

# AUTUMN OLIVE

[*Elaeagnus umbellata* Thunb.]

## ELUM



**Habit:** Deciduous, shrub or small tree up to 6 m (20 ft) tall and up to 9 m (30 ft) wide;<sup>8,13,12,4</sup> nitrogen-fixing actinorhizal (by the actinomycete *Frankia*<sup>9</sup>) root nodules present.<sup>15</sup>

**Reproduction:** Primarily by seed;<sup>8</sup> propagation by stump sprouting, by roots, and, for the Ellagood cultivar, by cuttings.<sup>16</sup>

**Leaves:** Alternate, simple, oval, entire and wavy; gray-green, silvery scaly beneath, with a shimmering appearance;<sup>12,8,13</sup> young leaves may be silvery on both sides.<sup>4</sup>

**Stems:** Twigs silvery or golden brown; often thorny<sup>12,8,13</sup> with brownish scales, giving a speckled appearance.<sup>4,12</sup>

**Flowers:** Clusters of 1-8 in leaf axils; fragrant, tubular, cream to light yellow;<sup>12</sup> April-June,<sup>12,8,13</sup> exterior silvery-scaly; 4 petals and stamens.<sup>13,12</sup>

**Fruits/Seeds:** Fruit 6-8 mm (¼ in), fleshy, silvery with brown scales when immature, ripening to a speckled red<sup>12,8,13</sup> or yellow;<sup>6</sup> September-November,<sup>13,12</sup> edible (bitter to semi-sweet);<sup>12</sup> one seeded;<sup>8,12,13</sup> dispersed by birds (not preferentially eaten<sup>14</sup>) and water;<sup>11</sup> fruit high in lycopene;<sup>6</sup> cold stratification improves germination; optimal germination at alternating temperatures of 20-30/10°C (68-86/50° F);<sup>1</sup> persistent seed bank possible (seeds of *E. angustifolia*, a related non-native species, remain viable for 3 years in the lab and have a dormancy period<sup>10</sup>); one study found that despite relative abundance of the species (compared to 31 years ago), *E. umbellata* seeds were not in the seed bank.<sup>3</sup>

## AUTUMN OLIVE



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UGA0016043



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**Habitat:** Native to Asia; open woods, forest edges, roadsides, riparian areas, fence rows, meadows, pastures, sand dunes, mine spoils, other disturbed areas;<sup>12,13,3,14,11</sup> possibly shade tolerant; tolerant of infertile and dry soils;<sup>5</sup> acidic soils may reduce survival of seedlings;<sup>2</sup> USDA hardiness zones 4-8.<sup>4</sup>

**Comments:** At least 5 cultivars;<sup>16</sup> increases soil nitrogen, which may be beneficial to black walnut<sup>7</sup> or have a negative impact by increasing invasion of other exotics or by changing ecosystem properties, neither of which is confirmed for this species yet.

**Similar Native Species:** Silver-berry (*E. commutata*); but thornless with egg-shaped, shorter leaves that are silver-brown and scaly on both sides.<sup>8</sup>