New Pest Response Guidelines

*Pissodes castaneus*

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New Pest Response Guidelines (NPRG)

- Pest Information
- Identification
- Survey Procedures
- Regulatory Procedures
- Control Procedures
- Environmental Compliance
- Pathways
- References
- Other
**Pissodes castaneus** – Pest Information: Historical Information and Classification

- Major cause of pine dieback
- Secondary pest responsible for death of pines
- High plasticity and adaptive ability

**Table 2-1** Classification of *Pissodes castaneus* (DeGeer)

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Arthropoda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Insecta</td>
</tr>
<tr>
<td>Order</td>
<td>Coleoptera</td>
</tr>
<tr>
<td>Family</td>
<td>Curculionidae</td>
</tr>
<tr>
<td>Genus</td>
<td>Pissodes</td>
</tr>
<tr>
<td>Full Name</td>
<td><em>Pissodes castaneus</em> (De Geer)</td>
</tr>
<tr>
<td>Preferred Common Name</td>
<td>Small Banded Pine Weevil</td>
</tr>
</tbody>
</table>

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Pissodes castaneus – Pest Information

- Distribution
  - Europe - throughout
  - Asia – Turkey and Siberia
  - Africa – Algeria, Morocco, Madeira Islands, Canary Islands
  - South America – Uruguay and Argentina
Pissodes castaneus – Pest Information: Hosts

Hosts

- **Pinaceae**
  - Abies spp. – fir
  - Larix decidua – common larch
  - Pinus spp. – pines (ex. *P. pinaster*)

- **Taxaceae**
  - *Taxus baccata* – English yew (CABI, 2011)

- **stressed or young** trees prefentially
High Phenological Variability

- One generation/two years to three generations per year
- Two types of development: 11-12 months and 2-3 months
- Adults and mature larvae overwinter
*Pissodes castaneus* – Pest Information

**Symptoms**

Gomez and Hartel, 2010

Prefer 5-7cm

Gomez and Hartel, 2010

Gomez and Hartel, 2010
*Pissodes castaneus* – Pest Information

**Symptoms**

Gomez and Hartel, 2010

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Gomez and Hartel, 2010

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Pissodes castaneus – Symptoms

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Pissodes castaneus – Survey

- Trap logs
- Pheromone Lures

Zaleski, 2009
**Pissodes castaneus – Control**

- Keep trees unstressed

- Natural enemies
  - High levels of parasitism
  - Parasitoids
  - Entomopathogenic Fungi

*Zaleski, 2009*
Pissodes castaneus - Pathways

- Current location and possibility for natural movement.
- Wood shipments
Pissodes castaneus – Association with Pathogens

- Which comes first – pathogen or weevil?

- *Cronartium flaccidum* – prefers to lay on edge of rust but avoids actual rust

- **Aleppo Pine Knot Disease** – In presence of *P. castaneus*, knots form. Without *P. castaneus*, no knots form.

- **Blue-stain fungus Leptographium serpens** – in presence of fungus, *P. castaneus* adults emerge earlier and in greater numbers. Prefer trees with the fungus. Not a vector for the fungus.
THANKS
PestLens