



NZ Forage Systems Fact Sheet

Pests of Plantain - Springtails

Key Points

1. New sowings are particularly susceptible as little else may be available to feed on.
2. All new sowings should be checked every three days to monitor the number and health of seedlings.
3. Damage from springtails can be widespread and occur rapidly.
4. Spraying is the only effective control measure.
5. Springtails may be controlled by adding insecticide to the last herbicide spray before sowing



This factsheet is one in a series available at www.foragesystems.co.nz and published by On-Farm Research, PO Box 1142, Hastings, NZ. While all due care has been taken in preparing this document, On-Farm Research and the sponsors accept no liability. People acting on this information do so at their own risk.

Springtails / Clover flea / Lucerne flea *Sminthurus viridis*

- Damage to plantain and clover plants results from young nymphs eating small holes in the leaves, giving the leaves a speckled appearance. Older nymphs and adults produce window like openings in the leaves. In large infestations they can severely affect the vigour of seedlings.
- Springtails are very small (<3mm long) and hard to see. They can range in colour from brown to green/yellow to almost white. They will jump away from you as you get close. Placing a piece of white cardboard among the plants and getting them to jump onto it is one way to see them.
- Springtails can be very damaging to plantain, most clovers (especially red, white and subterranean) and lucerne.
- Plant damage is seen mostly in the autumn but sometimes in the spring.
- Damage is less in summer when mostly eggs are present in the soil. These require a period of declining soil temperatures and increasing moisture to hatch. This is why high pest numbers build up in the autumn.
- For establishing plants, control should begin when damage is first seen as when there is little else to feed on, damage can escalate rapidly.
- There are no label recommendations for springtails in plantain. However there are a number of registered insecticides for use against clover flea in pasture or clover crops, these are: chlorpyrifos, diazinon, diflubenzuron, dimethoate, fenitrothion and maldison. These all have different withholding periods, but this should not be a problem where young seedlings are being sprayed.
- There are two types of insecticide, those that kill the springtails directly and those that are insect growth retardants, such as diflubenzuron. The growth retardants stop the nymph stages from maturing. Longer term control of springtails is possible by using a mix of insecticides which include an insect growth retardant.

Months when springtails are likely to be a problem following autumn sowing

Month	J	F	M	A	M	J	J	A	S	O	N	D
Newly sown												
Established plants												

Control options

Active ingredient	Trade name	Label recommendation for pasture	Withholding period	Notes
Chlorpyrifos	Chlorpyrifos 100 EC, Lorsban 50 EC, Lorsban 750 WG, SusCon Green	Yes	Yes	Stays active on soil for a short period.
Diazinon	Dew 500, Diazinon 800, Diazinon 800 EC, Diazinon EC, Diazonyl 60EC, Digrub, Diazol	Yes	No	
Diffubenzuron	Diffuse 25WP, Dimilin 25W, Porinex, Sniper, Dimilin 2L	Yes	Yes	Can be mixed with most knockdown insecticides for extended control as this is a growth retardant.
Dimethoate	Dimezyl 40EC, Perfekthion S, Rogor E	Yes	Yes	Toxic to bees
Fenitrothion	Fenitrothion, Caterkil	Yes	Yes	Toxic to bees
Maldison	Fyfanon, Malathion 50EC	No	Yes	

Springtail damage

Damage mostly towards centre of leaf, not on leaf margin.



Close up of plantain leaf showing holes made by springtail feeding. Severe attacks on seedlings are capable of killing the plant and large areas can be wiped out.

