

## FRASER FIR IPM 2020 – PEST FACTS AT A GLANCE

### BALSAM TWIG APHID

*Mindarus abietinus*

**Where from:** Native to US

**Host plants:** All true fir

#### SYMPTOMS

- Needle curl – the tree may grow out of from spring until fall
- Sooty mold



#### LIFE CYCLE

**How overwinters:**

- Eggs on shoots
- Hatch in March over 3 week period
- Eggs lain in June



**# generations/year:** Only one with different forms, each requiring four molts to mature. The stem mother hatches from the egg and produces live young. The second form is a winged aphid and produces live young. The last form includes males and females that mate to produce eggs.

- Stem mother (all female)



- Winged adult (all female)



**Weather considerations:** The BTA is only a problem some years. Warm springs favor aphid hatching and reproduction. Cool weather at budbreak delays tree growth and maturation as well as predators, often resulting in more needle curl. Wet weather allows needles to grow out of tight curl.

**Important cultural practices:**

- Don't interplant
- Avoid excess nitrogen
- Maintain flowering groundcovers
- Clear cut fields in 1-2 years

**Scouting:** You can't predict aphid severity by the amount of damage the previous year. Scout for BTA eggs on shoots from July through February for an indication of potential damage. Examine developing cones for aphids in spring. Take foliage beats once all the twig aphids have hatched in April. Take into account predators.

**Biological control:**

- Hover fly larva
- Lady beetle larva
- Lace wing larva



**Control considerations:**

- Start treating fields the year before harvest – don't treat younger trees
- Remove cones before treating
- Rotate chemicals from year to year
- Retreating if treatment fails seldom works