 20–30+	Monoecious; wind pollinated. Plant multiples.	Seed (stratification required).	Minimal pruning. Remove dead/crossing branches. Note: allelopathic roots inhibit many nearby plants — plan spacing accordingly.
Cherry, Black	<i>Prunus serotina</i>		●	●			July–Aug	60–80 yrs	50–80'	30–60'	Yr. 4–6	Yr. 15–20	Self-fertile; insect pollinated. Higher yields with multiple trees.	Seed (cold stratification required). Transplants reasonably well when young.	Prune for central leader when young. Remove water sprouts and crossing branches. Avoid pruning in fall — increased risk of black knot fungus. Note: wilted leaves toxic to livestock; do not plant in active grazing areas.
Hickory, Shagbark	<i>Carya ovata</i>		●	●	●	●	Sept–Oct	200+ yrs	60–80'	25–35'	Yr. 10–15	Yr. 40–100+	Monoecious; wind pollinated. Plant multiples.	Seed. Difficult to transplant; best direct-seeded.	Minimal pruning. Slow to establish; avoid disturbing tap root.
Maple, Sugar	<i>Acer saccharum</i>			●		●	Feb–Mar (sap); Oct (seed)	200+ yrs	60–70'	40–50'	Yr. 30–40 (syrup)	Yr. 60–80+	Monoecious; wind and insect pollinated. Plant multiples.	Seed (cold stratification required). Does not transplant easily at large size.	Minimal structural pruning. For syrup production, open-grown trees with wide crowns produce more sap. Best suited to western Maryland (Garrett, Allegany, Washington counties).
Mulberry, Red	<i>Morus rubra</i>	●	●	●	●		June–Aug	75 yrs	35–70'	35–70'	Yr. 5–10	Yr. 10–20+	Dioecious; wind and insect pollinated. Plant males and females.	Seed or hardwood cuttings.	Prune for strong scaffold structure. Tolerates hard pruning.
Pawpaw	<i>Asimina triloba</i>	●		●		●	Aug–Sept	25 yrs	20–35'	10–20'	Yr. 3–7	Yr. 8–20+	Monoecious; plant different varieties. Flies pollinate — use carcass or manure to attract.	Seed.	Prune for central leader. Remove narrow-angled branches. Late winter/early spring.
Persimmon	<i>Diospyros virginiana</i>	●		●		●	Sept–Nov	60 yrs	50–75'	35–50'	Yr. 6–8	Yr. 25–50	Dioecious; plant male and female of different varieties.	Seed or grafting.	Train to pyramid with 3–5 scaffolds starting 3' above ground. Thin fruit when mature

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Plum, Wild American	<i>Prunus americana</i>	●	●	●	●		Aug–Sept	20 yrs	15–30'	15–30'	Yr. 3–4	Yr. 10	Need two different trees for cross-pollination.	Seed, root cuttings, dormant or softwood cuttings, suckers. Good rootstock for grafting.	yield drops. Late winter/early spring. Prune for modified central leader or open vase. Prune suckers aggressively or transplant as stock. Spring for young trees; mid-summer for mature.
Serviceberry	<i>Amelanchier spp.</i>	●		●		●	June–July	30–40 yrs	15–25'	15–25'	Yr. 2–4	Yr. 12+	Monoecious; partly self-fertile. Plant at least 2 within 50–75'.	Hardwood cuttings (early spring) or seed.	Light pruning late winter before buds swell. Avoid heavy pruning of young growth; fruits on prior year's wood.
Tulip Poplar	<i>Liriodendron tulipifera</i>			●	●		Apr–June (nectar/honey)	200+ yrs	70–120'	30–50'	Yr. 10–15	Yr. 20–40+	Insect pollinated; important nectar source for honeybees.	Seed or bare-root transplant when young.	Minimal pruning once established. Prune for strong central leader in first 5 years. Fast-growing; space wide in alley systems to allow long-term alley width.

Shrubs

Shrubs establish faster than trees and begin producing within 2–5 years. They are well suited for riparian buffer understory, alley crop alleys, forest farming understory, and windbreak mid-story.

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Blueberry, Highbush	<i>Vaccinium corymbosum</i>	●				●	July–Aug	40–50 yrs	5–8'	5–8'	Yr. 3 (est.)	Yr. 8–10	Self-fertile; cross-pollination increases fruit size. Plant multiple varieties.	Softwood cuttings (late spring) or hardwood cuttings (dormant season).	Remove flowers first two springs. Allow partial crop yr. 3; full crop yr. 4–5. Maintain 6–10 healthy canes per plant. Remove canes older than 6 years.
Chokeberry, Black	<i>Aronia melanocarpa</i>	●	●			●	Aug–Sept	30+ yrs	5–10'	3–8'	Yr. 2–3	Yr. 5	Monoecious; self-fertile but higher yield with multiple varieties. Mason and mining bees.	Seed, softwood cuttings (no rooting hormone), or sucker division when dormant.	After yr. 5: remove canes over 1" diameter annually. Yr. 8: prune to limit height. Late winter/early spring.
Elderberry	<i>Sambucus nigra</i>	●	●	●		●	Aug–Sept	50 yrs	6–12'	6–12'	Yr. 2–3	Yr. 3+	Needs two varieties for harvestable crop (York and Adams recommended). Wind pollinated with some insect assistance.	Suckers, cuttings, or seed.	Option 1: remove canes 3+ years old in winter. Option 2: coppice entirely each winter for larger berries. Remove all flowers in establishment year.
Hazelnut	<i>Corylus americana</i>	●	●	●	●	●	Sept	30–40 yrs	10–16'	8–13'	Yr. 3–4	Yr. 12–40+	Monoecious; wind pollinated. Plant multiples for maximum yield.	Seed or suckers cut from mother plant.	First winter: select 3–5 scaffold limbs. Renewal prune by removing oldest canes to ground annually. Prune suckers spring/summer.

Plum, Beach	Prunus maritima	●	●	Aug–Sept	Variable	3–6'	3–6'	Yr. 3–5	Yr. 6–8	Plant two or more of same variety for best production.	Seed, root cuttings, semi-hardwood stem cuttings.	Train to central leader or open-center form. Prune dormant in late winter/early spring. Remove 25–30% of fruiting wood to manage biennial bearing.
Spicebush	Lindera benzoin	●	●	Sept–Oct (berries)	20–30 yrs	6–12'	6–12'	Yr. 3–4	Yr. 6–10	Dioecious; plant male and female for berry production. Early-season pollinators.	Seed (double dormancy; cold-warm-cold stratification) or softwood cuttings.	Minimal pruning needed. Remove dead wood. Tolerates rejuvenation pruning if overgrown. Shade tolerant — ideal buffer and forest farming understory species.
Viburnum, Blackhaw	Viburnum prunifolium	●	●	Sept–Nov	50+ yrs	12–15'	6–12'	Yr. 3–5	Yr. 6–15	Self-fertile but higher yields with multiple plants. Insect pollinated.	Seed (double dormancy; stratification required) or softwood cuttings in early summer.	Minimal pruning. Remove crossing or dead branches in late winter. Can be trained as single-stem small tree. Tolerates hard pruning if renewal needed.
Witch-hazel	Hamamelis virginiana	●	●	Oct–Nov (flowers); Sept–Oct following yr. (seed)	50–100 yrs	15–20'	15–20'	Yr. 5–7	Yr. 10–20+	Insect pollinated in late fall/winter. Self-sterile; plant multiples for seed set.	Seed (18-month double dormancy) or softwood cuttings. Slow to establish from seed.	Minimal pruning. Remove dead or crossing wood in late winter. Avoid heavy pruning — slow to recover. Commercial extract harvest from stems and bark; manage on rotation coppice cycle for sustained yield.

● Practice suitability applies under typical Maryland conditions Empty = not recommended or insufficient data for that system

Sources: Maryland Forest Service Agroforestry Program; USDA National Agroforestry Center; University of Missouri Center for Agroforestry; Virginia Cooperative Extension; Oregon State University; University of Vermont Extension; University of Minnesota Extension.

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