Weed of Interest: Common Chickweed (Stellaria media)

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"...this plant is probably the hardiest and most persistent weed on earth" -Ada Georgia 1914

Although common chickweed has never been cultivated, it has found its way into almost every agricultural and horticultural enterprise that humans have devised. It grows in such diverse conditions as the edges of snowbanks in Alaska as well as the coffee plantations of Columbia. The only environment in which it does not thrive is where long periods of drought and heat are common. Although a native of Europe and parts of Asia, common chickweed has been found on all continents including the islands near Antarctica that support plant life. Even though it is not formally cultivated, chickweed has long been a secondary food source for humans as well as a wide variety of wildlife. Chickweed seeds were found in the stomachs of the remains of well

preserved 'bog people' estimated to have lived 1,500 years ago. Unlike dandelion and cocklebur, chickweed seed has no special adaptation for long distance dispersal. Yet the small seed manages to hitch a ride to the most far-flung places on earth that plants are cultivated. The name 'chickweed' derives from the Middle Ages when it was commonly fed to barnyard fowl.



Common chickweed in field nursery. Photo by A. Senesac



Common chickweed L. to R.: seedling, infested field, flower. Photo by A. Senesac

Common chickweed usually has a winter annual habit, but its seed is day-neutral and can germinate over a wide range of temperatures and photoperiods. Chickweed seed can germinate during most months of the Long Island growing season. This plasticity in germination requirements is a common trait of several successful colonizing plants. Several aspects of its life cycle

allow chickweed to be a very successful weed. In addition to a wide range of soil conditions, the seed has very little dormancy when it is freshly shed. Fresh seed is dormant until it undergoes a period of after-ripening. This can last from a few days to weeks, during which the seed, under high air temperatures, physiologically matures and loses its dormancy. This after-ripening period is short enough so that three to four generations can mature in a single growing season on Long Island. The seedlings that establish in the autumn months will overwinter as small, ground-hugging juveniles that will survive the winter in a green but semi-dormant state. As the temperatures rise in late winter and spring, the plant will resume vegetative growth and will soon initiate flowers and seeds. Chickweed flowers self-pollinate and don't rely on external pollination vectors. This allows

March 2021 AGRICULTURAL NEWS

for abundant seed initiation and maturation during the cold months when biotic pollinators are scarce.

Chickweed is a plant of small stature and great elasticity. One plant might spread over an area of more than a square foot if there is no other competition. However, if there are many seedlings growing at once in the same area, the plants can accommodate the competition and still produce some seed. Once mature, the seeds are easily moved around by equipment and plant movement, as well as the many birds that consume them. Chickweed seed can move unharmed through the guts of birds and mammals and be ready to germinate wherever it lands!

Management Considerations: In gardens and fields, early and frequent light cultivation is needed to interrupt the growth of young seedlings. Larger seedlings will usually resist cultivation by regenerating if any roots are left in the soil. In lawns, chickweed will begin to appear as a weed in the spring. However, most of the germination will have occurred the previous fall. Postemergence selective herbicides can be effective in the fall if applied before the end of October. Chickweed is not well controlled by 2,4-D. However, modern turf herbicides are usually comprised of more than one component and any one of these are usually effective. In landscapes and containers, there are several preemergent herbicides that are effective on this weed. (See Cornell Pest Management Guide for Commercial Production of Trees and Shrubs). The key to achieving effective control to ensure that no young seedlings are established when the pre-emergence herbicide is applied. Although they are small and may be hard to see, the seedlings will not be controlled by preemergence herbicides.

Culinary considerations: Common chickweed is generally considered edible as a raw component of a mixed salad. However, most authors agree that it is a better potherb and is improved by a short time in boiling water. A precaution with this plant is that it can accumulate excess nitrates which can be toxic if consumed in large quantity. Interestingly, although most barnyard animals, especially chickens, will readily consume common chickweed, goats are known to leave it entirely alone.