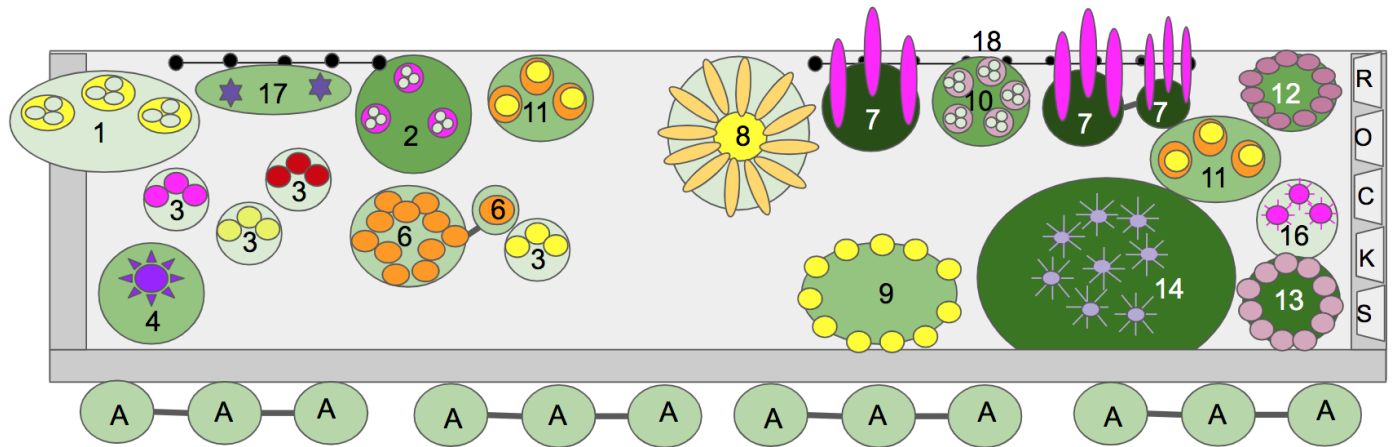


BUTTERFLY GARDEN



- | | |
|--|--|
| 1. Rue, <i>Ruta graveolens</i> | 6. Butterfly Milkweed, <i>Asclepias tuberosa</i> (2x) |
| 2. removed | 7. Blazing Star, <i>Liatris spicata</i> (3x) |
| 3. *Sombrero® Salsa Red Coneflower, <i>Echinacea purpurea</i> 'Sombrero Salsa Red' | 8. Fernleaf Dill, <i>Anethum graveolens</i> |
| *Green Twister Coneflower, <i>Echinacea purpurea</i> 'Green Twister' | 9. Stiff Goldenrod, <i>Solidago rigida</i> |
| *Polly Nation Magenta Coneflower, <i>Echinacea purpurea</i> 'Polly Nation Magenta' | 10. Fennel, <i>Foeniculum vulgare</i> |
| *Sombrero® Lemon Yellow Coneflower, <i>Echinacea</i> 'Balsomemy' Sombrero® Lemon Yellow' (PP24768) | 11. Mexican Sunflower, <i>Tithonia rotundifolia</i> |
| 4. Ironweed, <i>Vernonia fasciculata</i> | 12. Swamp Milkweed, <i>Asclepias incarnata</i> |
| 5. Tall Garden Phlox, <i>Phlox paniculata</i> 'Uptown Girl' | 13. Common Milkweed, <i>Asclepias syriaca</i> |
| | 14. Blue Mistflower, <i>Conoclinium coelestinum</i> |
| | 15. removed |
| | 16. Showy Milkweed, <i>Asclepias speciosa</i> |
| | 17. Purple Passion flower, <i>Passiflora incarnata</i> |
| | 18. Vining milkweed, <i>Cynanchum laeve</i> |

Many flowering plants will attract butterflies to your location, but not all flowers are created equally in the eyes of a butterfly. Selecting plants that will feed butterflies while encouraging them to stick around for a while, laying eggs, and creating a new generation of butterflies, is your goal. To do this, you will need to choose plants that fall into two groups:

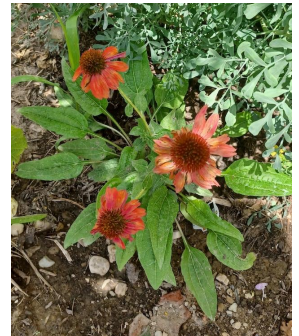
- nectar-rich plants that provide adult butterflies with energy
- caterpillar food plants that will feed growing caterpillars

With a careful selection from these two groups, your garden will provide for the entire life cycle of butterflies. The relationship between butterflies, caterpillars, and the plants they use for food is not a casual one. Caterpillars will use only certain plants for food. Additionally, butterflies are equally picky about what plants they will select to lay their eggs. To encourage caterpillars in the garden, gardeners need only choose the plants that caterpillars prefer that grow in their USDA zone. Nature and chemistry will take care of the rest. Avoid using pesticides and herbicides in the vicinity of your butterfly garden.

1. Rue, *Ruta graveolens*, in *Rutaceae* family, perennial herb, grown for ornamental, and host uses, fragrant, green stems become woody, glabrous blue-green oblong foliage, lobed margin, dotted with glands, dull yellow flowers, entire petals, on flattened corymb/cyme, held above the foliage, in June-July
- 2-3' x 2-3', erect, mounding, sub-shrub, moderate growth, fine texture, medium density
 - Well-drained, clay, loam, sand, shallow rocky soil, moderately fertile, acidic to alkaline pH
 - Full sun, part sun, part shade
 - Low, moderate water, drought tolerant once established
 - USDA 4-8-(10)
 - Attracts: host to several swallowtail butterflies (Black, Anise, Giant), pollinators
 - Resistant to deer, tolerant of drought, dry and rocky soil
 - Short-lived, self-sowing shelter with mulch in winter, prune back to old wood in early spring
 - Breeding ground for tiny parasitic wasps that eat whiteflies, dried plant repels insects
 - High-severity poison characteristics, toxic leaves if ingested by humans, handling can cause dermatitis



3. Sombrero® Salsa Red Coneflower, *Echinacea purpurea* 'Sombrero Salsa Red' ('Balsomseed' PP23105 CPBR4671 US7,982,110), in *Asteraceae* family, herbaceous perennial, grown for floral color, cut flower, 3-6" x 1-3" leaves green above, hairy, ovate to broadly lanceolate, serrated margin, 1-3" stiff, bright orange-red ray/head flowers, 7-25 rays, prickly head, in mass, held above the foliage, in late spring-fall, can rebloom
- 1½-3' x 1-2', erect, rounded, compact, well-branched, moderate growth rate, medium-coarse texture
 - Full sun, part sun, part shade
 - Well-drained, average, poor to rich loam, clay, dry soil, mildly acidic-mildly alkaline pH
 - Low to Moderate, apply once the soil dries out
 - USDA 3-9
 - Deadhead to promote second bloom period, and to reduce self-sowing, divide clumps every 3-4 years
 - Attracts bees, songbirds, hummingbirds, and butterflies, finch eat seeds in winter, deer resistant, tolerant of drought, heat, humidity



3. Green Twister Coneflower, *Echinacea purpurea* 'Green Twister', in *Asteraceae* family, herbaceous perennial, grown for floral color, cut flower, dark green, hairy, ovate to broad lanceolate leaves, serrated margin, stiff, large 4" lime-green, pale lilac-pink and carmine base, in horizontal bands, ray/head flowers, droopy tapering ray flowers, prickly head, in mass, held above the foliage, in mid to late summer, can rebloom until the first frost
- 2-3¼' x 1½-2', erect, rounded, compact, well-branched, moderate growth rate, medium-coarse texture
 - Full sun, part sun, part shade
 - Any well-drained, average, poor to rich loam, clay, dry to medium moist soil, mildly acidic-mildly alkaline pH
 - Low to Moderate, once established, apply once the soil dries out
 - USDA 3-9
 - Deadhead for appearance, to reduce self-sowing and encourage reblooming, divide clumps every 3-4 years
 - Attracts bees, songbirds, hummingbirds, pollinators, and butterflies, finch eat seeds in winter, deer resistant, tolerant of drought, heat, humidity



3. Polly Nation Magenta Coneflower, *Echinacea purpurea* 'Polly Nation Magenta', in Asteraceae family, herbaceous perennial, grown for floral color, cut flower, leaves green above, hairy, ovate to broadly lanceolate, serrated margin, stiff, large 5" magenta ray/head flowers, prickly head, in mass, held above the foliage, in late summer to fall, can rebloom

- 2-2½' x 1-1½', erect, rounded, compact, well-branched, moderate growth rate, medium-coarse texture
- Full sun, part sun
- Any average, poor to rich loam, clay, dry soil, mildly acidic-mildly alkaline pH
- Low to Moderate, apply once the soil dries out
- USDA 4-9
- Deadhead for appearance, to reduce self-sowing, divide clumps every 3-4 years
- Attracts bees, songbirds, hummingbirds, pollinators, and butterflies, finch eat seeds in winter, deer resistant, tolerant of drought, heat, and humidity



3. Sombrero® Lemon Yellow Coneflower, *Echinacea 'Balsomemy'* 'Sombrero® Lemon Yellow' (PP24768), in Asteraceae family, herbaceous perennial, grown for floral color, cut flower, leaves green, hairy, ovate to broadly lanceolate, serrated margin, stiff, large 5" bright yellow ray/head flowers, overlapping dropping rays, prickly copperhead, in mass, held above the foliage, in early to late summer, can sporadically rebloom until frost

- 1¼-2' x 1¾-2', erect, compact, well-branched, fast growth, medium-coarse texture
- Full sun, part sun
- Well-drained, average, dry to medium moist soil, 6.5-7.0 pH
- Low to Moderate, apply once the soil dries out
- USDA 4-9
- Deadhead for appearance, to encourage reblooming, reduce self-sowing, divide clumps every 3-4 years
- Attracts pollinators, songbirds, hummingbirds, and butterflies, finch eat seeds in winter, deer, groundhog, and rabbit resistant, tolerant of drought, heat, humidity, dry, clay, shallow-rocky, and poor soil



4. Common Ironweed, *Vernonia fasciculata*, in Asteraceae family, perennial, grown for ornamental uses, dark green, narrow, linear to lance-shaped leaves, coarse toothed margin, 15-30 rose-purple disk flowers, in dense corymb, flat-topped, appressed bracts like fish scales, in mid-summer-early fall, spreads in small areas without competition.

- 2-4' x 1½-3', upright, stout stem, unbranched,
- Full sun, part sun, part shade, shade
- Well-drained, moist to wet, sandy, loam, clay soil, fertile, 5.8-6.8 pH
- Moderate water
- USDA 3-9
- Attracts bees, butterflies, pollinators, host plants (Vanessa virginienensis American Lady), and Ironweed Borer moth, etc.
- Resistant to deer, tolerant of brief flooding
- Deadhead to promote blooming and reduce self-sowing



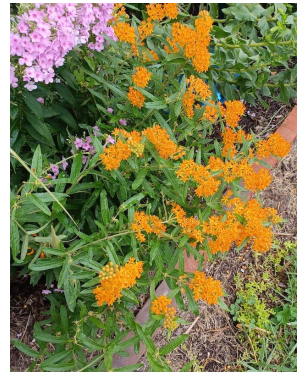
5. Tall Garden Phlox, *Phlox paniculata* 'Uptown Girl' PP32287, in Polemoniaceae family, perennial, grown for ornamental uses, green lanceolate leaves, entire margin, tiny pink, dark pink eye tubular flowers, on dense terminal clusters, in mass, in mid-summer-late summer, reblooms

- 2½-3' x 2-2½', clumping, erect, multi-stemmed, moderate growth
- Full sun, part sun, part shade
- Well-drained, average, sandy, clay soil, fertile, well-fertilized, consistently moist, 5.8-6.5 pH
- Moderate water, no overhead watering
- USDA 3-8
- Attracts bees, butterflies, hummingbirds, and pollinators, resistant to fire and black walnut
- Deadhead to promote reblooming and reduce self-sowing, is not true from seed, cut to ground for winter
- Does not get powdery mildew; allow room around the plant for air circulation, avoid overhead watering



6. Butterfly milkweed, *Asclepias tuberosa*, in *Apocynaceae* family, perennial grown for Monarch butterfly host, and ornamental uses, deciduous, whorled narrow lanceolate 3-6" leaves, entire margin, yellow, orange, and red flowers, with a hood lobes and horn, on axillary flat-topped cymes, held above the foliage, in mid-spring, persists into fall

- 1-3' x 1-2'+, clumping, erect to reclining, slow to medium growth
- Full sun, part sun
- Well-drained, average soil, clay, loam, sand, shallow rocky, dry to moist, occasionally dry, acidic to neutral pH, adaptable to alkaline pH
- Low water, drought tolerant once established
- Resistant to deer, rabbits, drought, erosion, and salt
- USDA 3-9
- Attracts butterflies, hummingbirds, specialized bees, moths, pollinators
- Host for monarch, gray hairstreak, queen, and milkweed tussock moth caterpillars, resistant to deer, and groundhogs
- Once established do not transplant due to tuberous and deep taproot, medium flammability
- Toxic severity is low, for humans, cats, dogs, horses, from all parts



7. Blazing star, *Liatriis spicata*, in *Asteraceae* family, perennial corm, grown for ornamental, vertical accent, Monarch nectar, uses, deciduous, green 6"+ linear foliage, entire margin, some hairs, basal clump, smaller ascending the stem, crowded showy, pink, purple, white disk florets flowers, blooms top-down, on a spike, in mid-summer, for a month

- 3-4' x 1-2', variable height, clump, erect, moderate growth, fine texture
- Full sun, part sun, part shade
- Well-drained, humus-rich, sandy loam soil, moist, tolerant of heavier loam, clay, gravelly, and calcareous soil, occasionally dry or wet, 5.5-7.5 pH
- Moderate to high water, 1"/week during the hottest months
- USDA 3-9
- Attracts butterflies, bees, hummingbirds, songbirds, pollinators, moths
- Tolerant to heat, humidity, drought, salt, may require staking, medium flammability risk, moderately resistant to deer



8. Fernleaf dill, *Anethum graveolens*, in *Apiaceae* family, an annual herb, grown for culinary, medicinal, and ornamental uses, fragrant, edible, 6"+ linear blue-green leaves, entire margin, fragrant edible tiny yellow flowers, held above the foliage, on a 3-6" umbel, in late August-September or earlier

- 2½-5' x 2-3', erect, stiff hollow stems, medium growth rate, fine texture
- Full sun, part sun, part shade
- Well-drained, rich, loam, sand, light soil, consistent moisture, 5.3-7.8 pH
- Moderate water
- USDA 2-11
- Attracts beneficial insects, bees, lacewings, tachinid flies, wasps, hoverflies, lady beetles, butterflies, hummingbirds, pollinators, and host for black swallowtail butterfly larva
- Best in cool summer zones, bolts when dry, difficult to transplant due to a taproot, plant seeds shallowly before the last frost, may need to be supported, shelter from strong winds



9. Stiff goldenrod, *Oligoneuron rigidum* aka *Solidago rigida*, in *Asteraceae* family, perennial, grown for pollinators, adaptability, and medicinal uses, hollow stems, become woody, basal and stem ovate to rhombic leaves, hairy, stiff blade, entire or scalloped margin, stem reduces to none terminally, tiny bright yellow ⅜-½" head flowers, disc/ray florets, in a dense, erect, flat-topped terminal cluster, held above foliage, in late summer-early fall

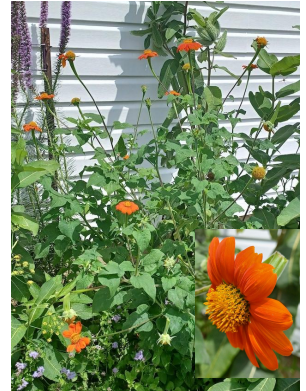
- 3-5' x 1½-2½', erect, clumping, from a rhizome, fast growth, coarse texture
- Full sun, part sun, part shade
- Well-drained, sandy, loam, clay soil, moist, 5.7-6-7 pH
- Moderate water, avoid overwatering
- USDA 3-9
- Attracts butterflies, bees, Monarch butterflies, songbirds, and pollinators
- Deadhead to promote blooming, and reduce self-sowing



10. Bronze Fennel, *Foeniculum vulgare*, in *Apiaceae* family, short-lived perennial herb, grown as an annual, for culinary, and medicinal uses, leaves/flowers have a licorice flavor, yellow-green compound feathery foliage, tiny bright yellow flowers, terminal compound flattened umbels, 20-50 flower, short pedicels, in summer
- 3-6' x 1-3', spreading, erect, multi-stemmed, fine texture, fast growth
 - Full sun
 - Well-drained, rich, loam, sand soi, dry or moist, acidic, neutral, and alkaline pH
 - Low water, tolerant to drought, occasionally dry, clay and sandy soil once established
 - USDA 3-10
 - Attracts bees, beneficial insects, host to swallowtail butterfly caterpillar, resistant to groundhogs
 - Sow seeds in the ground due to the large white taproot
 - sap can cause skin irritation in sensitive individuals, especially when exposed to the sun



11. Mexican Sunflower, *Tithonia rotundifolia*, in *Asteraceae* family, an annual, grown for ornamental and cut flower uses, brittle gangly branching, dark green 3-12" deltoid to ovate leaves, rough, serrate margin, entire or three lobes, downy stems and leaves below, showy 2-3", solitary bright red to orange ray flowers, yellow disc flowers, in mid-summer-early frost
- 3-6' x 2-3', erect, thick central stalk, fast growth, medium texture
 - Full sun
 - Well-drained, average to poor, clay, loam, sand, shallow rocky soil, dry to medium moisture, 6.1-7.8 pH
 - Moderate water, drought tolerant
 - USDA 2-11, shelter from wind
 - Tolerant of heat, drought, and dry soil, resistant to deer
 - Attracts butterflies, bees, hummingbirds, songbirds, and pollinators,
 - Deadhead to prolong blooming, pinch to encourage bushier growth, may need staking



12. Swamp milkweed, *Asclepias incarnata*, in *Apocynaceae* family, perennial, grown for Monarch butterfly host, and ornamental uses, deciduous green lanceolate to oblong 3-6" leaves, entire margin, fragrant, showy ¼" white, pink, rose-purple flowers, on terminal stemmed umbels, in mid-spring to fall,
- 3-5' x 2-3', erect, clumping, erect, medium growth, slow to emerge
 - Full sun, part sun, part shade
 - Well-drained, moist, clay, loam, to drier to occasionally wet, organic, acidic to neutral pH, adapts to alkaline pH and drier sites
 - Moderate, high water, evenly moist
 - USDA 3-9
 - Attracts butterflies, pollinators, host for Monarch caterpillars, resistant to deer
 - Deep taproot, best left undisturbed once established
 - Wound sap has low-severity poison characteristics in humans, cats, dogs, and horses, from all parts (roots, stems, leaves, flowers, fruits, seeds)



13. Common milkweed, *Asclepias syriaca*, in *Apocynaceae* family, perennial, grown for Monarch butterfly use, deciduous, 3-12" oblong, green, thick leaves, downy below, reddish veins, fragrant, pink to reddish-purple ¼" flowers, in 2½-4" clusters of up to 100, 1-3 domed umbels per stem, in upper leaves axils, may droop, in summer
- 3-5', erect, fast growth
 - Full sun, part sun, part shade, conditions
 - Well-drained, moist, clay, sand, loam, shallow rocky soil, occasionally dry, 4.8-7.2 pH,
 - No additional water other than rainwater; apply water in droughts
 - USDA 3-9
 - Attracts butterflies, bees, songbirds, specialized bees, and other pollinators, host to Monarch butterfly eggs and caterpillars
 - Resistant to deer, erosion, drought, dry and poor soil, spreads by underground runners, self-sowing
 - Avoid pesticide use around this plant to encourage butterflies to use it
 - Toxic to humans, cats, dogs, and horses, if consumed in large quantities



14. Blue mistflower, *Conoclinium coelestinum*, in Asteraceae family, perennial, grown for butterflies use, deciduous, ovate to deltoid green foliage, toothed margin, showy, fluffy long staminate tubular, blue-purple ½" flowers of 35-70 florets on discoid heads (no petals), in dense flat-topped corymbs, terminal or axillary, held above the foliage, in mid-summer to fall,
- 1½-3' x 1½-3', clumping, spreading, rounded, erect, fast growth
 - Full sun, part sun in the afternoon, part shade in extremely hot climates
 - Well-drained, loamy, sandy or clay soil, moist to wet, fertile, humus soil, occasional flooding, acidic-7.5 pH, avoid drying out, mulch to retain moisture
 - Moderate water
 - USDA 5-10
 - Attracts butterflies, songbirds, moths, and pollinators, resistant to deer, and fire
 - Spread aggressively by rhizomes, self-sowing, divide clump in early spring, cut back taller plants in summer to prevent flopping, deadhead to reduce self-sowing



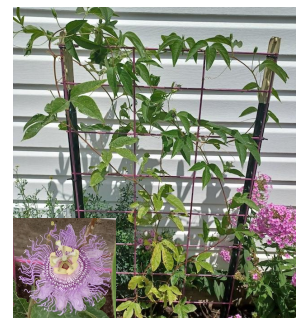
16. Showy milkweed, *Asclepias speciosa*, in Apocynaceae family, herbaceous perennial, rhizomes, fiber products, Monarch host uses, gray-green opposite 4-7" oval, hairy foliage, ½" wide first-year leaves, fragrant loose terminal cluster rose-purple flowers age yellow, crown-shaped flowers, reflexed petals, in late spring to early summer of the second year, known for 2½-4¾" green bumpy seed pod, dries brown, splits, white fluff on wind-dispersed reddish-brown flat seeds



- 1½-5' x 12-18", upright clump
- Full sun, part sun
- Well-drained, any dry to medium moist soil, drought tolerant, 5.0-7.0 pH
- Moderate water
- USDA 3-9
- Transplant during dormancy, deep tap roots, and rhizomes leave undisturbed once established vigorous growth may become weedy, outcompete or displace other plants.
- Attracts hummingbirds, bees butterflies, and insects, host to Monarch butterfly caterpillar, deer resistant
- Toxic milky sap from cuts is harmful to livestock, and they avoid eating them, toxic to dogs, cats, rabbits, chickens, sheep, goats, cows, and horses, self-sowing, North American native in North West Canada and most states West of Mississippi (except AK, LA, MO), along with Wisconsin, Illinois, and Michigan

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17. Purple Passionflower, *Passiflora incarnata*, in Passifloraceae family, woody perennial, grown for vertical interest, culinary, religious, culinary, and ornamental uses, deciduous, dark-green above, whitish below with prominent glands, 3-6" three-lobed foliage, toothed margin, yellow fall color, axillary tendrils, fragrant, edible, showy, 1-3" white and lavender flowers, 7-20 petals, and sepals subtend a fringe of wavy hair-like segments, pistil, and five stamens are showy, three knob-like stigmas, in late spring to early summer, 1-3" orange-yellow berry (maypop), edible pulp, spreads aggressively



*Flower photograph by Candie Stayton

- 10-25' x 12-18"+, climbing, sprawling, fast growth, medium texture
- Full sun, part sun, part shade
- Well-drained, average, medium, rich, sandy, loam, clay soil, dry to moist, and occasional dry
- Low to moderate water, acidic to neutral pH
- USDA 5-10
- Attracts butterflies, hummingbirds, bees, pollinators, and songbirds, host to Gulf Fritillary, Zebra Longwing, Crimson-patched longwing, Red-banded hairstreak, Julia butterfly, Mexican butterfly caterpillars, deer resistant, tolerant of drought, cold and heat
- Pinch back during the first growing season for bushy growth
- Plant away from home due to extreme flammability rating, spreading by root sucker

18. Sand Vine, Vining milkweed, *Cynanchum laeve*, in *Apocynaceae* family, herbaceous perennial, grown for Monarch host, vertical interest uses, twining stems, deciduous blue-green heart-shaped to triangular 3-7" foliage, entire margin, opposite on stem, fragrant tiny vase-shaped white flowers, reflexed petals, in axillary umbellate corymbs, in summer to fall, large 2½-4"(7), tapering smooth pod seed pod, circular in cross-section, splits, white fluff on wind-dispersed in late winter or early spring, clear watery sap



*Photo by Peggy Whetzel

- 10-20'+, climber, groundcover, spreading, vigorous, deeply rooted
- Full sun, part sun
- Any, fertile, dry to moist soil, drought tolerant
- Low to moderate water
- USDA 4-9
- Transplant during dormancy, 6' deep taproot, and rhizomes, leave undisturbed once established
- vigorous growth may become weedy, outcompetes or displace other plants, self-sowing
- Attracts ladybird beetles, predatory insects, wasps, bees, butterflies, and oleander aphids, host to Monarch caterpillar, and Milkweed Tussock Moth, North American native
- Target spray insecticide, herbicide, and fungicide away from this plant and avoid broadcast spraying and drifting
- Milky sap is toxic to livestock, and they avoid eating them, toxic to dogs, cats, and horses, the sap is an eye irritant, and no stem sap