STALACTIFORM BLISTER RUST

Cronartium coleosporioides (Arth.)

DISTRIBUTION

Throughout the host range in BC, but limited to where both hosts occur.

Figure 172. Blisters contain orange spore masses. Note stripped bark due to squirrel feeding.

HOST SUSCEPTIBILITY:

Lodgepole pine, ponderosa pine, and any of the introduced hard pines. Evident on regeneration through mature trees.

SIGNS & SYMPTOMS:

Figure 173. Elongate stem canker.

Resinous stem and branch cankers, with associated branch flagging are produced. Cankers on smaller stems and branches are spindle-shaped with swollen bark, which often girdles the stem. Cankers on older trees are elongate, diamond-shaped, yellow-faced, and may be greater than 9 m long. The width of the cankers is only about one-tenth the length. Rodents often feed on cankered bark, leaving exposed wood. In the absence of severe rodent feeding, white blisters containing orange-yellow spores are usually produced near the canker margin in spring or early summer. The rest of the year cankers can be identified by their size, shape, and by sunken, dead bark and resinosis. Secondary insects or fungi may also be associated with cankers. This disease has five alternate hosts: Indian paintbrush, yellow owl's clover, cow wheat, and bracted lousewort. All are members of the figwort family.

DAMAGE:

Mortality, resulting from girdling by stem cankers, may occur on young trees, but a single stem canker usually will not girdle a larger tree. Resin impregnated sunken or flat areas and sweep of the bole are more typical results of stem cankers. Cankers may reduce wood quality and predispose trees to snow and wind breakage. Infections occur erratically across geographic regions and within stands due to distribution of the alternate hosts, climate, and susceptibility of the tree species and individual trees.

SIMILAR DAMAGE:

Atropellis cankers on older trees are very similar in shape, but they have the distinctive blue-black stained wood under the bark and do not have the conspicuous orange-yellow spores in the spring. Comandra blister rust cankers are shorter in length than the stalactiform cankers. Sweet-fern blister rust cankers on older trees can be distinguished by the longitudinal ridges. It can be difficult to tell the blister rusts apart on young trees or branches. The presence of the alternate hosts will help, but only microscopic examination of the spores is definitive.

Figure 174. Branch canker infection.