



PINE NEEDLE SCALE

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PLANTS ATTACKED: Scotch, mugho, Austrian Pine; also present but seldom damaging on Eastern White Pine, Norway Spruce, and some other conifers.

DESCRIPTION OF DAMAGE: Damage is not apparent until large populations have been present for more than 1 or 2 seasons. Trees are stunted, grow slowly, have short needles and shoots. Occasionally the feeding of scales produces chlorotic, yellowish flecks on the needles, but normally this is not apparent. Heavily infested plants are seriously weakened and may be in a state of decline.

IDENTIFICATION: Scale covers are about 1/8" long, white, elongate, narrow in front and broad in back. Eggs under the scale covers are purplish in color. Crawlers and settled nymphs are reddish brown. Females are reddish in color beneath the white scale covers. Homoptera: Diaspididae, *Phenacaspis pinifoliae*

LIFE HISTORY: The hatching period is relatively short (7-10 days) in mid May and again in mid to late July. The first generation crawlers settle on old needles, since new growth is not fully developed until later. Second generation crawlers settle primarily on the current year's growth. Females produce 5-30 reddish purple eggs. Although the number of eggs laid is relatively small, two generations a year permits rapid buildup of infestations. In areas where infestations are large, lady beetle (especially the twice-stabbed lady beetle) is an effective predator.

CONTROL: Sprays are effective if applied after most eggs have hatched. Experience has shown that treatments for the summer generation may be more effective than the first. Control may be applied at either time.

REMARKS: Pine needle scale can be a serious pest of Christmas trees as well as ornamental trees and shrubs. Crawlers are blown by the wind and can be carried on birds.

