

Eliminate Irrigation, Keep the Flowers

Grow Native Annuals

By Eric Hammond, Horticulturist & ISA Certified Arborist onlygrowinthesun@gmail.com

We will face water restrictions this year despite the wet spring, and not to be an alarmist or cause panic but next year can always be much worse. We've had a serving of weather extremes in Oregon. Climate science indicates we'll have more. The range of actions you can take to prepare your garden for rationed irrigation is broad. A focus on keeping your garden flowering without any irrigation while also boosting biodiversity is easy. Grow native annuals. It's that simple.

Annual flowers native to the Willamette Valley are completely adapted to our summer droughts. They do not need any irrigation to offer weeks of floral bounty. Native pollinators which are under intense pressure from habitat destruction don't care if their food is wild sourced or garden grown. Growing native annuals in our gardens offers insects their preferred pollen and nectar. Natives from California grow well here because their nearby natural habitat is so similar to ours.



Nemophila Penny Black

Climate and plant adaptation models show plants from hotter areas may be better adapted for the climate we will experience in the future. We should start growing plants

adapted to the climate we will have, not the climate we have had. I'm kind of a prepper, this appeals to me. An example from a more southern native range, is bird's eye gilia, *Gilia tricolor*. It has large white and lavender flowers with dark centers and turquoise anthers. They grow well in my garden and the flowers stand out against the dark reddish soil. Meadowfoam, *Limnanthes* species, is another example of drawing from warmer southern habitats. It has at least four subspecies in Oregon, but only one occurs wild as far north as Albany and many more are in California. They are low spreading species and all I've grown perform well in my garden.

While growing native annuals doesn't rebuild the whole ecosystem it helps maintain biodiversity in a small way. And this isn't limited to insect biodiversity. Native annual grow best without any irrigation, saving our common water supply for more critical uses. One of our tallest annuals, showy tarweed, *Madia elegans*, has large yellow daisies that close during the heat of the day in summer. It has very sticky, gland covered stems and foliage, so I'm careful to plant it where I can't brush my arms against it. Its seeds, similar to sunflower seeds, are loved by gold fishes. It grows on dry highway verges as a testament to its drought tolerance.

For quantity of pollinator visits Clarkia is worth growing, but that undersells its showiness. Farewell-to-spring, *Clarkia amoena*, has large flowers in pink shades that bloom into July. It is also one of the plants visited by leafcutter bees. Though finding a leafcutter bee in action is difficult, spotting leaves with circles cut out is a sure sign you are hosting a population of these beneficial native insects. Solitary bees use the leafy discs to build little nests for their larva. Seek out these species of clarkia with the showiest flowers: *Clarkia amoena* var. *lindleyi*, *C. purpurea* ssp. *quadrivulnera*, *C. rhomboidei*, *C. bottae*, *C. concinna*. They grow upright and knit well into the garden. Clarkia are noted among our native annuals for feeding the widest range of insects.

Bluehead gilia, *Gilia capitata*, is visited by our native, yellow-faced bumble bee, and is also hosts the larva of *Adela singulella*, a moth. It's a tiny wispy moth with very long threadlike antae which I'd like a chance to see in my garden. A tall thin stemmed plant, bluehead gilia has round heads of blue flowers with turquoise anthers. In late June and early July, I find them growing in the margins around Silverton. There are never many, so growing it your garden helps add food for the bumble bees and moths. Bluehead gilia are easy to grow.



The top petal of this *Clarkia amoena* var. *lindleyi* has been cut away and used by a native leaf-cutter bee.

There are many commercial flower mixes available that use the term native. But these rely on an overly broad definition, and often contain species from other bioregions. Many of these species aren't helpful to local native pollinators or biodiversity. It is easy to have a successful flower garden that excludes nonnative annuals. Nonnative annuals such as bachelor buttons, red and crimson clovers, rudbeckia, calendula, true poppies, etc. are pretty but don't offer the specific benefits that native annuals do.



Nemophila maculata

A mixture of annuals can be a few species such as snow white meadowfoam (*Limnanthes douglasii* ssp. *nivea*), five spot (*Nemophila maculata*), and baby blue eyes (*Nemophila menziesii*). They start blooming in April and have spreading, low growth with white, white with purple blotches, and blue flowers respectively. Or create a mix of colors, height, and bloom timing with sea blush (*Plectritis congesta*), large flowered blue eyed Mary (*Collinsia grandiflora*), farewell-to-spring (*Clarkia amoena*), California poppy (*Eschscholzia californica*), and tarweed (*Madia elegans*). You can see sea blush and bluehead gilia on the very steep dry grass covered slopes in the canyons of Silverfalls State Park. It's easy to recognize sea blush from its small rosy-pink flowers held in showy round heads. If you can get close enough there, you'll be able to smell their sweet fragrance. When there are lots in the garden the fragrance is more robust. I've never noticed large flowered blue eyed Mary growing wild, but it would be easy to do so because of its showy blue and white flowers on low stems. Both these species finish in June. Clarkia's pink flowers continue for the next month. You'll be challenged trying to figure out what time of day the big yellow flowers of tarweed close. They are open while I drink my first cup of coffee but always closed when I return at morning break. California poppy's electric orange flowers are familiar but never vulgar and make a good addition in an annual seed mix. And other shades are available.



Collomia grandiflora

To resist the drought, most of our native annuals start growing early, with the fall rains and bloom in spring. Most of them finish early in summer. As the plants wither away, their seeds drop to the ground for the next year. Plant some annuals near winter-dormant crocosmia, atop lilies, or among perennials that expand late. This has worked out well with fragrant popcorn flower, *Plagiobothrys figuratus*, in my garden. Though its white flowers are small, the myriad of them are showy and quite fragrant.

The best success you will find is had by planting these annual seeds directly in the garden in autumn. Prepare early by ordering seeds in summer. Using Latin names, you'll be able to find most of the seeds you might want. The species I've mentioned are easy to start with but there are many others worth searching out to include in your garden. You might even want to do a little guerilla gardening and buy a few extra packets to sprinkle in areas that should be hosting native annuals. You could also think of growing native perennials.

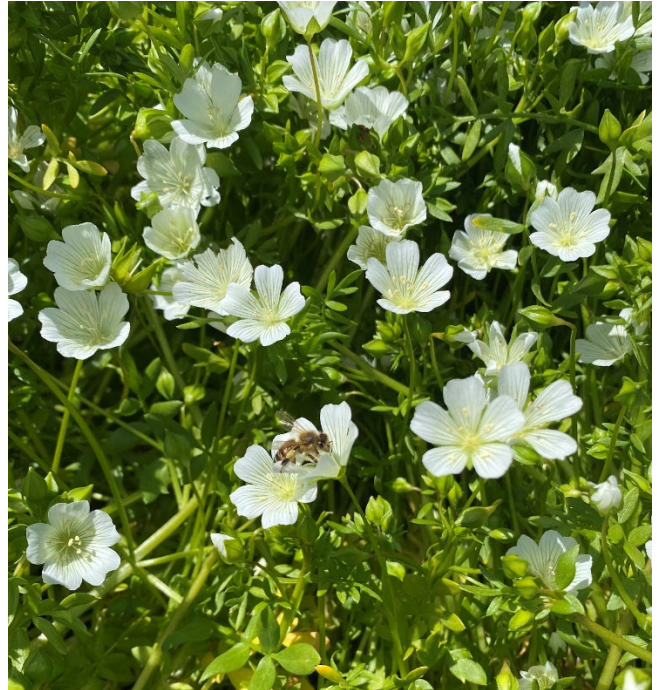


Plagiobothrys figuratus

To succeed with our native annuals, pick a place in your garden that isn't crowded by other plants, or trampled all winter by your dog. Remember they don't need irrigation. The spot that will give you the best success isn't full of other growth over winter. Weeds or grass, even if dormant when you sow the seeds, expand during autumn and winter smothering annual seedlings. In early autumn, bare the soil, killing anything that will grow back over winter. I like to select areas for broadcasted seed. There I don't spread mulch. I scatter the seeds over the perennials and around shrubs. They don't grow as a carpet, but some emerge providing pops of color. The few that grow are pleasant surprises for me and the pollinators. Bark and mulch don't hold moisture well and are low in nutrition; seedlings fail on these soil coverings. The annuals germinate with rain, or in spring after winter stratification.

Scatter the seeds in October, it gives time to kill weeds that germinate in September. Before sowing the seed, first break the crust on the soil surface by scratching it. Do not cover the seed. Let the rain work the seed down into the soil. Don't crowd the seed too much or the seedlings won't have enough space to mature. Shoot for about five plants in a square foot but start with a lot more seed than that assuming a lot of things will go wrong. Thin seedlings if they are too crowded after germination. Transplanting them

isn't likely to succeed. Fertilize the seedlings in January and February to get good growth and boisterous flower displays.



Limnanthes douglasii ssp. *nivea*

A rewarding part of growing native annuals lays in their ability to self-sow and come back the following year. Nonnative annuals don't do that in my garden and if they do, they're weedy. Let the annuals bloom and wither on their own natural schedule. Their seeds drop when mature. Clear away the debris in late summer or when unsightly. Harvest the plants when they are about half withered if you want to move them to new locations or collect seeds. Rubbing the dead plants, after thorough drying, in your hands should free any stuck seeds.

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