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# Winter Annual Weeds of Kentucky

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Many home owners, naturalists and farmers are interested in learning the names of the plants growing about them. Late winter or early spring is a good time of year to start looking at the weeds growing in cultivated beds, vegetable gardens and fallow fields not yet tilled and planted for the coming year. Many of the plants that flower at this time are winter annuals. Identification may be difficult since many winter annuals are small and have inconspicuous flowers. However, if one is willing to take the time to look closely at each species, then identification can be learned. A hand lens will be helpful.

A winter annual starts from seed in autumn, develops a rosette of basal leaves before winter,

then flowers and sets seed the following spring or summer. The mature seeds lie on the soil surface and become non-dormant during the summer months. In autumn, germination is triggered by lower temperatures and moist soil. These low winter temperatures, not the amount of daylight, delay flowering. Thus, as soon as warm days of spring arrive, the plants will bloom.

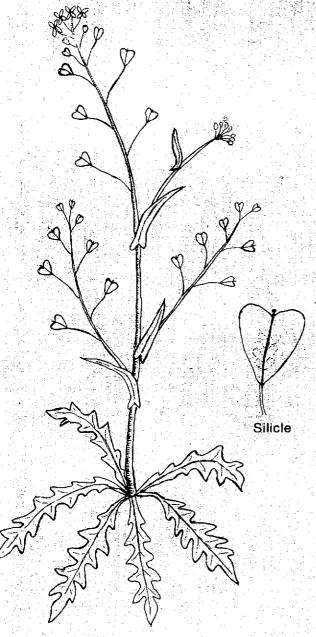
The following 11 species are common and only a small sampling of the many winter annual weeds found throughout Kentucky. They are separated into 5 family groups and characteristics of the family are listed in the table below.

# **Plant Family Characteristics**

FAMILY	LEAVES	STEM	FLOWERS	FRUIT
Mustard (Cruciferae)	alternate and simple	round	sepals 4, petals 4, both arranged to form a cross	silique (an elongated fruit) silicle (a short fruit)
Mint (Lablatae)	opposite or whorled	square	sepals 5, petals 5, tubular in shape	group of 4 nutlets each with 1 seed
<b>Geranium</b> (Geraniaceae)	alternate, lobed or divided	round	sepals 5, petals 5	schizocarp (beaked or lobed often with elastic dehiscence [opening])
<b>Pink</b> (Caryo- phyllaceae)	opposite and simple	round	sepals 5, petals 5, notched at the tip	capsule (a dry fruit that opens and is made up of more than 1 carpel)
<b>Mallow</b> (Malvaceae)	alternate and simple	round	sepals 5, petals 5, stamens numer- ous, united to form a column	a flat disk made up of 10-17 carpels that open when mature

## **Mustard Family**

(Cructferae)

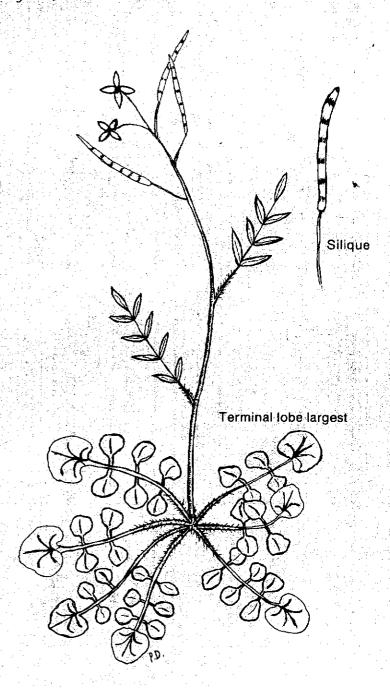


### Shepherdspurse

Scientifice name: Capsella bursa-pastoris Medic Leaves: basal rosette variously toothed or lobed; stem leaves clasping with pointed lobes, 2-4 inches long.

Flowers: at the ends of the branches, small, with 4 sepals and 4 white petals.

\*Fruit: a silicle that is flat, heart-shaped or triangular, 2-parted, and about ¼ inch long. Location: gardens, lawns, roadsides, waste areas, and cultivated fields.



### **Hairy Bittercress**

Scientific name: Cardamine hirsuta L.

Leaves: mostly basal, forming a rosette of deeply divided lobes with the terminal lobe the largest; blades hairy on the upper surface and stalk.

Flowers: small with 4 sepals and 4 white petals.

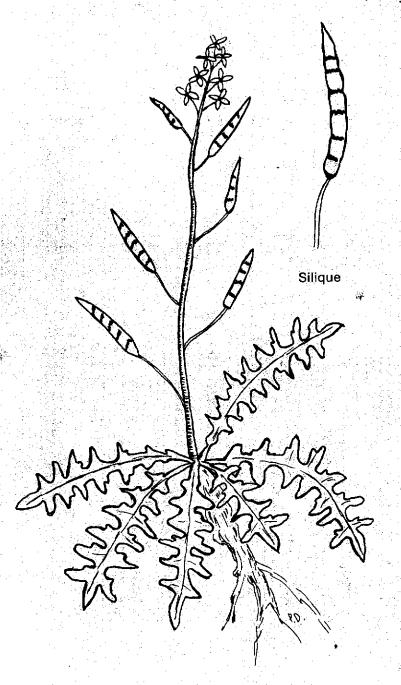
\*Fruit: a silique that is very thin, more than 10 times as long as wide, stiffly ascending.

Location: lawns, gardens, waste areas, old fields, and cultivated fields.

<sup>\*</sup>The most distinguishing feature of each weed

# **Mustard Family**

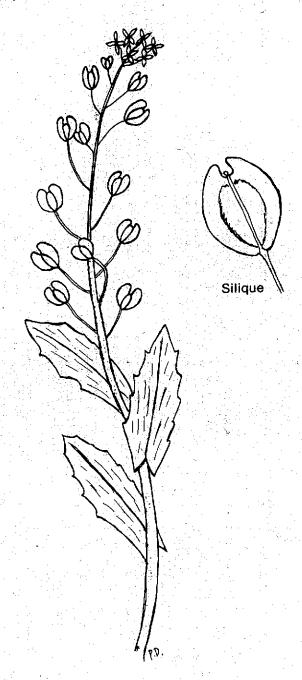
(Cruciferae)





Scientific name: Sibara virginica (L.) Rollins
Leaves: deeply divided into narrow segments with
a small protrusion near the base of the leaflet.
Flowers: small with 4 sepals and 4 whitish-pink
petals.

\*Fruit: a silique that is about 1 inch long, stiff, broad, flattened, and on stout ascending stalks. Location: lawns, gardens, waste areas, old fields, and cultivated fields.



#### **Field Pennycress**

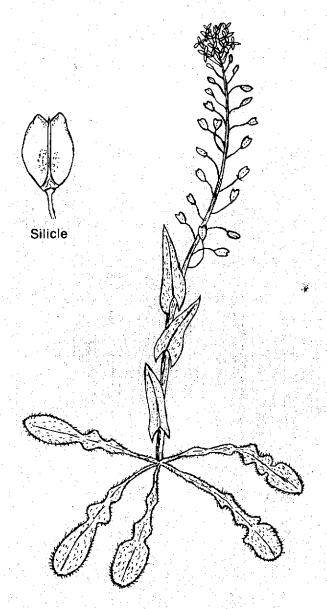
Scientific name: Thlaspi arvense L. Leaves: alternate, simple, toothed, ½ to 2 inches long with the upper leaves clasping the stem. Flowers: numerous, small with 4 sepals and 4 white petals.

\*Fruit: a silique that is circular, flattened, winged, and notched at the top, about ½ inch wide.

Location: lawns, gardens, waste areas, roadsides, grainlands, pastures, and cultivated fields.

### **Mustard Family**

(Cruciferae)



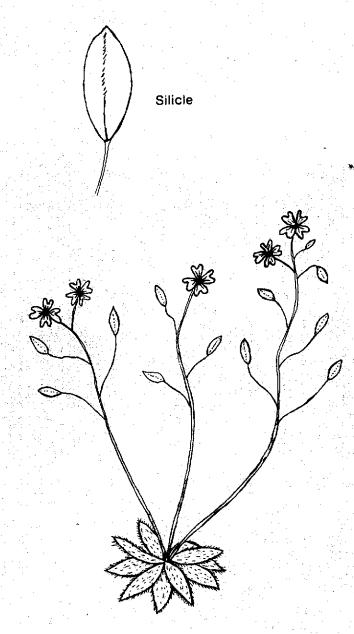


Scientific name: Lepidium campestre (L.) R.Br. Leaves: basal leaves arrow-shaped to spathulate, often pinnately lobed or toothed; stem leaves arrow-shaped, with bases clasping the stem, hairy.

**Flowers:** inconspicuous with 4 sepals and 4 whitish-green petals, in dense clusters at the top of the stem.

\*Fruit: a silicle that is slightly longer than wide, somewhat pointed at the top, 2 valved with 1 seed in each partition.

Location: gardens, pastures, waste areas, roadsides, small grains, and cultivated fields.



### Vernal Whitlow-grass

Scientific name: Draba verna L.

Leaves: basal in a rosette, narrow, covered with

hairs and sometimes purple-tinged.

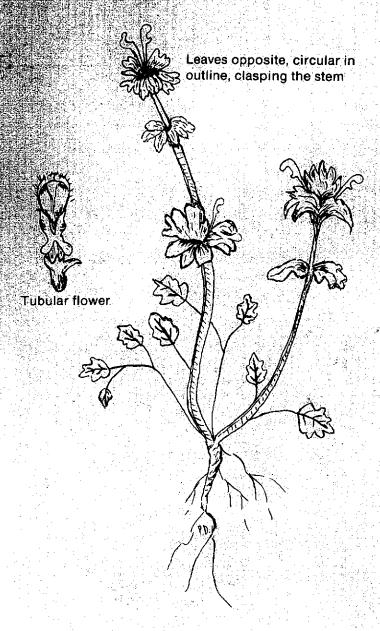
Flowers: at the top of the stems, small with 4 sepals and 4 white deeply-clefted petals.

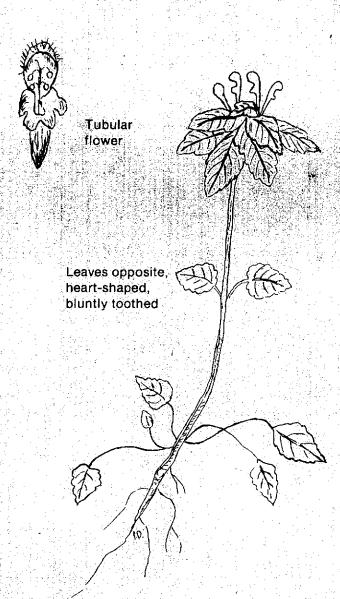
\*Fruit: a silicle that is narrowly elliptic, and rounded out equally to both ends, about ½ inch

**Location:** lawns, gardens, roadsides, waste areas, small grain, and cultivated fields.

### **Mint Family**

(Labiatae)





#### Henbit

Scientific name: Lamium amplexicaule L.

\*Leaves: opposite, rounded with bluntly toothed margins, scalloped, upper leaves stalkless, appearing circular around the stem; lower leaves long-stalked.

Stem: square

Flowers: in whorls in the upper leaf axils, petals purplish-pink, tubular, and 2-lipped.

Fruit: a nut, small, sharply angled, mottled light or dark brown.

Location: lawns, gardens, waste areas, pastures, and cultivated fields.

### Purple Deadnettle

Scientific name: Lamium purpureum L.

\*Leaves: opposite, palmately veined, spoonshaped to heart-shaped with bluntly toothed margins, stalkless; lower leaves similar but on long stalks.

Stem: square.

Flowers: in whorls in the upper leaf axils, petals purplish-white, tubular and 2-lipped.

Fruit: a nut, small, brownish and sharply 3-angled.

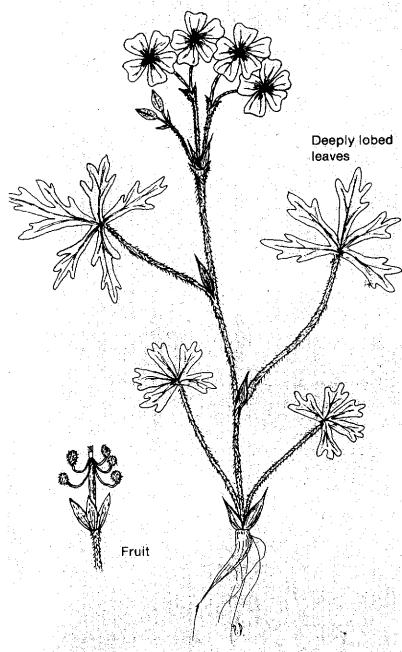
Location: lawns, gardens, waste areas, pastures, and cultivated fields.

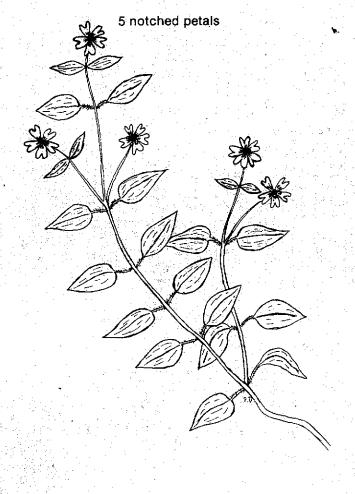
### **Geranium Family**

(Geraniaceae)

# **Pink Family**

(Caryophyllaceae)





#### Carolina Geranium

Scientific name: Gerantum carolintanum L. Leaves: basal, 1 to 3 inches broad, with 5 to 8 deeply lobed segments, hairy and pinkish beneath; stem leaves similar.

**Flowers:** small, 5-petaled, pink to lavender in color.

\*Fruit: a long pointed seed pod splitting into 5 curled parts when mature.

Location: lawns, gardens, waste areas, roadsides, barnyards, pastures, and cultivated fields.

#### Common Chickweed

Scientific name: Stellarta media (L.) Vill. Leaves: small, opposite, simple, spoon-shaped with pointed tips.

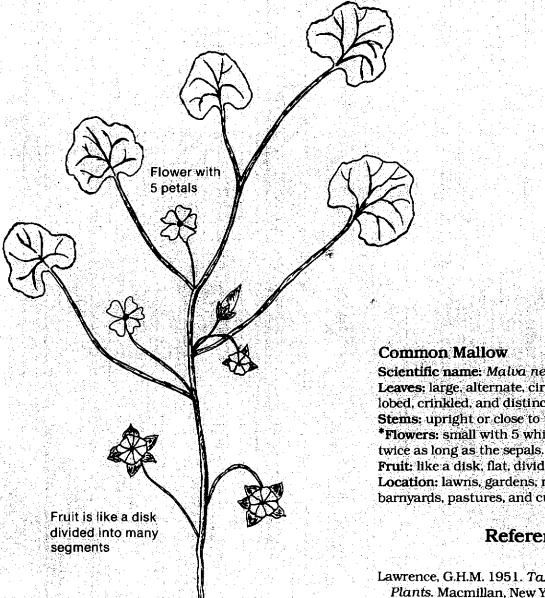
Stem: with 1 to 2 distinct rows of hairs.
\*Flowers: small, white, with 5 deeply notched petals.

Fruit: cylindrical, splitting into 5 parts when mature.

Location: lawns, gardens, dooryards, waste areas, woodland thickets, pastures, meadows, and cultivated fields.

### **Mallow Family**

(Malvaceae)



#### Common Mallow

Scientific name: Malva neglecta Wallr. Leaves: large, alternate, circular or heart-shaped, lobed, crinkled, and distinctly veined. Stems: upright or close to the ground, hairy. \*Flowers: small with 5 whitish-pink petals about

Fruit: like a disk, flat, dividing into many parts. Location: lawns, gardens, roadsides, waste areas, barnyards, pastures, and cultivated fields.

#### References

Lawrence, G.H.M. 1951. Taxonomy of Vascular Plants. Macmillan, New York. Fernald, M.L. 1970. Gray's Manual of Botany, 8th edition. D. Van Nostrand Company, New York. Gleason, H.A. 1952. The New Britton and Brown Illustrated Flora of the United States and Adjacent Canada. Lancaster Press, Lancaster, Pennsylvania.

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