

DEPARTMENT OF
B · O · T · A · N · Y



PLANT · PATHOLOGY

PURDUE UNIVERSITY • WEST LAFAYETTE IN

Weed Management

Purdue Extension

Guidelines for Submitting Digital Plant Images for Identification: Broadleaf Identification

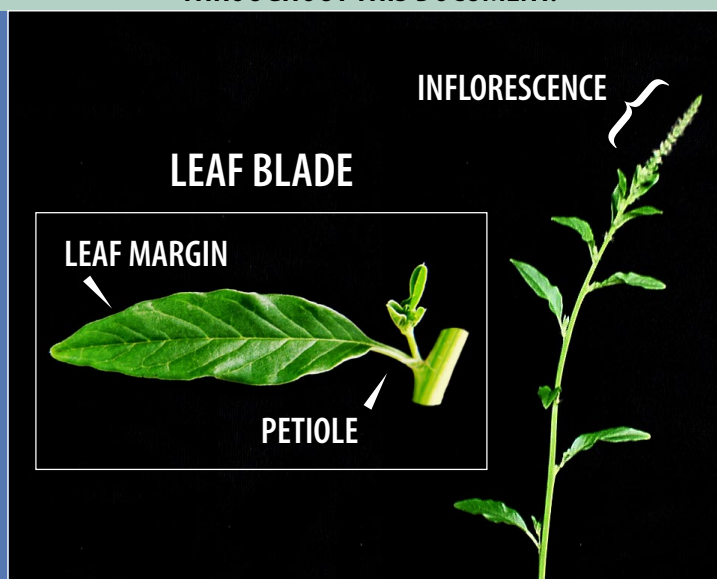
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The accuracy of identifying a plant from digital images is dependent on the information captured in the images. The better the image, the better the diagnosis. Certain plant features are necessary for species identification. It may be beneficial to have an image of the entire plant, but it is unlikely for a plant to be positively identified from a single image. Consider submitting multiple images, each one focused

on a particular morphological feature. In the columns below are illustrations of important plant features for three broadleaf plants. Note the level of detail needed for each morphological feature. All outlined features do not apply to every plant, while some plants may have other features to consider. When in doubt, take the extra image; it may be the key to correct identification of the plant.

ILLUSTRATION OF THE VARIOUS PLANT PARTS USED THROUGHOUT THIS DOCUMENT.



Entire plant. To give the diagnostician a general overview of the plant.

CANADA THISTLE



COMMON RAGWEED



VELVETLEAF



Leaf arrangement on the plant stem.

Alternate



CANADA THISTLE

Opposite



COMMON RAGWEED

Alternate



VELVETLEAF

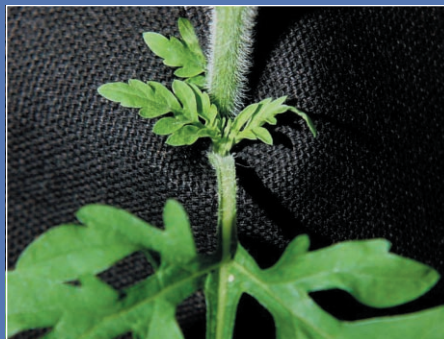
Leaf attachment to the plant stem.

Sessile



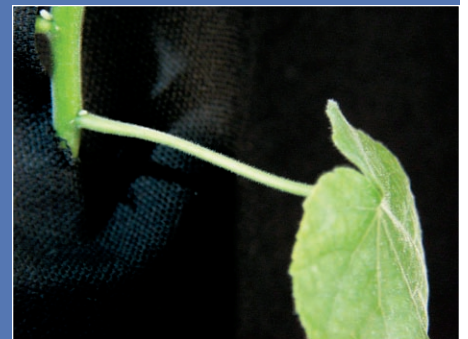
CANADA THISTLE

Petiole



COMMON RAGWEED

Petiole



VELVETLEAF

Leaf blade shape. Multiple leaf shapes may be found on the same plant.

Oblong



CANADA THISTLE

Cordate



COMMON RAGWEED

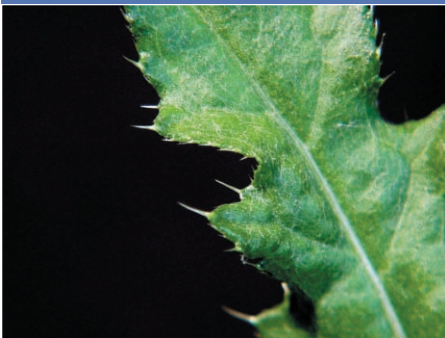
Orbicular



VELVETLEAF

Leaf margin.

Doubly serrate



CANADA THISTLE

Dissected



COMMON RAGWEED

Undulate



VELVETLEAF

Root system.

Perennial System • 3 connected plants



CANADA THISTLE

Simple taproot



COMMON RAGWEED

Simple taproot



VELVETLEAF

Inflorescence.

Cluster of heads



CANADA THISTLE

Raceme of male flowers



COMMON RAGWEED

Solitary



VELVETLEAF

Seed. Even genetically similar species usually have distinct seed characteristics.

Achene



CANADA THISTLE

Achene



COMMON RAGWEED

Seed



VELVETLEAF

Special characteristics of some species.

Sheathing stipules (ocrea)

• typical of smartweeds



Rosette growth habit

• typical of most biennials & some winter annuals



Compound leaves

• typical of many plant families



NEW 5/01

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