**INTRODUCTION**

Onion thrips (Thrips tabaci) is an important insect pest of onion. They feed on leaf tissue causing reduced photosynthesis and onion yield. OMRI Listed insecticides are commonly used for organic management of onion thrips, but few effective products are available, and overuse of the same product may lead to insecticide resistance. Cultural practices such as thrips-resistant plants and reflective mulches have shown promise of reducing onion thrips in onion. The goal of our research was to identify cultural and chemical management tactics to effectively manage onion thrips in organic onions.

**OBJECTIVE:** Evaluate the efficacy of plastic mulches, thrips-resistant cultivars and OMRI Listed insecticides for onion thrips management in onion.

**METHODS**

Table 1: Treatment list. The experiment was a split-split-plot design with six replicates.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Treatment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole plot</td>
<td>mulch type (2)</td>
<td>White, reflective</td>
</tr>
<tr>
<td>Sub-plot</td>
<td>onion cultivar (3)</td>
<td>‘Bradley’ (susceptible), ‘Rossa’ (semi-resistant), B5336 x B5351 (semi-resistant)</td>
</tr>
<tr>
<td>Sub-sub-plot</td>
<td>OMRI Listed insecticide (2)</td>
<td>Entrust (spinosad) + Trilogy (neem), untreated control</td>
</tr>
</tbody>
</table>

Seeded in greenhouse March 2018

Transplanted 4 Jun

Weed, disease management

Plants pulled 14 Sept, dried in the field

Adults and immatures thrips counted weekly on 15 plants / plot

Spray started at 1 thrips/leaf

Sprayed weekly (7)

Graded and weighed

**RESULTS**

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**Mulch**

![Image of onion thrips feeding](image1)

**Thrips**

**YIELD**

![Image of onion thrips feeding](image2)

**OMRI Listed insecticide**

**Thrips-resistant onion cultivars**

**SUMMARY**

- Reflective mulch
- Resistant cultivar B5336xB5351 (compared to susceptible ‘Bradley’) 
- Entrust + Trilogy application

**CONCLUSION**

The OMRI Listed insecticide Entrust + Trilogy and the B5336 x B5351 cultivar could be used effectively to reduce thrips in organic onions. Despite not reducing thrips numbers, reflective mulch had the added benefit of producing a higher yield than white mulch.

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