Using this key. This key describes common broadleaf weed seedlings found in corn and soybeans in Illinois. It focuses primarily on characteristics of the true leaves, but in some cases the cotyledons are important (see figure below). Options A, B, and C describe weeds that have an alternate leaf arrangement. Option D contains weeds with an opposite leaf arrangement. The leaves of most weeds are either all alternate or all opposite. However, in some weeds, the early true leaves are opposite but later leaves are alternate. Note those exceptions given in the key. (Cotyledons are always opposite.) Once leaf arrangement has been determined, other characteristics of the leaves and cotyledons are needed to follow the key. It's very common when using a key to try more than one route before reaching the correct species. The sketches of many of the weeds are approximately life size. Others are roughly one-half as large as actual size and are indicated by 1/2X beside the sketch.

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OPTION C.
FIRST TRUE LEAVES
Arrangement: ALTERNATE

Leaves alternate

Shape: Oval  Ovalate  Elliptic  Lanceolate  Oblong Spoon shaped

1st true leaves lanceolate to elliptic

True leaves densely hairy
(or sparsely hairy)

1st true leaves ovate to oval

Plants with distinctive odor when crushed

True leaves covered with mealy white “granules” or “frost”

True leaves without white “granules” or “frost”

Plants with ochrea; no odor

True leaves hairless (or sparsely hairy)

True leaves ovate to oblong

Leaf underside often purplish

Leaves may be sparsely hairy

True leaves without notched tip

Ochrea

True leaves with notched tip

Leaf underside often reddish

1st true leaves with pointed tip; cotyledons ovate

1st true leaves without pointed tip; cotyledons ovate

Cotyledon midrib prominent

Wild Mustard

Pennsylvania Smartweed

Smooth Pigweed or Redroot Pigweed

Eastern Black Nightshade

Venice Mallow

Kochia

Jimsonweed

Common Lambsquarters

Tall Waterhemp

Prickly Sida

OPTION D.
FIRST TRUE LEAVES
Arrangement: OPPOSITE

Leaves opposite

True leaves ovate

True leaves arrowhead shaped

True leaves not lobed

True leaves densely hairy
(or sparsely hairy)

True leaves with greater than 5 major lobes (“lacy” appearance)

True leaves without greater than 5 major lobes

Plant as large as a silver dollar at 2-leaf stage

Plants as large as a quarter at 2-leaf stage

Later leaves alternate

True leaves rough textured

Cotyledons, if present, lanceolate to elliptic

Cotyledons, if absent

Cotyledons, if present, lanceolate

Cotyledons, if present, oblong

Cotyledons, if present, oblong

Common Ragweed

Honeysuckle Milkweed (seedling)

Common Sunflower

Common Cocklebur

Common Milkweed (seedling)

Hemp Dogbane (seedling)