

Triple Threat Combination for Goosegrass Control



CHARACTERISTICS OF GOOSEGRASS

- Germinates when soil temperatures are above 60° F
- Germinates later than other summer annuals such as crabgrass
- Requires a season-long program incorporating both pre- and post-emergent herbicides

Goosegrass (*Eleusine indica*) is a troublesome summer annual weed that thrives in areas with compacted soils and thin turf. It is particularly aggressive on golf courses with frequent traffic. Its bunch-type, prostrate growth habit and lack of rooting at the nodes severely detract from the uniformity, playability and safety of infested turfgrasses.

Goosegrass, a warm-season annual grass, develops in leafy clumps. It is a prolific seed producer, and in most cases, has three to seven finger-like stems. Often, 15 to 20 stems are produced by a mature plant and as many as 50,000 seeds can be produced by a single plant. Once goosegrass is established, annual infestations are likely to occur.



CONTROLLING GOOSEGRASS IN SUBTROPICAL CLIMATES

Goosegrass is particularly difficult to control in subtropical climates such as Florida. Here, it persists as a perennial weed and cannot be controlled by pre-emergent herbicides alone. Additionally, the state of Florida's ban on arsenical herbicides, such as MSMA, severely limits the post-emergence weed control options available to turfgrass managers.

Research at the University of Florida, supported by Syngenta, yields an exciting new solution for goosegrass control in bermudagrass turf. The Special Local Need 24(c) recommendation approved in Florida recommends a tank-mixture of **TENACITY®, PRINCEP® LIQUID AND PENNANT MAGNUM® HERBICIDES**, offering fantastic post-emergent goosegrass removal from actively growing bermudagrass.

GOOSEGRASS CONTROL TRIAL COMPARISONS



Untreated goosegrass trial



MSMA applied 40 fl oz/A + Sencor® 75 herbicide applied 2.7 fl oz/A



Revolver® herbicide applied 26 fl oz/A + Sencor applied 2.7 fl oz/A



Tenacity® herbicide applied 8 fl oz/A + Princep® Liquid herbicide applied 20 fl oz/A + Pennant Magnum® herbicide applied 21 fl oz/A

This treatment program provides excellent goosegrass control while cleaning up other troublesome weeds listed on each products' label such as:

- Signalgrass (*Brachiaria* spp.)
- Yellow nutsedge
- Florida pusley
- Crabgrass
- Doveweed

Tank mixing Tenacity, Princep Liquid and Pennant Magnum herbicides will provide an unmatched balance of weed control and turf safety, offering a treatment that is economical for applications to golf course fairways and roughs.

It is recommended to follow this program for maximum goosegrass control:

- Begin application when bermudagrass is actively growing to reduce phytotoxicity, speed up recovery and facilitate turf growth
- Depending on severity of goosegrass, apply Tenacity at 5 to 8 fl oz/A + Princep Liquid at 15 to 25 fl oz/A + Pennant Magnum at 20.8 fl oz/A
- Use higher rates for control of mature stands of perennial goosegrass and multi-tillered plants; lower rates are effective for less mature infestations
- Repeat the applications two weeks later
- Include Pennant Magnum in one application, as it enhances control between 10-15%
- Apply mixture with 40 to 60 gallons of water per acre with flat-fan nozzles producing medium-coarse droplets
- Add a non-ionic surfactant at 0.25% to 0.5% v/v of final spray solution

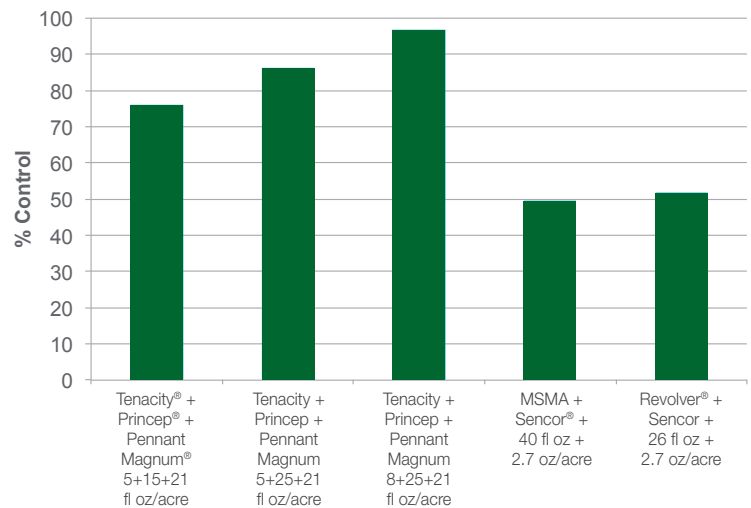
BENEFITS OF TENACITY + PRINCEP + PENNANT

- ✓ Unsurpassed control of annual and perennial goosegrass including multi-leaf and mature, multi-tillered plants
- ✓ Turf safety aligns with current herbicide industry standards for goosegrass control
- ✓ Broad-spectrum, pre- and post-emergent control of many grasses, broadleaves and sedges as labeled on the Tenacity, Princep and Pennant labels
- ✓ Built-in rotation of multiple modes of action incorporating three classes of chemistry with pre-and post-emergent activity generates powerful resistance management

APPLICATION PRECAUTIONS

- Common bermudagrasses (including cultivars such as Sahara, Vamont, Yukon, and Mohawk) and zoysiagrasses are very sensitive to the mixture of Tenacity + Princep + Pennant Magnum. Do not apply where common bermudagrass or zoysiagrass is the desired turf type or when removal or extreme phytotoxicity is not acceptable.
- The three-way tank mix induces mild to moderate phytotoxicity in Tifway 419 hybrid bermudagrass. Full recovery typically occurs within 7 to 10 days after application, but the severity and recovery time vary based on turf conditions and environmental factors.
- The safety of this tank mix has not been tested on seashore paspalum or bermudagrass varieties other than those listed above. Before applying on a large scale, test the mixture in an inconspicuous location to determine the level of turf safety in your location.
- Applications to areas that are predominately goosegrass will leave significant voids in the desired turf. Practices such as fertilization and irrigation may be required to speed re-establishment of the desired turfgrass.

EXCEED STANDARD LEVELS OF GOOSEGRASS CONTROL



Average of 12 trials in Florida, Summer 2014

To learn more about how to control goosegrass with Tenacity, Princep and Pennant Magnum, contact your local **Syngenta territory manager** or visit **GreenCastOnline.com**.

 #GGTripleThreat



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