

When this study was initiated, it was hoped that oils could be found that would control the pest and dissipate rapidly from treated surfaces. Thus far, all the oils which have given good pear psylla control have been persistent upon pear leaves. Although petroleum oils have drawbacks they do offer promise as a means of control if resistance devel-

ops to the insecticides currently recommended.

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NOTE ON DAMAGE TO GRASSES IN THE PEACE RIVER REGION BY THE SPITTLEBUG, *PHILARONIA BILINEATA* SAY, (CERCOPIDAE:HEMIPTERA)

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ABSTRACT

Nymphs of the spittle bug, *Philaronia bilineata* Say, were observed to feed on seed stalks of Merion bluegrass near Dawson Creek, B.C. When nymphs fed on a tuft all the seed stalks turned white and died, regardless of how many nymphs were present. This suggested that the nymphs were phytotoxic or possibly a vector of a pathogenic organism. The damage differed from other types observed and studied. Red fescue was much less affected. Treatment with DDT is recommended.

In 1965 some fields of Merion bluegrass near Dawson Creek, British Columbia, were infested with a spittlebug, *Philaronia bilineata* Say, which caused damage of a type not previously noted in the Peace River region. The damage became evident in the last week of May when the earliest developing seed stalks, with heads partly emerged began to turn

white and appear dead (Fig. 1.). The damage is distinct from the so-called silver top, which occurs later in June when most of the seed heads have emerged, or from cutworm damage in which stalks are cut off at the grass crown.

Spittle masses, hidden by the grass crown, were present on the lower portions of seed stalks. In tufts of grass with more than one seed stalk, one or more nymphs might be pres-

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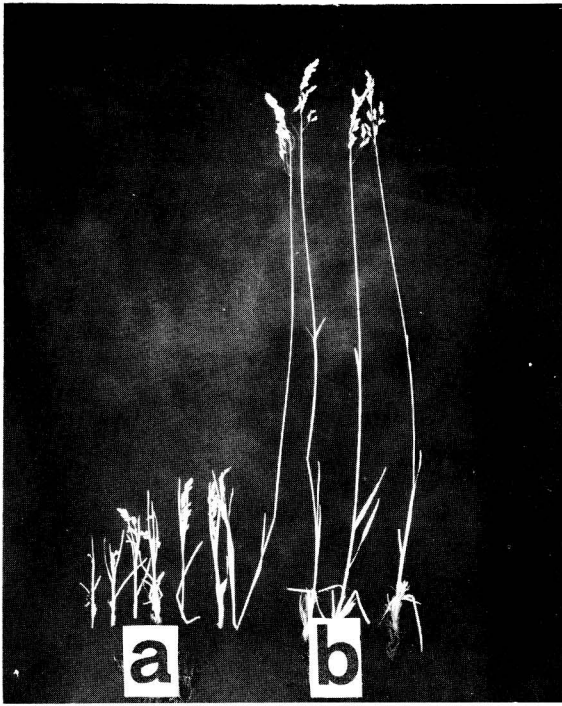


Fig. 1. Merion bluegrass. a. seed stalks killed by *P. bilineata*; b. normal, healthy seed stalks.

ent on each stalk, but in some tufts with several seed stalks only a single nymph was present. Nevertheless, whether one or more nymphs infested a tuft, all the seed stalks in the tuft turned white and died above the roots. These observations suggest that seed stalks may not die from simple feeding by the nymphs but rather from phytotoxemia or because *P. bilineata* is a vector of some pathogenic organism. Byers and Wells (1966) found that damage to Coastal bermudagrass in Georgia and other southeastern states resulted from phytotoxemia caused by the two-lined spittlebug, *Prosapia bicincta* (Say).

In Merion bluegrass adults of *P. bilineata* began to appear about June 9 and in one field were very numer-

ous by June 30, up to 50 or more being taken in one sweep with a 15-inch net. In this field the spittlebug nymphs killed about 10 per cent of the seed stalks. Infestations also occurred in red fescue but damage was much less than in Merion bluegrass.

Although spittlebugs may not be an annual pest of grasses in the Peace River region heavy infestations such as occurred in 1965 could result in economic loss of seed. Treatment of fields with DDT as recommended for control of silver top or cutworms will be effective against spittlebugs.

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