



Forest Health Protection, Southern Region

# INTRODUCED PINE SAWFLY,

*Diprion similis* (Hartig)

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**Importance.** -The introduced pine sawfly occurs from Canada to North Carolina, and in the central and lake states. Eastern white pine is its favored host, but it also attacks Scotch, red,jack, and Swiss mountain pines. Infestations of this insect can be very serious in young plantations of white pine grown for timber products or Christmas trees.

**Identifying the Insect.** - A full-grown larva is about 1 inch (25 mm) long, with a shiny, black head. The body has a black stripe on the back and numerous yellow and white spots on the sides. Larvae spin light brown, tough, leathery cocoons on the host tree, other vegetation, and ground litter. Adults resemble flies and are about 3/10 inch (8 mm) long and have four transparent wings.



Larva.

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**Identifying the Injury.** - Defoliation first occurs in the upper crown, giving it a thin appearance. First generation larvae feed on old needles, and later generations feed on both old and new needles, and sometimes

on the bark of twigs. Trees in the most exposed locations and in the overstory suffer the most defoliation. Repeated heavy defoliation can cause branch and even tree mortality.



Typical damage on white pine.

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**Biology.** - In the southern Appalachians, first generation adults emerge in early spring, about April. Eggs are laid in rows in the needles and covered with a light green substance. Hatch occurs in about 14 days. Larvae feed until cocoons are spun in late June through July. Second generation adults emerge in late July, and most larvae have finished feeding and spin cocoons by late September. There are two generations and sometimes a partial third. As a result of overlapping generations, all life stages can be observed in midsummer.

**Control.** - Introduced and natural enemies play an important role in control of the introduced pine sawfly. Chemical insecticides are effective in protecting ornamental plantings and Christmas tree plantations from defoliation.

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