

**MANAGING LARGE PITTED MORNINGGLORY (*IPOMOEA LACUNOSA*) IN  
ROUNDUP-READY COTTON (*GOSSYPIUM HIRSUTUM*) WITH LAY-BY HERBICIDES**

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**Abstract**

With the rapid adoption of Roundup Ready cotton and the extensive use of glyphosate, several weed species such as morningglory have become very troublesome and the need for rescue treatments have become more common. Thus, a field experiment was conducted in South Georgia (Ocilla) during 2002 to compare fourteen herbicide treatments for the control of two to three foot long pitted morningglory.

Treatments were replicated four times in a randomized complete block design. Layby options included Roundup UltraMax (1.6 pt/A) alone or mixed with Aim 2 EC (0.8 or 1.6 oz/A), Valor (1 oz/A), Staple (0.8 oz/A), Direx (1.5 pt/A), MSMA (2.5 pt/A), or Harvade (8 oz/A). Additional treatments consisted of MSMA (2.5 pt/A) plus Valor (2 oz/A), Caparol (2 pt/A), Caparol (2 pt/A) plus Cobra (9 oz/A), Cobra (12 oz/A), or Bladex (2 pt/A). Caparol (2 pt/A) plus Aim 2 EC (1 oz/A) and a non-treated control were also included. Crop oil concentrate was included with all Aim and Harvade treatments. The formulation of MSMA used in the experiment contained a pre-formulated adjuvant system.

At 5 days after application (DAA), cotton injury was less than 8% by all herbicide treatments except Roundup plus Aim which injured cotton 12 to 15%. Cotton recovered quickly from this stem necrosis with less than 5% injury by 16 DAA.

Roundup controlled morningglory 52% at 5 DAA. All treatments except Roundup plus Direx were at least 10% more effective than Roundup applied alone. Greater than 85% control was noted with Aim treatments and with Roundup plus Valor.

At 16 DAA, morningglory control was greater than 90% with Roundup plus Aim or Valor and with Cobra plus MSMA. Control from most treatments improved from 5 to 16 days after application except for the noticeable loss in control by Caparol plus Aim which was due to morningglory regrowth.

By 37 DAA, the treatments of Roundup plus Aim or Valor and Cobra plus MSMA continued to be very effective (84 to 91%). However, Roundup plus MSMA or Staple, Valor plus MSMA, and Caparol plus Cobra plus MSMA also provided 86 to 94% control.

Yields were similar and ranged from 1300 to 1500 lbs per acre. This could have been due to early-season weed competition as treatments were not applied until layby. Additionally, the morningglory was infected by a fungus causing an epidemic of rust disease just prior to harvest eliminating harvest concerns.