

# JAPANESE BARBERRY

[*Berberis thunbergii* DC.]

## BETH



UGA0580076

**Habit:** Spiny, deciduous shrub, to 2.5 m (8 ft) tall and wide.<sup>7,2,10</sup>

**Reproduction:** By seed;<sup>7</sup> cut stumps and stems;<sup>2,16</sup> may self or cross.<sup>2</sup>

**Leaves:** Alternate, simple, entire, spatulate, 1.3-2 cm ( $\frac{1}{2}$ - $\frac{3}{4}$  in) long; bright green above, lighter below;<sup>2,7,6</sup> in clusters at each node;<sup>2,10</sup> fall color red to purple depending on the cultivar.<sup>2</sup>

**Stems:** Numerous, reddish-brown, angled or grooved, glabrous, usually with stiff, short, single spines 1.3 cm ( $\frac{1}{2}$  in) long at the nodes;<sup>2,17</sup> older stems gray; inner bark yellow;<sup>17,10</sup> may be replaced every few years.<sup>16,4</sup>

**Flowers:** Small, perfect, 6 yellow petals, stalked; 1-4 in umbel-like clusters at the nodes; April–May;<sup>7,2,10</sup> nectaries located on both sides of the 6 stamens, which have a tripping mechanism; the first visit removes over 50% of the sticky pollen;<sup>11</sup> pollinated by bees.<sup>12</sup>

**Fruits/Seeds:** Early to late summer; bright red, dry, oblong to rounded berry 1-1.3 cm ( $\frac{3}{8}$ - $\frac{1}{2}$  in); 1 seeded;<sup>6,10,7</sup> may remain on the shrubs through winter;<sup>2</sup> production highest in high-intermediate light levels;<sup>16</sup> cold stratification and alternating temperatures improve germination;<sup>1,14,16</sup> over 90% of fruit falls within 1 m (3 ft) of each shrub but has been mapped as far as 80 m (262 ft); dispersed by birds (not a preferred food<sup>16</sup>), deer, turkey, and grouse;<sup>3</sup> fruit removal may be highest in low light.<sup>16</sup>

## JAPANESE BARBERRY



*Berberis thunbergii* DC.

**Habitat:** Introduced into the U.S. between 1864-1879<sup>2,16</sup> from Japan; full sun to full shade; most soil types and habitats; dry ridgetops to wetlands and roadsides to closed canopy forests.<sup>13,4</sup>

**Comments:** Growth minimal in low light; survival of seedlings drops from 90% in intermediate-high light to 40% in low light, but survivors persist; leafs out before canopy and retains leaves after canopy leaf fall;<sup>16</sup> deer herbivory minimal,<sup>3</sup> but severe winter damage from rabbits;<sup>18</sup> mortality of stems or shrubs not related to population density;<sup>4,16</sup> at least 47 cultivars;<sup>2</sup> may alter soil conditions to its benefit by increasing pH, nitrification, and nitrate;<sup>5</sup> association with non-native earthworms possibly due to increased litter decomposition or an agricultural connection.<sup>8,9</sup>

**Similar Native Species:** American barberry (*B. canadensis*); toothed leaves and usually 3-pronged spines.<sup>15</sup>