

FRASER FIR IPM 2020 – PEST FACTS AT A GLANCE

WHITE GRUBS

Phyllophaga and Polyphylla species

Where from: Native to US

Host plants: Grasses, many other plants

SYMPTOMS

- Seedling decline, death



- Loss of small, feeder roots



LIFE CYCLE

How overwinters: As grub in soil

generations/year: Depending on species and elevation, one generation can take as long as 3 years. Adult females lay eggs from June through August, depending on species, which starts a new generation.

- Grubs are C-shaped with dark tip to abdomen
- Grubs that 'crawl' on their backs when put on the soil surface are Green June beetle grubs and don't feed on tree roots



Cultural practices: Beetles prefer to lay eggs in short grass. Leaving taller groundcovers discourages eggs from being laid. Groundcovers provide food source for grubs so they do not feed on tree roots.

Scouting: Do pre-plant scouting for grubs in the summer or early fall by digging holes in soil and sifting through the dirt to find grubs. Identify grub using raster patterns which are the pattern of hairs on underside of the tip of the abdomen. A good website for white grub ID is found at: ohioline.osu.edu/factsheet/hyg-2510

After planting, be sure to determine the cause of any dead seedlings to see if it is due to grubs or other causes such as Phytophthora root rot or drought.

Control considerations:

- Grubs are very difficult to control once trees are planted. Scout before planting to determine if grubs are present, especially when planting into old pastures.
- When planting into fields with grubs, dip seedling roots in bifenthrin to prevent grub feeding.
- When applying insecticides in planted fields, apply right before gentle rain. Only treat after soils have warmed and grubs are closer to the surface of the soil.