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Pitted Morningglory

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Pitted Morningglory *Ipomoea lacunosa* (L.)

Also known as: small whiteflowered morningglory, white morningglory, white star.

Classification and Description

Pitted morningglory is a member of the Convolvulaceae or morningglory family. It is an annual climbing or trailing vine that is thought to be native to tropical or subtropical North America. This vine can grow to lengths of 6 feet. Pitted morningglory cotyledons are sharply indented, lack hairs (glabrous), may be green or purplish, and are pointed. Stems are highly branched, smooth to slightly hairy, and vining or climbing. The leaves are alternate and heart-shaped, tapering to a point. The leaves may be slightly hairy or smooth and they are on long petioles. Leaves may have purple margins. Flowers are white, funnel-shaped and close to an inch broad. Pitted morningglory has a taproot system. Fruit is enclosed in a capsule and the seeds are black and somewhat large. The deeply indented cotyledon lobes help distinguish this species from other morningglories. In addition, the white flowers set it apart from tall morningglory, which typically has large, showy, purple flowers.

Weed Status and Injury

Pitted morningglory can be an invasive pest in agronomic crops in Tennessee, especially cotton, corn and soybeans. It can also be found in nurseries, landscapes, low ground, waste areas and fence rows. Its vining, climbing nature makes it a difficult weed to culturally control. Pitted morningglory can emerge from April until October in Tennessee. Thin crop stands that allow light to reach the soil favor the emergence of this weed. In addition, corn fields that have lost their tops due to maturity, wind or insect damage can also develop problems with morningglory infestation late in the season. Without a doubt, crops wrapped in pitted morningglory can complicate harvest efficiency.

Interesting Facts

The Convolvulaceae family of plants is a large group, with more than 59 genera and 1,800 species of mostly trailing and climbing vines and a few shrubs and small trees. There are more than 500 species of *Ipomoea*.



Small white flowers of pitted morningglory compared to purple flower of tall morningglory



Sharply indented cotyledons with purple leaf margins

Ipomoea comes from Greek and means worm-like. This is in reference to the vining habit of morningglories. The species name *lacunosa* means with holes or pits and most likely refers to the venation of the leaves. Several species of morningglories are grown as ornamental plants in gardens and landscapes. Morningglories are wild hosts for clouded

plant bugs, a common insect pest of cotton in Tennessee. Several species of butterflies enjoy the showy morningglory flowers.

Management Considerations

The ability of pitted morningglory to emerge throughout the growing season makes it very difficult to manage. There are a number of herbicides commonly used in cotton, corn and soybeans that control this weed. Typically it takes sequential applications of different herbicides to obtain consistent control in most Tennessee row crops. Please refer to the *Weed Control Manual for Tennessee Row Crops* (UT Extension PB 1580) for specific herbicides and management recommendations within various crops.

References

Gleason, H. A. and A. Cronquist. 1963. *Manual of vascular plants*. PWS Publishers. Boston, MA 02116. Pp 810.

Southern Weed Science Society. 2006. *Weed identification guide*. Southern Weed Science Society. 1508 University Ave. Champaign, IL.

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Pitted morningglory wrapping up corn



Pitted morningglory competing with soybeans