

Weed of the Week: Common Ragweed

Chuck Bornt, Cornell University Cooperative Extension Eastern NY Commercial Horticulture Program

Common ragweed (*Ambrosia artemisiifolia*) can be found in just about every cultivated field, pasture, lawn, ditch bank, roadside and on and on. Common ragweed is a summer annual and germinates from early spring to late summer and can produce anywhere from 3,000 seeds on a small plant to 60,000 on plants that germinate early in the spring and are allowed to reach maturity in the fall. Ragweed seedlings are easily distinguished in the spring with their deeply cut lobes and fern like appearance. Mature leaves to me look like carrot leaves and the plant can grow to be 6 feet tall if left undisturbed. For me, another distinguishing feature its dull green/yellow color and real lack of showy flowers that grow in spikes on the terminal branches. Not only can this weed reduce yield and quality all while making harvesting harder, it can also directly affect humans as a main cause of allergies during the summer while it's shedding pollen! This plant isn't all bad – many Native American healers use Common ragweed for medicinal purposes such as an astringent, antiseptic and fever reducer.



Classic spike-like seed head and “carrot” like leaves of mature Common Ragweed plant.

Common ragweed seed can remain viable in the soil for over 40 years and can germinate as deep as 2 inches. Why am I telling you this? I think this is important because it's one of the ways that ragweed is hard to manage. Most annual weed seeds germinate within the top 1 inch or less. If ragweed can germinate at depths of 2”, that means it has access to more moisture so it can germinate when other seeds cannot and may be less effected by the protective layer of herbicides that we apply. It has been found that 50% of Common ragweed seeds will germinate when 150 Growing Degree Days (GDD) at base 50°F and 80% at 305 GDD. Again, why do I mention this?

Because knowing this information could be a

way to control ragweed with tillage. However, researchers have found that for ragweed to germinate it needs to be exposed to light which is why you need to till far enough in advance to initiate the germination process. If you can till, wait, get a flush of ragweed and then shallow till

again just before planting your crop, you might be able to achieve 50-80% control. If only it was that easy right? Because it needs light to initiate germination, that second tillage you do could start a whole other batch of ragweed seed to germinating unless you want to till at night! That's right, researchers have found that tillage at night can reduce Common ragweed germination by 45%. So, early tillage followed by a shallow tillage just before planting at night could be a key to ragweed management!

Another observation that I've made about Common ragweed over the years (especially as I battled it in my own pumpkin fields), is its what I call “elasticity”. What do I mean by that? I mean that I've tilled and cultivated this weed at just about every stage you can think of and if you wait too long and it gets 4-6” tall, all you seem to do is move it with tillage – not kill it unless you can completely invert it into the soil! The stems just seem to kind of bend right around the cultivator shanks and when you think you've



Common ragweed seedling, with cotyledons and first true leaves. Image by Antonio DiTommaso of Cornell University.

got it, you come back a week later and it's still there, just bent a little where the cultivator hit it, but still growing! Point is, the smaller this weed, the easier it is to kill, especially with shallow tillage. And remember what I said above about how it can germinate at depths of two inches as long as it gets some light exposure!

There are a number of conventional herbicides that are also labeled for controlling Common ragweed and those can be found in the different Cornell University Integrated Pest Management Guidelines like the Field Crop or Vegetable ones. However, because of the tenacity of this weed, it has become resistant to many of the different classes of herbicides that are labeled. For example, Common ragweed has consistently shown resistance to the ALS inhibitors (Group 2) like Classic and Pursuit, Group 9 herbicides that include glyphosate products and Group 5 herbicides like atrazine. Although not all populations of Common ragweed are resistant to all of these classes of herbicides, the weed has the ability to become resistant if proper crop and chemical rotations are not used.

Sources:

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Cornell Weed Science: [Common ragweed | CALS \(cornell.edu\)](#)

Cornell Weed Identification Blog, [Common Ragweed | Cornell Weed Identification](#)