

Factsheet

26 May 2016

Updates at [Department of Agriculture and Food](#)

HAY - AN IDEAL PLACE FOR STABLE FLY

Don Telfer -Senior Development Officer

Hay is an important part of food supply for horses, cattle and sheep through many parts of the year when grass quantity or quality is restricted. This includes summer, autumn and winter. However for property owners in the shires near Perth, it may also bring another hazard.

It is common practice for rolls of hay to be placed in a convenient corner of the paddock so cattle can have continuous access to it, and feed from the roll as they desire. However they also drop dung and urine around the rolls as they feed, and this is trampled into the soil along with waste hay.

Rotting hay that sits on sandy soils with adequate moisture present an ideal site for stable fly breeding especially when the soil is moist through recent rainfall events. Female flies will lay several hundred eggs per square meter in these ideal situations and typically several thousand flies could be produced from residues left after a hay bale has been eaten and trampled into the ground.

A serious infestation of stable flies on a horse or cow can occur with as few as 20 stable flies/animal. Thus the potential impact on livestock from breeding stable flies from one roll of hay may be large. Animals will be restless, agitated and interrupted while trying to feed. . In prolonged attacks by this fly, they can lose weight gain and may have difficulty raising a foal or calf.



Figure 1 Maggots can be found in in the wet layers near the soil

Stable flies will mainly be active before the cold nights slow their movement, so in many inland areas June, July and August will be quiet months, even with adequate rainfall to keep rotting hay moist. Closer to the coast around Perth, and in more northern areas, however this quiet period is likely to be much shorter or even non-existent.

Supporting your success

How to Check for Stable Fly Eggs and Larvae

Stable fly eggs are mostly off-white about 1mm in length, and often scattered in little groups of 10-20 eggs. They may be difficult to see, so the avid amateur entomologist will look for the larger larvae or maggots mixed in amongst the rotting vegetation and soil mix.

The best method to look for the larvae or maggots is to select a part of the pile of hay that is not too thick, that is on the outer portion of the pile. Carefully peel away the layers of hay and dirt until just before getting to the soil itself. This is where the larvae are likely to be found. Scrape away at the surface and watch for maggots about 2-3mm long and may be off white to light brown. When exposed to light, their natural reaction is to cease movement for a short time, so look for the shape rather than movement.



Figure 2 In Hay waste, dig down to the moist layers near the soil and look for small off-white maggots

Once one maggot is found, it is likely that more will be in the vicinity
Contact

Controlling Stable Flies

There are several methods that may be used to stable fly development from hay residues. None of these methods is perfect by itself and several methods of control should be used where practicable.

- a) Rolls of hay should be rolled out thinly in the paddock rather than left in one area in rolls. There will be less wastage, and less trampling and less build-up of organic matter in one spot to allow for stable fly breeding. If using rolls, make sure they are not put in the same position each time, as organic matter build-up may mean stable flies will breed.
- b) Hay should not be allowed to keep in contact with the soil. This is difficult as even hay placed in an overhead rack will be pulled down and trampled on by cattle. Likewise hay placed in hay rings will be spread by cattle to where they stand feeding. Spoiled hay should regularly be removed and disposed of by fire, into plastic bags or under a plastic sheet that has been sealed at the edges for at least three weeks. Hay may also be fed out on a concrete pad if this is available as it will reduce the mixing of straw and soil.

- c) Use of insecticides. Hay can be sprayed with a recommended barrier insecticide; however care should be taken in allowing animals access to these insecticides for several reasons. These include withholding periods for exposure of animals prior to being sold, insecticides not registered for use in these situations, and if hay is sprayed to form a barrier, cattle may break the barrier by walking on it allowing flies to escape through the insecticide layer.

Insecticides registered for use against stable flies in WA

Active Ingredient	Product Name	Rate	Comments
Cyromazine 20g/kg	Hokoex TM Alodex Fly Larvicide <i>Neporex 2 GR</i>	<ul style="list-style-type: none"> •Dry - Disperse 250gm granules covers 10sq m •Spray - Dissolve 250gm into 1-4L water and spray 10 sq m •Water Can - Dissolve 250gm in 10L water and pour over 10 sq M 	Granules may be dispersed in water.
Spinosad 5.0 g/kg	Elector PSP TM	250 mL/150 L water applied at 1L/12 sqm	
Alpha- Cypermethrin 100g/L		50mL/ha 15-20mL/100L	1 day withholding period
Chlorpyrifos 500g/L		900mL/ha Water drenching the residues	5 days withholding period
Trichlorfon 500g/L	Dipterex 500 Lepidex 500	240mL/100L water applied at 5L/10m ²	2 days withholding period

Important disclaimer

The Chief Executive Officer of the Department of Agriculture and Food and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © Western Australian Agriculture Authority, 2016