

# Hophornbeam Copperleaf

*Larry Steckel, Assistant Professor, Plant Sciences*

**Hophornbeam Copperleaf** *Acalypha ostryifolia* Riddell. Also known as pineland three-seeded mercury.

## Classification and Description

Hophornbeam (H) copperleaf is a member of the Euphorbiaceae or spurge family. H copperleaf has a very characteristic heart-shaped serrated leaf. The other copperleaf species in Tennessee, Virginia copperleaf, does not have serrations on the leaves. H copperleaf can grow to heights of 1 to 4 feet. Its leaves are alternate; blades simple. Tennessee producers sometimes misidentify it as a pigweed. The reason for this mistake is that H copperleaf has a similar emergence pattern as pigweed. In addition, it is very tolerant to ALS-inhibiting herbicides such as Envoke®, Classic® and Steadfast®, which is also consistent with the pigweed species Palmer amaranth. H copperleaf typically emerges from June to September and reproduces by seeds numbering as high as 12,500 seeds per plant, according to a Kansas study. The male flowers of H copperleaf are found on axillary spikes, while the female flowers are on a long terminal spike.

## Historical

H copperleaf is native to Tennessee and can be found throughout the state in agronomic crops, pastures, orchards, roadsides and waste areas. H copperleaf was not a major problem in Tennessee agronomic crops until early this decade. The advent of no-till row crop production along with Roundup Ready® crops has become a good niche environment for this weed. The reduction in the use of cultivation and applications of soil-applied residual herbicides has helped this weed become more established in Tennessee. Its ability to germinate from June to September allows it to emerge after most typical post applications have been applied, which enables H. copperleaf to flourish in the current row-crop environment.

## Weed Status and Injury

H copperleaf can be found across many fields in mid to late summer. It is tolerant to ALS-inhibiting herbicides often used post over the top of cotton, corn and soybeans. This would include Envoke® and Staple® in cotton, Beacon® and Steadfast® in corn and Classic® and Pursuit® in soybeans. H copperleaf also has some tolerance to glyphosate. There are no data on the competitive ability of this weed to



*Late-emerging copperleaf in cotton*



*Serrated heart-shaped leaf*

row crops. However, since it typically emerges much later than the crop, its ability to drastically reduce yield is probably not great.

### Interesting Fact

Most plants from the spurge family have a milky sap. H copperleaf does not share this characteristic.

### Management Considerations

Management of H copperleaf can be effectively accomplished with a number of herbicides, including in corn atrazine pre followed by Clarity® or 2,4-D post. In soybeans, use Prowl® followed by Reflex® or Blazer® post; and in cotton Dual Magnum® early post followed by Valor® or Aim® post direct. Be sure to refer to the labels for specific rates and timing direction.

### References

- Baldwin, F., P.Santelmann, and H. Greer. 1974. Weed control systems for hophornbeam copperleaf control in peanuts. *Agron. J.* 66:789-792.
- Gleason, H. A. and A. Cronquist. 1963. *Manual of vascular plants.* Willard Grant Press, Boston, Ma. Pg 440.
- Horak, M. J., Z. Gao, D. E. Peterson, and L. D. Maddux. 1998. Hophornbeam copperleaf (*Acalypha ostryifolia*) Biology and Control. *Weed Tech.* 12:515-521

*Photo Credits: L. Steckel*



*Late-emerging copperleaf in corn*