Pasture Pests:

White Butterfly Information Sheet

Key Characteristics

- Butterflies are white with one or two black spots on their wings
- Caterpillars are green with a narrow orange strip down their backs
- Caterpillars may reach 25 mm long
- Found throughout New Zealand
- Caterpillars feed on all brassica types
- Severe feeding leaves only leaf viens.



Biology

Scientific name: Pieris rapae

White butterfly is common throughout the country and is a common pest of brassicas. Adult butterflies have creamy white wings with the tips of the forewings tipped with grey or black. Females have two black spots on each forewing while males have only one. Both have a single black spot on each hind wing. The average wingspan is about 50 mm. Butterflies are commonly seen flying above brassica crops or feeding on the nectar of flowers. The females lay yellow oval eggs singularly on the underside of brassica leaves. Each female can produce up to 400 eggs. In warm weather these hatch in 8-10 days giving rise to 1.5 mm long yellow/green caterpillars. As these grow they become a dull green colour with an orange strip down their backs. There are 5 caterpillar stages and eventually they reach about 25 mm long. They pupate off the host plant on fence posts, nearby shrubs or buildings. It takes 20-40 days from egg to pupa and a further 15-18 days to emerge as a new adult. Depending on temperature there can be three or four generations a year. They spend the winter as pupae with butterflies appearing again in spring.

Impact

White butterfly caterpillars feed on all brassica crops. While small, the larvae feed on surface tissue of the leaves but as they grow they eat through the leaf. In time the tissue between the leaf veins is skeletonised leaving only the leaf ribs. Damage by the caterpillars on forage crops, while noticeable, is seldom severe but occasionally can be. However when combined with damage from other brassica pests some form of control may be warranted. Scouting the crop will allow detection of caterpillars while they are small and allow treatment before damage reaches a high level.

Control

- Several biological control agents and generalist predators usually exert a high level of control of caterpillars.
- When damage by white butterfly caterpillars on their own or in combination with other brassica pests is severe application of an insecticide can be worthwhile. Several insecticides are registered for use against white butterfly caterpillars in forage brassica crops. These should be applied as early as possible to prevent damage becoming extensive.



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Insecticide	Application	Time of application
lambda-cyhalothrin (+/- primicarb)	spray	as required
maldison	spray	as required

 Consult your farm consultant, industry representative or the New Zealand Agricultural Manual for more information about chemical control.

Information prepared by AgResearch

