



Lowbush Blueberry Fact Sheet

The Blueberry Spanworm

Introduction

There are a number of species of spanworms which feed on the foliage of lowbush blueberry. In the past these insects were kept under control by the use of burning as a pruning method; which destroyed the overwintering eggs. Recently, the use of mowing as a pruning technique has replaced burning. As a result there has been an increase in the number of spanworm outbreaks. The principal species is the Blueberry Spanworm, *Itame argillacearia*

Packard. The following information refers specifically to the Blueberry Spanworm. There are also several other closely related species, all in the genus *Itame* which feed on blueberry. It is assumed that their biology is similar to that of the Blueberry Spanworm.

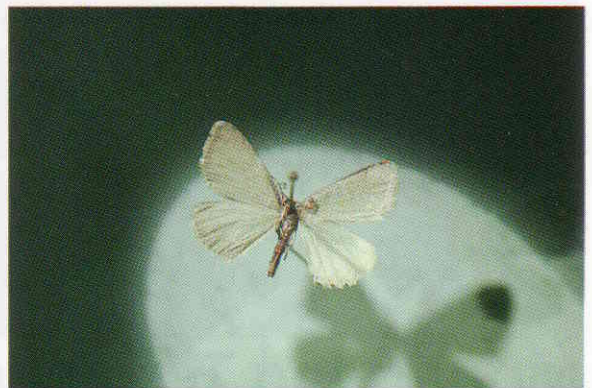


Fig. 1 - Blueberry Spanworm Moth.

Description

Adult blueberry spanworms are moths with grey-brown wings (Fig. 1). In the male moths the wings are mostly uniform in colour, the female moths have some darker spots on the wing. The wingspan is about 23-29 mm.

Spanworm caterpillars walk with a looping gait. They have three pairs of legs at the front end of their body, and two pairs near the back end.



Fig. 2 - Blueberry Spanworm larva or caterpillar.





The blueberry spanworm is also distinctively coloured (Fig. 2). The first instar larvae are tan or grey with a series of black spots. The older larvae are yellow-orange with a series of black spots along the body. In some cases these spots may appear to form a continuous stripe. The larvae range in length from 3 - 20 mm.

Biology

The blueberry spanworm overwinters as eggs in the leaf litter around the base of the blueberry plants. The eggs hatch in mid to late May, about the time that new sprouts begin to grow. The caterpillars are active mostly at night and feed on the leaves and buds. During the day many larvae drop to the ground and hide in the leaf litter. They feed until late June or early July. They pupate in the soil. Adult moths begin to emerge in late July. Eggs are laid on the leaves or on the ground. They do not hatch until the following year.

Damage

Damage is caused by the larvae feeding on the foliage and flower buds of the blueberry plant (Fig.3). In severe outbreaks the plants may be completely defoliated. In sprout fields the spanworms may keep the new growth eaten back so that areas of the field appear to have no new shoots.

Monitoring Technique

Blueberry spanworms can be monitored by sweeping the foliage with a 30 cm diameter insect sweep net. Crop fields should be sampled weekly during May and June. Sprout fields should be sampled weekly as soon as new shoots begin to grow.

It is suggested at least three samples per field in fields of 5 hectares or less be taken. Each sample should consist of 25 sweeps. For larger fields an additional sample should be taken per 5 hectares.

Action Threshold

Action thresholds for the blueberry spanworm and related species is 12 spanworms per 25 sweeps on crop fields, and 7 spanworms per 25 sweeps on sprout field. If more than one species of spanworm is present, include all of these in your count (Fig.4).





Fig. 3 - Damage caused by Blueberry Spanworm larvae.



Fig. 4 - A closely related species of spanworm which also feeds on blueberry.





Control

The blueberry spanworm is parasitized by several species of parasitic wasps. These help to keep populations in check during most years. However populations fluctuate from year to year.

Burning fields as a pruning technique will reduce the number of spanworms in the field.

Fields should be monitored as described above. If the population of spanworms exceeds the action threshold, it is necessary to apply an insecticide treatment to control this insect. Control products and rates of application are listed in the Lowbush Blueberry Protection Guide - ACC 1011.

Note

Nova Scotia growers can purchase sweep nets through the Blueberry Producers Association of Nova Scotia. They may also participate in the annual blueberry insect survey. For details about this program contact: Lorne Crozier, Entomologist, Plant Industry Branch, N.S.D.A.M., P.O. Box 550, Truro, N.S. B2N 5E3 PHONE 893-6548

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