Needle Cast
FACT SHEET

GREEN DROP Tree Care







What It Is:

Needle cast on spruce trees is first noticed on lower older branches, attacking the second year old or older growth.

Needles may remain green when infected and may take up to a year to fall off. New needles may become infected but will not show symptoms. Needles turn yellow, then purple or brown in color.

Close inspection with a magnifying lens will show small black fruiting bodies (reproducing structures of the fungus) lined in rows on green or discolored infected needles. Damage usually starts from the bottom, up and from the center, outward.

After years of reoccurrence, branches with needle loss will die. Needle cast can cause severe defoliation, but infection rarely kills the tree. Aesthetic appearance can be greatly reduced.

Pine needles become infected during their first year, but do not show symptoms until the following spring. Needles initially appear reddish, followed by yellowing or a straw-colored appearance. These infected needles begin to cast or fall off the branch, leaving new growth at the branch tips, giving the branch a "lion tail" appearance. Brownish or reddish bands may be seen along needles, and are useful for diagnosis.

Needle cast is caused by many different species of fungus, affecting a number of coniferous tree species. Fungi overwinter in infected needles on trees and on needles that have fallen to the ground. Fruiting bodies release spores, causing new infections during wet conditions, primarily in spring and early summer, but infection can occur through until fall. The fungus can be spread by splashing or dripping water, wind or by mechanical means. Pruning or working on infected trees when wet can also spread the disease. High moisture levels and poor air circulation favor spread of the disease. It commonly occurs in larger plantings such as shelterbelts, Christmas tree plantations and nurseries.

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Control/Prevention:

Closely inspect trees before purchasing or planting. Prune infected trees only when dry. Tools should be sterilized between each cut. Remove as many dead needles from under the tree as possible, as dead needles are a primary disease source.

Copper based fungicides or chemicals containing chlorothalonil are preventative control measures. They do not cure the disease but prevent further spreading or re-occurrence.

Proper time of application is critical for control. Spray in springtime and again once needles are fully grown 3-4 weeks later. Several years of control may be needed.

- Avoid overcrowding plantings
- Attain good air circulation and proper spacing
- improve tree vigor
- Mulch and water when needed to prevent stress and help avoid needle cast infection
- Contact Green Drop Tree Care for a complimentary assesssment

Contact:

GREEN DROP Tree Care

Canada's Tree Expert

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