Some Common Lawn and Garden

WEEDS

of Los Alamos, New Mexico

Dorothy Hoard & Teralene Foxx
Illustrations by Dorothy Hoard

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WHAT IS A WEED?

Weeds have a bad name. To most people they are any proliferating, ugly plant that is not wanted and has to be gotten rid of.

Actually, what some call weeds you might wish to call *nature's first responders*. Speaking anthropomorphically, these plants are Nature's way of healing disturbed ground. Most ecosystems untouched by humans have undisturbed soil that has developed over tens to hundreds of years and that matches the needs of native plants well. Whenever a flood, landslide, rockfall, etc. disrupts the soil layers, we say it becomes disturbed. Its chemical structure has been destroyed and most native plants won't grow in it. Lack of vegetation leaves the land open to wind and water erosion.

This is when Nature calls in its first responders. These are plants aptly suited to the job. They don't mind growing in nearly any type of soil, and they grow rapidly. What is needed is lots of dead and decaying vegetable debris covering the disturbed soil to prevent erosion and to start the soil healing process. The best plants to do this are annuals that grow large but soon die and cover the land. In order for annuals to continue this work, they must produce prodigious amounts of seeds for next year's crops.

Sounds just like weeds—ugly annuals that produce millions of seeds. In their natural setting these plants are just what is needed, but when humans disturb soil by construction, farming, even flower gardening, the land becomes fair game for these plants. Thereby hangs a cautionary tale. If you don't want to be overrun with weeds, don't disturb any more of the soil than you must. Road construction is the best example for it not only provides habitat for weeds, it collects water on the impermeable road and waters them! Building construction often disturbs far more land than is necessary and the new building becomes surrounded by ugly weeds.

In the dry Southwest, disturbed soil takes far longer to heal than in the wet Northeast. So whatever land is disturbed stays that way for decades. Some of these plants are actually very attractive—purple aster, sunflower, etc.—but in the end they can be a big problem. So enjoy our weeds for their value, but be careful not to attract them unnecessarily. They will come!

—Chick Keller

Each person has a unique idea of which plants to call weeds. This booklet describes some common plants that most people define as *weeds* because they invade lawns, yards, gardens, roadsides, and other disturbed places.

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KEY TO COMMON LAWN AND GARDEN WEEDS OF LOS ALAMOS

1. Flowers with obvious petals
   2. Flower petals white, sometimes with a pinkish or bluish tinge.
      3. Plant a sprawling vine of roadsides and disturbed areas. Petals united like those of a morning glory. Leaves arrowhead shaped.

         BINDWEED

      3. Low plant, common at the edges of lawns or along walkways. Five distinct white petals; the yellow stamens raised on a stalk in the center of the flower. Leaves roundish, palmately veined.

         CHEESEWEED

   2. Flower petals yellow or purple.
      4. Flower petals yellow.
         5. Stems upright from a stout taproot. Flowers large with many petals. Leaves large and toothed. Fruit with appendages like white parachutes that blow in the wind.

            DANDELION

         5. Stems lying on the ground, radiating from a central taproot. Flowers small with five yellow petals.
            6. Leaves opposite with many small leaflets. Fruit covered with sharp spines.

               PUNCTURE VINE, GOATHEAD

            6. Leaves alternate, thick and fleshy. Flowers and fruit small and inconspicuous.

               PURSLANE

      4. Flower petals purple. Low, rather frilly-looking plant, one of our earliest spring bloomers.

         FILAREE, HERONSBILL

1. Flowers lacking obvious petals
   2. Plant a low weedy grass less that 2 ft tall, often forming large swaths. Leaves broad, soft, with delicate hairs. Grass seedhead with long, needle-like awns.

      CHEAT GRASS

2. Plant not a grass
   3. Stems lying on the ground, radiating from a central taproot.
      4. Leaves opposite. Stems becoming reddish, exuding milky juice when broken. Flowers inconspicuous in leaf axils. Common in lawns.

         THYMELEAF SPURGE

      4. Leaves alternate. Stems often red or purple, no milky juice when broken. Flowers in dense, chaffy clusters.

         PROSTRATE PIGWEED

   3. Plant upright, not creeping or prostrate.
      5. Plant with bract-like leaves becoming spiny with age, much-branched, forming dense clumps, becoming a tumbleweed when dry.

         RUSSIAN THISTLE

      5. Plant with definite leaves. May or may not form tumbleweed.
         6. Leaves narrow. Stems much-branched, often red. Mature seeds cottony. Plant to 4 feet tall or taller.

            SUMMER CYPRESS

         6. Leaves not narrow. Flowers tiny, in elongated clusters at the top of the plant
            7. Flowers of two types with male flowers above female flowers. Fruit nut-like with spines. Leaves deeply toothed.

               BURSAGE

            7. Flowers all alike in clusters. Stems smooth and red.
               8. Flower clusters chaffy.

                  PIGWEED

               8. Flower clusters covered with minute, mealy particles.

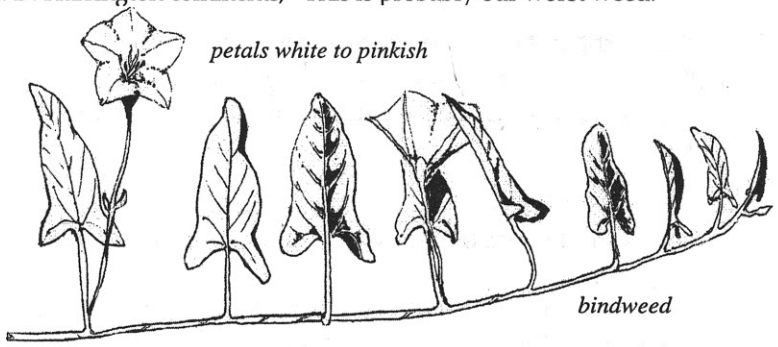
                  GOOSEFOOT

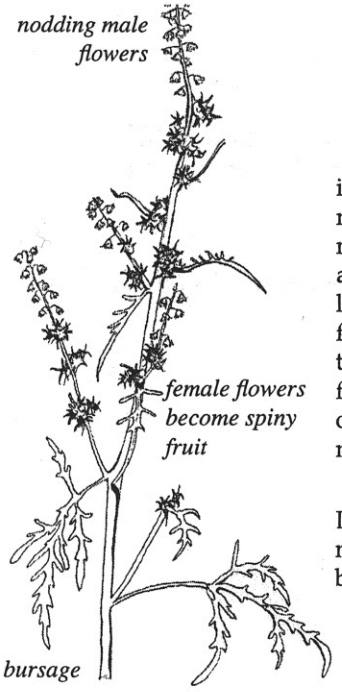
PLANT DESCRIPTIONS

BINDWEED, *Convolvulus arvensis*
Morning-glory Family, *Convolvulaceae*

Tenacious, perennial, prostrate, trailing plant sprouting at each node of underground roots. Leaves alternate on the above-ground stems, arrow-shaped. Flowers twisted in the bud, then open with white or pinkish, 5-lobe, funnel-like petals.

A pretty morning glory, but, alas, a noxious weed of roadsides and gardens. Difficult to eradicate because of the deep, extensive root system that can grow to 30 feet deep. This plant was introduced from Europe and has become widespread in the United States. In his excellent *Manual of the Plants of Colorado* (1964), H. D. Harrington comments, "This is probably our worst weed."





BURSAGE, *Ambrosia acanthicarpa*
Sunflower Family, *Asteraceae*

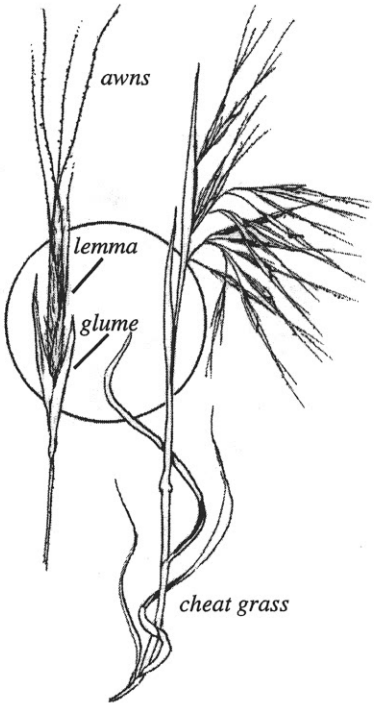
Annual plant to 2 feet tall, often growing in patches. Leaves alternate above, opposite near base. Leaves covered with short hairs; leaf margins coarsely toothed. The leaf underside appearing lighter than the upper. Flowers in long clusters at the tops of the stems. Male and female flowers different. Male flowers on top of the stem, nodding, appearing somewhat yellow from the pollen. Female flowers below the male ones, a ball-like structure with a long beak. Petals none. Fruit nut-like, spiny.

This is a native plant that became invasive in Los Alamos when the county bought contaminated bark for landscaping. Common in planting beds along Central Avenue.

CHEAT GRASS, DOWNY CHESS
Bromus tectorum
Grass Family, *Poaceae*

Annual grass to 1.5 feet tall. Stems soft, with spreading white hairs, somewhat nodding, often becoming purple in age. Leaves flat and soft with spreading hairs. Flower head open with spreading slender branches on long side stems, 3 to 4 branches at a node, somewhat nodding or spreading. Flowers long and narrow. Glumes unequal, awnless, hairy on margins and nerves, margins membranous. Lemmas sparsely hairy, rounded on back, with a long straight awn from between two membranous teeth at tip; awn becoming purplish.

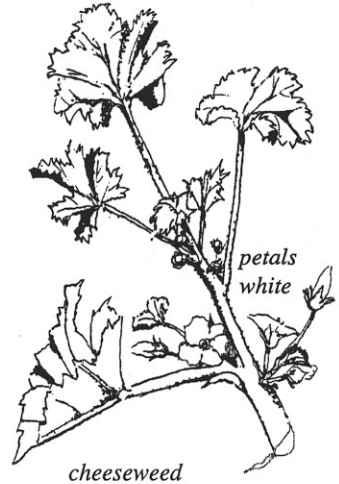
This is one of several plants called *cheat grasses*. In spring it seems like a good forage grass that grows abundantly, but it soon develops sharp stiff awns that puncture livestock's soft tissues. Also called a *six-weeks grass* because it grows early in the season, then quickly dies. It has a second growth in autumn as the weather turns cool. Cheat grass forms large swathes in disturbed areas.

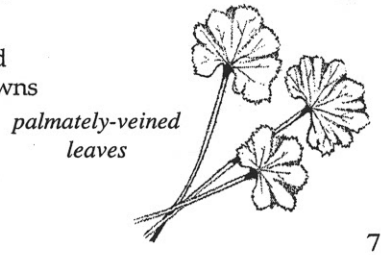


CHEESEWEED, *Malva neglecta*
Mallow Family, *Malvaceae*

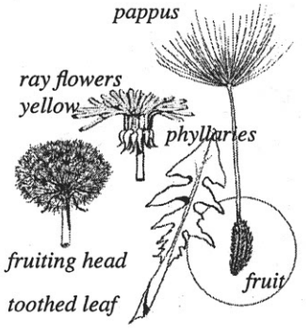
Low, bushy annuals growing to 1 foot across, rarely to 1 foot tall. Stems hairy, spreading on the ground. Leaves to 3 inches long, almost circular, with 5 to 7 shallow lobes, palmately veined, the veins prominent. Both leaf surfaces with fine hairs. Flowers on short stems, in few-flowered clusters at the base of the leafstalk. Sepals united, with 5 sharp pointed lobes, several linear bracts at the base. Petals 5, to 15 mm long, united only at the very base, white or bluish to pinkish, with fine pink veins. Stamens many, filaments united into a tube. Fruit resembling a round of cheese, falling apart in age.

This common weed of gardens, naturalized from Europe, is often found at the edges of lawns or other fertile areas and along sidewalks.



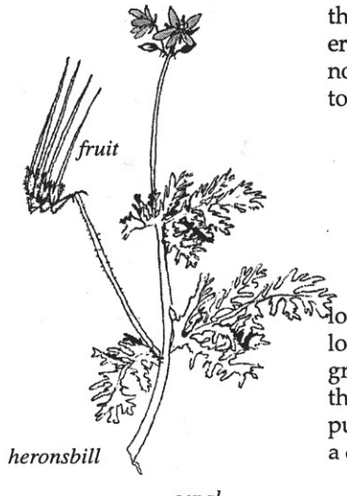


DANDELION
Taraxicum officinale
Sunflower Family, *Asteraceae*

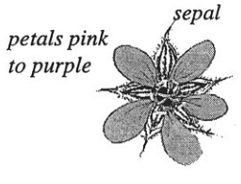


Perennial with stout taproot. Leaves and flowering stem in a rosette at the base of the plant. Stems hollow, with milky juice. Leaves lance-shaped, deeply incised into toothed lobes, hairless to sparsely hairy, principally on the nerves. Flowers on leafless, hairless or sparsely hairy stems. Phyllaries in 2 series, outer shorter and directed downward, inner upright and columnar to 2 cm tall. Ray flowers yellow, flattened and toothed at the tip, mostly female with 2 styles curling at the tip. The outer set of ray flowers longer with broad gray lengthwise stripes. Disk flowers none. Fruit to 2 mm long, brown, hairless but with hooked tubercles at the top. Pappus with parachute-like white filaments at the end of the long neck.

Dandelions are notorious survivors. They grow in lawns and other areas amidst other plants, not even needing bare ground. In addition to normal fertilization, they can produce seeds asexually from female flowers only (parthenogenesis). Probably introduced to the Western Hemisphere from Eurasia, dandelions are now found throughout the world from sea level to over 12,000 feet in elevation.



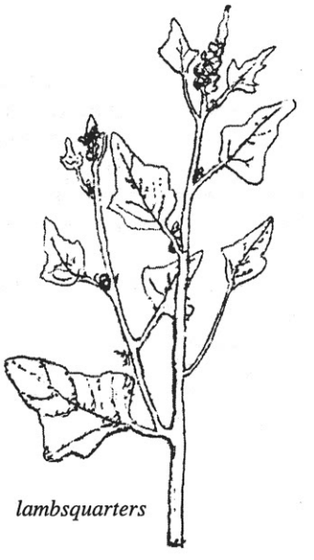
FILAREE, HERONSBILL
Erodium cicutarium
Geranium Family, *Geraniaceae*



Stems trailing or lying on the ground, to 1 foot long. Leaves extensively divided, giving a frilly look. Flowers in umbrella-like clusters. Sepals greenish, hairy, pointed, with bristle-like hairs at the tip. Petals 5, pink with dark veins of rose to purple. The elongated fruit has the appearance of a crane's or heron's bill. Fruit coils when mature.

This plant appears to have been introduced from Europe with the Conquistadors. Also called *alfileria*, from the Spanish word meaning "a pin." Teas were made from the root and used to treat bleeding and inflammation. One of our earliest and latest blooming plants. Found in disturbed soils, lawns, and along sidewalks.

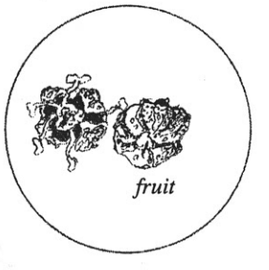
GOOSEFOOT, LAMBSQUARTERS
Chenopodium spp.
Goosefoot family, *Chenopodiaceae*



Weedy, annual plants. Stems sometimes becoming red. Leaves alternate on the stem. Plants more or less covered with whitish, mealy particles. Flowers greenish, densely mealy, arranged in crowded clusters in dense heavy spikes at the tops of branches and in leaf axils, Petals none. Fruit a tiny brown, hollow body, rather turban shaped. Seeds shiny black.

Indigenous people ground the tiny seeds into meal. Often called wild lettuce or wild spinach. When young, the leaves make excellent salad greens and taste much like spinach when cooked, but they become bitter in age. The plant is often for sale at farmer's markets. It grows in disturbed areas and cultivated gardens. Of many species in the area, the following two frequently invade gardens

LAMBSQUARTERS, *C. album.*



Leaves rather diamond-shaped, pointed at the tip, margins shallowly toothed, upper surface hairless, lower surface sparingly mealy, rather bright green. Introduced from Europe.

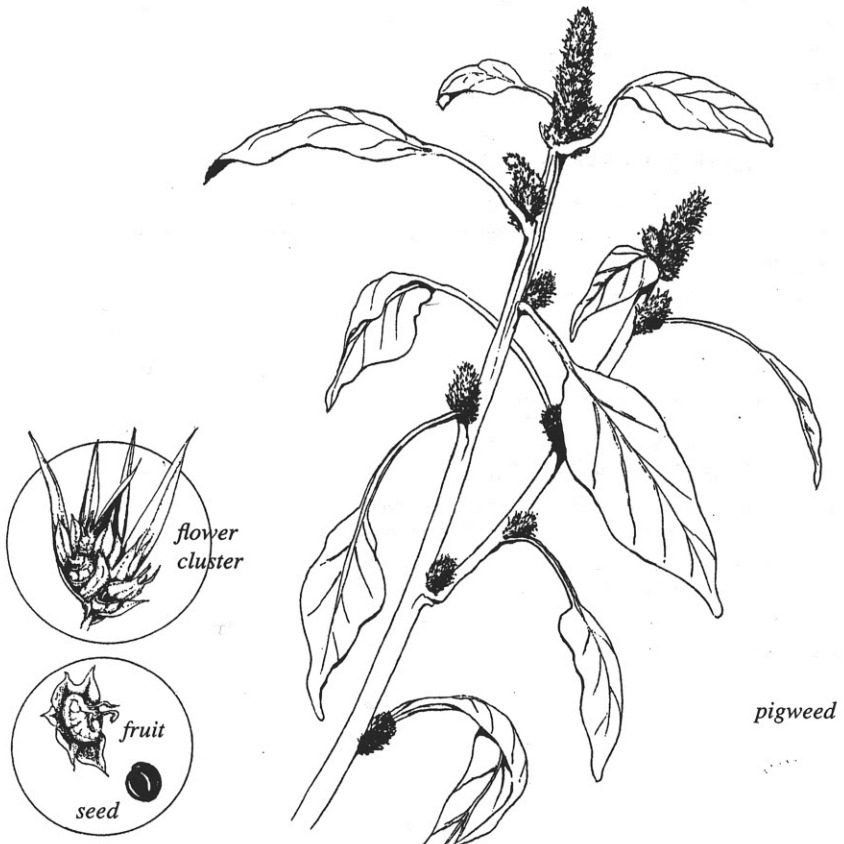
FREMONT'S GOOSEFOOT, *C. fremontii.*

Leaves almost as wide as long, thin, often with a small tooth on each side at the widest part of the leaf, almost as large at the top of the plant as at the bottom, with tiny white mealy particles on both sides, but more on the underside, giving it a whitish cast. Difficult to easily distinguish from lambsquarters; generally more mealy. This plant is native.

PIGWEED, *Amaranthus retroflexus*
Amaranth Family, *Amaranthaceae*

Erect, weedy annual to 3 feet tall. Stems smooth with red stripes, becoming completely red, especially at base. Leaves mostly alternate, hairless, egg-shape to somewhat diamond-shaped, margins entire to wavy; leafstalk long. Male and female flowers on the same plant, intermixed in chaffy clusters, on densely crowded spikes; spine-tipped bracts beneath each flower becoming bristly, longer than the sepals. Sepals 3, hairless, membranous, pointed. Petals none. Fruit shiny black.

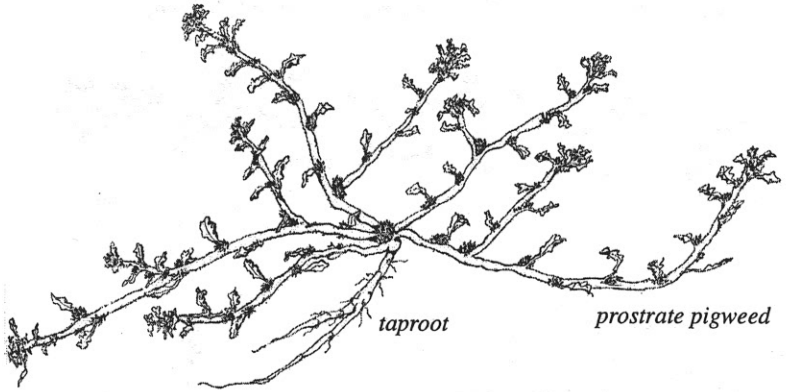
Amaranths have been cultivated for millenia for their nutritious seeds, preceding corn as a staple in aboriginal North American diets. One plant may produce as many as 100,000 seeds, making it a pest of gardens and other soils rich in nitrogen. Amaranths are extremely variable and interbreed freely; *A. retroflexus*, a native of tropical America, is a common upright type. Often called redroot pigweed.



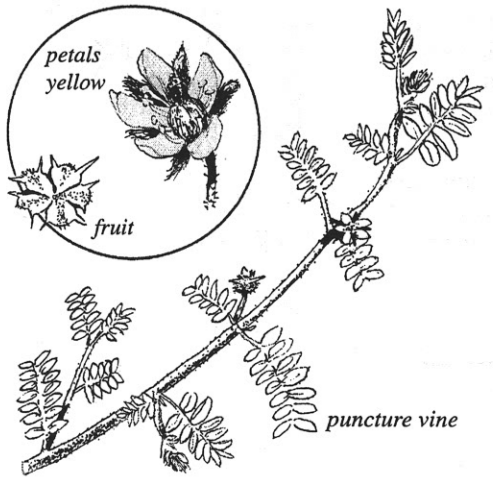
PROSTRATE PIGWEED
Amaranthus blitoides (A. graecizans)
Amaranth family: *Amaranthaceae*

Prostrate annual from a central taproot,. Stems much-branched, hairless or slightly hairy, often red to purple, to 18 inches long but rarely more than 6 inches tall. Leaves alternate, hairless, on short leafstalks, oval with crinkled edge, wider near tip. Male and female flowers on same plant, in dense, chaffy clusters in leaf axils. Sepals 4-5, membranous or paper-like. Petals none. Bracts beneath the flowers narrow, spine-tipped. Seeds black, shiny, lens-shaped.

Found in disturbed areas, gardens, and along roadsides. Amaranths are notoriously variable and interbreed freely; *A. blitoides*, a native of the U.S. West, is a common prostrate type.



PUNCTURE VINE, GOATHEAD
Tribulus terrestris
Caltrop Family, *Zygophyllaceae*



Stems to 1 foot long, trailing from a single taproot. Plant rarely more than 1 foot tall. Leaves, pinnately compound with oblong to elliptical leaflets. Flowers to 1/2 cm wide. Petals yellow, not united. Fruit with tough, sharp spines.

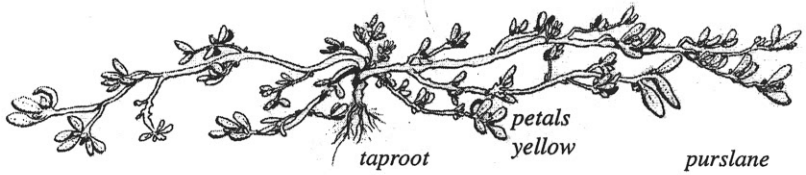
A noxious weed whose spiny fruit is a menace to bicycle tires.

Naturalized from Europe. Generally found in disturbed soil, particularly sandy areas.

PURSLANE, VERDOLAGAS
Portulaca oleracea
Purslane Family, *Portulacaceae*

Plant creeping or lying on the ground, often forming a large ground-cover. Stems diverging from a taproot, fleshy, sprawling, to 1 foot long, hairless, often reddish. Leaves thick and fleshy, spoon-shaped. Flowers single or in clusters. Sepals rounded and somewhat keeled. Petals yellow, to 1/2 cm long. Fruit a capsule breaking in a circle about the middle. The upper half fleshy, pointed, tan, somewhat wrinkled; lower half solid, stiff, hairless, whitish inside, with up to 5 seeds. Seeds to 1 mm in diameter, black, curled.

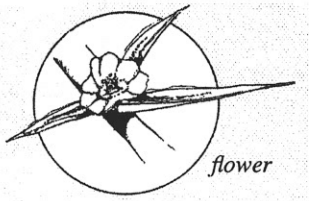
In New Mexico, verdolagas (green lakes) is considered a vegetable, often sold at farmer's markets, delicious when sauted with bacon. A serious invader elsewhere. A native of western Asia, it grows from sea level to 8,500 feet in elevation.



RUSSIAN THISTLE, *Salsola tragus (S. kali)*
Goosefoot Family: *Chenopodaceae*

Annual to 6 feet tall, much-branched, forming dense clumps. Stems with 8-10 lengthwise reddish ridges, spiny at the tip. Leaves alternate, linear, stemless, spine-tipped, covered with short stiff hairs, soft when young, becoming bract-like and spiny with age. Margins entire. Leaves on side stems bract-like, 2-3 lobed, each lobe spine-tipped. Flowers tiny, clustered at the base of the leaves, with bracts beneath the flowers. Sepals green or yellowish to red, to 6 mm broad, 5-pointed, with wings. Petals none. Plant becoming a tumbleweed when dry.

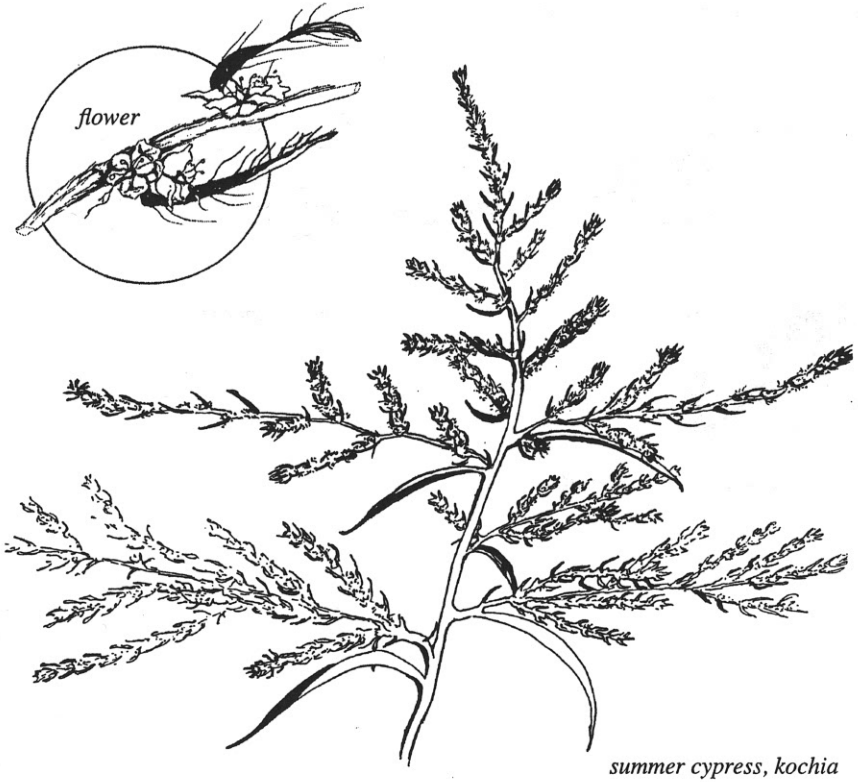
This weed is one of the most prolific invaders of disturbed ground. It is a native of Eurasia and was brought into the United States in flax seed over 100 years ago.



SUMMER CYPRESS, *Kochia scoparia*
Goosefoot family: *Chenopodiaceae*

Annual plant to 4 feet tall. Stems much-branched, somewhat angled, with horizontal reddish veins, short fine hairs, often turning red in age. Leaves alternate, to 2 inches long, lance-shaped, soft, often with white hairs on the margins, hairless above, short silky below, with a short leafstalk. Flowers in dense heads with many side branches, in axils of leaf-like bracts; Sepals mealy, 5-lobed with papery margins, sparingly glandular. Petals none. Mature seeds cottony.

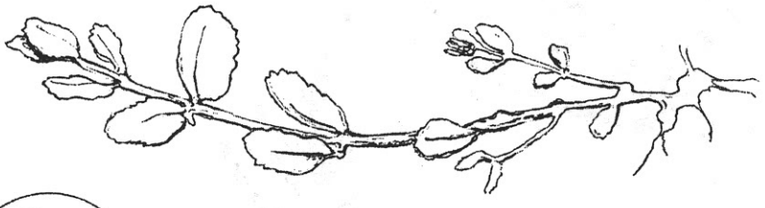
Introduced into the United States as an ornamental plant because of its bright red color in autumn. It has escaped cultivation and now grows as an aggressive weed in gardens, disturbed areas, and along roadsides. Also called *burning bush* or *kochia*.



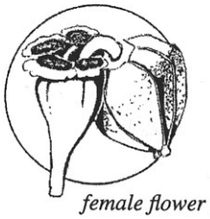
THYMELEAF SPURGE
Chamaesyce serpyllifolia (*Euphorbia. serpyllifolia*)
Spurge Family, *Euphorbiaceae*

Annual, mat-forming plant. Stems to 12 inches long, becoming red in age, hairless, exuding milky juice when broken. Leaves opposite, to 10 mm long, hairless, on very short bent stalks, oblong to oval, toothed above the middle, the bases usually unequal. Flowers tiny, borne in the axils of leaves in a small floral cup. Male and female flowers different in appearance, but on same plant. Sepals and petals none. Fruit a triangular capsule of 3 lobes, on a short stem from the floral cup, hairless, usually nodding.

This plant is often found growing in lawns. It grows about the same height as mowed grass, so is not deterred by repeated mowing that can control other weeds. Often it is not noticeable until it turns red in autumn. It produces many seeds so is difficult to eradicate.



thymeleaf spurge



female flower with fruit

NOTES