University of Georgia Herbicide Programs for Tropical Spiderwort Control in Cotton

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Tropical spiderwort is a noxious, exotic, invasive weed that has spread quickly and has become a serious pest in many Georgia agricultural production areas (Figure 1). The increase in prevalence of tropical spiderwort in Georgia may be attributed in part to 1) adoption of weed management programs that lack residual herbicides and 2) adoption of reduced-tillage production systems.

Upon initial observation, tropical spiderwort appears to be a grass (Figure 2). While not a grass, it is a monocot (in contrast to broadleaf weeds, which are dicots) with leaves and stems usually fleshy and succulent. The stems will creep along the ground and root at the nodes. Vegetative cuttings from stems are capable of rooting and reestablishing following cultivation. Tropical spiderwort will produce seed above and below ground (Figure 3).

Tables 1 through 3 are suggestions for the management of different levels of tropical spiderwort infestations in Georgia cotton. Refer to the most recent cotton production guide or Georgia Pest Management Handbook for herbicide rates and proper cotton sizes at time of application.

### Table 1. Managing SEVERE Infestations of Tropical Spiderwort in Roundup Ready (RR) Cotton.*

<table>
<thead>
<tr>
<th>Preemergence</th>
<th>Postemergence (1- to 4-leaf cotton)</th>
<th>Layby Directed²</th>
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<tbody>
<tr>
<td><em>(Planting before May 10)</em> Use at-plant herbicide appropriate for other weeds.</td>
<td>Glyphosate + Dual Magnum¹ (12 oz/A) (Spiderwort should be less than 1 inch and the Dual must completely cover the soil.)</td>
<td>Diuron + MSMA + Dual Magnum (8-12 oz/A)</td>
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<tr>
<td><em>(Planting after May 10)</em> Prowl + Cotoran</td>
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* Deep turning the land will provide fair control of spiderwort. This practice may be needed in addition to herbicides.

¹ Dual Magnum contains S-metolachlor. The generic brands Brawl and Medal also contain S-metolachlor. Other generic brands contain metolachlor, a mixture of R and S isomers. Per unit of product, brands containing S-metolachlor provide longer control. Sequence contains a mixture of glyphosate + S-metolachlor.

² Diuron + MSMA + Dual is often more effective than glyphosate + Aim + Dual because of additional residual control provided by diuron. In areas where hooded applications are available, glyphosate + Valor + Dual would be extremely effective.

³ Prowl will not provide control of spiderwort but will suppress other weeds.
Table 2. Managing MODERATE Infestations of Tropical Spiderwort in RR Cotton.

| Preemergence | Postemergence (1- to 4-leaf cotton) | Layby Directed
|--------------|-------------------------------------|--------------------------
| (Planting before May 10) Use at-plant herbicide appropriate for other weeds. | Glyphosate + Dual Magnum1 (12 oz/A) (Spiderwort should be less than 1 inch and the Dual must completely cover the soil.) | Diuron + MSMA or Glyphosate + diuron or Glyphosate + Aim + Dual Magnum (8-12 oz/A)
| (Planting after May 10) Prowl3 + Cotoran | | |

1 Dual Magnum contains S-metolachlor. The generic brands Brawl and Medal also contain S-metolachlor. Other generic brands contain metolachlor, a mixture of R and S isomers. Per unit of product, brands containing S-metolachlor provide longer control. Sequence contains a mixture of glyphosate + S-metolachlor.

2 Diuron + MSMA + Dual is often more effective than glyphosate + Aim + Dual because of additional residual control provided by diuron. In areas where hooded applications are available, glyphosate + Valor + Dual would be extremely effective.

3 Prowl will not provide control of spiderwort but will suppress other weeds.

Table 3. Managing LIGHT Infestations or DELAYING ARRIVAL of Tropical Spiderwort in RR Cotton.

| Preemergence | Postemergence (1- to 4-leaf cotton) | Layby Directed
|--------------|-------------------------------------|--------------------------
| Use at-plant herbicide appropriate for other weeds. | Glyphosate + Dual Magnum1 (16 oz/A) (Spiderwort should be less than 1 inch and the Dual must be able to completely cover the soil.) | Valor + MSMA Direx + MSMA Glyphosate + Valor Glyphosate + Direx

1 Dual Magnum contains S-metolachlor. The generic brands Brawl and Medal also contain S-metolachlor. Other generic brands contain metolachlor, a mixture of R and S isomers. Per unit of product, brands containing S-metolachlor provide longer control. Sequence contains a mixture of glyphosate + S-metolachlor.

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