



### Chamberbitter (*Phyllanthus niruri*)

**Introduction:** Chamberbitter, Niruri, Gripweed, or Leafflower, (*Phyllanthus niruri*) is a summer annual weed that is commonly found in turfgrass and ornamentals that germinates with warm soil temperatures. Niruri is a problem in turfgrass because of its ability to survive repeated low mowings. There are many species of *Phyllanthus*, most of which are native to Asia.



**Description:** Like many difficult summer annual weeds, *Phyllanthus* is in the Euphorbiaceae family (spurge family). *Phyllanthus* species can be annual or perennial, but weed species in this country are mostly annual. Leaves are alternate, entire (the small leaflet is considered a leaf). *Phyllanthus* reproduces by seeds, which can arise in the axil of every leaf. Each seed pod contains several seeds (usually three). These seeds pods, on the underside of the leaves are quite unique, and help identify the plant as being in the *Phyllanthus* genus. Depending on species, *Phyllanthus* can be 2 to 36 inches tall. Seeds tend to germinate in warm temperatures (above 70°F), and tend to be seen in mid to late summer in Georgia.

#### Control in Turfgrass

**Preemergence Herbicides:** In warm season turfgrass, (Centipedegrass, St. Augustinegrass, Bermudagrass, and Zoysiagrass) both Gallery or Atrazine provide good preemergence control of *Phyllanthus* from seed. Being a late season summer annual, preemergence herbicide applications applied between April and early May will provide the best application timing for controlling *Phyllanthus*.

**Postemergence** control of *Phyllanthus* can be achieved in St. Augustinegrass and Centipedegrass with two applications of atrazine applied approximately 21 days apart. A product called Prompt (BASF, contains atrazine + bentazon), can be substituted at recommended rates, applying two applications approximately 21 days apart.

#### Control in Ornamentals

**Preemergence:** In Georgia, all the weedy *Phyllanthus* arise from seed every year. This means that emergence of many plants can be prevented with a 2 to 4 inch layer of mulch. With severe *Phyllanthus*

pressure, preemergence herbicide applications should be applied in January / February and again in March / April. One or two additional applications can be applied (June / July and/or September / October). Some of the best granular preemergence herbicides for controlling *Phyllanthus* from seed are: Biathlon, Broadstar, Freehand, Jewel, OHII, Ronstar, Rout, Snapshot, Showcase, and XL). Most of these products can be custom mixed as a spray, but single sprays of Barricade, Broadstar, Gallery, Pendulum, Surflan, and Tower can provide good control of *Phyllanthus* from seed.

**Postemergence:** Currently, there is no selective postemergence herbicide available that will provide over-the-top control of *Phyllanthus* in ornamentals. Post directed applications of glyphosate (i.e Roundup Pro, Glyphos, many more) or Finale will provide good non-selective control of *Phyllanthus*. Care should be taken to avoid getting non-selective herbicides on leaf, stem, or exposed roots of desirable ornamentals.

Hand-weeding or physically removing *Phyllanthus* is an option and should be performed when ground is moist. There are also several non-selective postemergence organic herbicides that can be sprayed over-the-top of *Phyllanthus*, and can provide control of this plant with one or two applications. Products currently on the market contain: acetic acid, capric acid, clove oil, cinnamon oil, fatty acids, lemon oil, malic acid, and strong soaps. As with any herbicide, always follow labeled directions.