

Important Allergenic Weeds

The following sheets describe nine of the most important allergenic weeds. Although individual species are described on each sheet, in most cases other members of the respective genera are of similar importance (*e.g.*, although short ragweed is a very widespread and important species, other species of ragweed are also of allergenic importance).

The sheets are arranged alphabetically by genus.

Rough/Redroot Pigweed

Genus/species *Amaranthus retroflexus*

Family **Amaranthaceae**

Distribution **Tropical America and introduced throughout the United States**

Comments This weed is an annual species that reproduces by seed and may establish itself aggressively in cultivated fields. It can get to be six feet tall with bristly-looking greenish flowers clustered along the sides and top of the plant during late summer and autumn. This pigweed gets one of its common names from the reddish color at the upper portion of the taproot. However, there are many species of amaranth, and they cross-react allergenically.



Short Ragweed

Genus/species	<i>Ambrosia artemisiifolia</i>
Family	Asteraceae
Distribution	Most of US All states except California, Nevada, Utah, most of Arizona and some adjacent areas of Oregon, Colorado, New Mexico and Wyoming
Comments	This species is the “king” of allergenic plants, being the most important for allergy in America and the most widespread among several species of ragweed. Sometimes called “common” ragweed, it is a native species that aggressively flourishes along roadsides and in disturbed soil. It produces enormous numbers of pollen grains that stay airborne. The leaves are bipinnately lobed, meaning that there are lobes on the lobes. They are opposite on young plants but leaves produced later are alternate. The plant blooms in late summer and early autumn. On each branch of the mature plant, the numerous greenish-yellow male flowers, which open downward to release their pollen, are arranged in clusters along the sides of the spikes above the inconspicuous female flowers. The plant may grow to be four feet tall but is usually smaller. It is an annual, developing each spring from seed that has matured the previous autumn. Giant (<i>A. trifida</i>), Western (<i>A. psilostachya</i>), False (<i>A. acanthicarpa</i>) and Desert (<i>A. dumosa</i>) Ragweeds are other important species.



Common Sagebrush

Genus/species *Artemisia tridentata*

Family **Asteraceae**

Distribution **Western US** North central Washington southward to S California
S California eastward to E New Mexico
E New Mexico northward to SW North Dakota
SW North Dakota westward to north central Washington
Lacking from central and southern Arizona

Comments This widespread shrub, also known as “big sagebrush” or “basin sagebrush”, is perhaps the most characteristic species covering the valleys of the Intermountain West. It typically grows to be three to five feet in height, but occasionally may reach as much as seven or ten feet where there is additional moisture. It is usually found from about 4000 feet up to as high as 10,000 feet. Where the climate is slightly cooler with additional moisture, junipers and pinyon pines may grow among the sagebrushes. Its grayish, strongly-scented leaves are broadest at the tip where two notches are typically found, giving the “three-toothed” margin that accounts for the specific name. The tiny flower heads occur along spikes that develop in the spring, and the seeds ripen in the fall. The woody trunk is gnarled and usually branched near the base. This species is eaten by antelope and sometimes by deer. Several other species, including Coast Sagebrush (*A. californica*) and the herbaceous Common Mugwort (*A. vulgaris*), are important in their respective areas and cross-reactive.



Wingscale

Genus/species *Atriplex canescens*

Family **Chenopodiaceae**

Distribution **Western US** SW California northward to SE Washington
SE Washington eastward to central North Dakota
Central North Dakota southward to S Texas
S Texas northwestward to SW California

Comments This species, also known as Fourwing Saltbush, is a very common grayish-white shrub found throughout most of the Southwest and northward, occurring from 2000' up to 8000' on a variety of sites, often sandy, ranging from hot creosote bush desert up to ponderosa pine forest. It typically grows to be four feet tall, but may reach twice that height. The narrow simple leaves, which may be up to two inches in length, appear smoky because of the dense covering of tiny hairs on both sides. Blooming usually occurs during July and August. The female flowers, pollinated by wind from male flowers on separate plants, give rise to the seeds; the latter are enclosed in a fruit having four papery bracts (giving the species its common names) and about a half inch in size. This and other species of saltbush are useful as food for both wild animals and livestock.



Lamb's Quarter

Genus/species *Chenopodium album*

Family **Chenopodiaceae**

Distribution **Throughout the United States including Alaska and Hawaii**

Comments This annual plant is regarded as an introduction from Europe (where it is called Fat Hen) although there may be native populations. Because it thrives in disturbed rich moist soils, it is often a weed of farms and gardens around temperate areas of the world and may grow to be some 4 feet tall. The alternate rather triangular leaves have a bluish cast to them, especially when immature; these leaves, when cooked, have been used as a vegetable like its relative spinach. Stems often have purplish stripes. The tiny green wind-pollinated flowers, which are found at in clusters at the ends of branches and growing from the bases of leaves, bloom from May to October. Reproduction is by seed. There are other related species that are important such as Mexican Tea (*Chenopodium ambrosioides*).



English Plantain

Genus/species *Plantago lanceolata*

Family **Plantaginaceae**

Distribution **Most of United States** Possibly lacking from some areas of the southcentral US, including S Texas; introduced from Eurasia

Comments This is a common weed of lawns and roadsides. The flowers are borne on heads (well-known to children as natural “bullets”!) whose supporting stalks protrude from the mass of swordlike leaves having distinct longitudinal veins. Blooming takes place throughout the growing season. The rather conspicuous stamens that ring the seed heads produce allergenic pollen that is sometimes collected by bumble bees that bounce from one seed head to another. However, this pollen becomes sufficiently airborne to result in allergy.



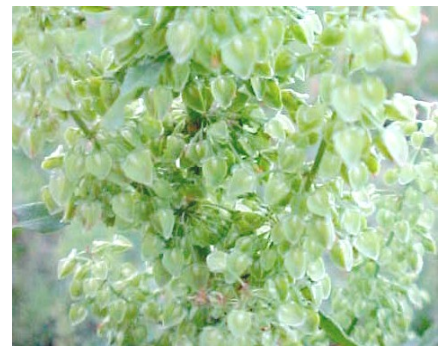
Yellow/Curly Dock

Genus/species *Rumex crispus*

Family Polygonaceae

Distribution Throughout US except S Florida; naturalized from Europe

Comments This common perennial weed makes its appearance in early spring, and its typically-unbranched flowering stem or stalk may grow to be over five feet tall. Its leaves, which may reach a foot in length and three inches wide at the bottom of the plant but usually smaller along the stem, typically have a crinkled or curled edge suggestive of cooking bacon. The leaves at the base of the plant have a petiole but those along the stem lack this. The flowers are in clusters on the stem, and are initially greenish but become reddish; the fruit ripen to a dark brown. The dried stems persist in fields where their dark color contrasts with the lighter color of dried grasses and other plants. Flowering is usually in mid-spring and the pollen is dispersed by the wind. Curly Dock usually grows in moist ditches or along streams. The plant is sometimes used as a folk medicine although it contains considerable quantities of oxalic acid. The much smaller Sheep Sorrel (*Rumex acetosella*) and other species are also important and are cross-reactive.



Russian Thistle

Genus/species *Salsola kali*

Family **Chenopodiaceae**

Distribution **Central and western US, and coastal areas of eastern states**

All areas west of a line from N Minnesota
southward to S Texas

Coastal areas of states east of Texas

Scattered local areas of other eastern states

Comments This annual weed is also known as Tumbleweed because the dried plants, a symbol of the American West, typically break away at the base and get blown about by the wind, spreading their seeds. It was introduced as a contaminant in flax seed to America from its original home on the steppes along the Ural Mountains of Eurasia, and has spread to dry areas throughout most of the world. There may actually be a handful of closely-related species lumped within this name. Originally established in South Dakota, it is now a common weed throughout the western US, and can be found from near sea level to as high as 8500 feet. It is an annual plant reproducing from seeds, has a deep taproot, and grows to become a rounded bush ranging, depending upon growing conditions, from a foot in diameter to some 6 feet. During the early stages of growth, the leaves are about an inch in length, thin and fleshy while those produced on older plants are short, stiff and spine-tipped. The single, tiny flowers are produced at the bases of the leaves. Pollination is achieved by wind. The seeds are unusual in that they contain an embryo without stored food. In addition to inhalant allergy to the pollen, contact allergy to the foliage has been reported.



Cocklebur

Genus/species *Xanthium strumarium*

Family **Asteraceae**

Distribution **Throughout most of US**

Comments This species may grow to be over four feet tall in a variety of waste places and disturbed areas, especially those that are moist. It has large triangular leaves that may be six inches long. The male flowers are found in clusters near the top of the plant while the female flowers are located at the bases of leaves along much of the length of the plant. Pollination (by wind) occurs from July to September. The fruit is in the form of a bur covered with hooked spines, allowing it to be spread about by clinging to fur and other materials much as “Velcro” does.

