

Wool Innovation

Sheep CRC Extension Activities & FlyBoss

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Why Flystrike Extension?

- Wool producers know how to prevent strike

 but situation & conditions changing
- Breeding needs to start now
 but won't have immediate effects
- Management changes
 - can make a difference
- Integrated approach
 - requires current & complete information

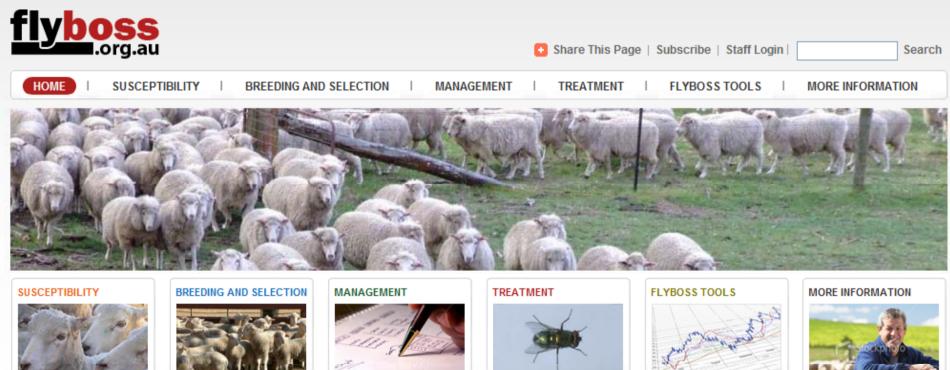
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What Flystrike Extension?

- FlyBoss Information
 - Single source of information about flystrike management
- FlyBoss Tools
 - Decision support for:
 - management changes
 - new situations
- Flystrike management workshops
 - PowerPoints



FlyBoss Information



Factors which make sheep susceptible to flystrike

MORE >>



Long term breeding plans to reduce risk of flystrike

MORE >>



Annual management steps to reduce risk of flystrike

MORE >>



MORE>>

Methods available to help treat flystrike



Online risk assessment and planning tools

MORE >>



Contacts and newsletters to help provide assistance



FlyBoss team

- The flystrike experts
 - Arthur Le Feuvre (NSW)
 - Garry Levot (NSW)
 - Peter James (QLD)
 - Brian Horton (Tas)
 - Di Evans (WA)
 - Norman Anderson (McKinnon, Vic)
 - Brown Besier (WA)



FlyBoss information

- Most already available
 - Scattered in:
 - state Farmnotes
 - Reports
 - books, etc
- Collated, checked
 - Gaps identified
 - New information obtained if necessary
 - Updated for current conditions
 - Re-written where necessary



- Collected into web format
 - Overview
 - Detailed explanations
 - Videos
 - Downloads There are a ran

There are a range of spray-on products that can be used to protect sheep during periods of high flystrike risk.

The table below indicates the advantages and disadvantages of using spray-on products.

Technique	Advantages	Disadvantages
Spray-on products	 can be used for long wool flystrike prevention ease of application – can be applied with a power assisted applicator, which helps ensure consistency and reduces operator fatigue products ready for direct application so no additional water required disposal of empty containers only 	 cost applicator must be matched to the product



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Spray-on flystrike prevention

Spray-on products are easier, more convenient alternatives to hand jetting. These products are usually applied undiluted along the backline of the sheep but in some situations, additional bands are sprayed around the breech area. The principal advantage of the spray-on products is their ease of application as no additional water is required. This is a particular advantage in the drier and more isolated areas where large volumes of water may have to be carted long distances for wet applications. These products may be taken to the sheep.

Many of these products can be applied using power assisted (compressed air or LPG gas cylinder) applicators. This assists with consistent delivery of the selected dose, ensures rapid and reliable refilling of the gun and reduces operator fatigue. For smaller flocks the simple manual squeeze type applicators available offer a



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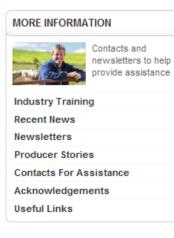


Collected into web format

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- Downloads



More Information

To find out further information on any of the categories below, please click on the appropriate heading:

Industry Training

Provides information on Flystrike Management workshops being held nationally.

Recent News

Read the latest press releases.

Newsletters

Download Newsletters provided by DAFWA and CSIRO and keep any eye out for the FlyBoss Newsletters and Bulletins which will provide latest updates and industry training information.

Producer Stories

Read case studies from several producers and information provided from the Sheep CRC Information Nucleus sites.

Contacts for Assistance

If you are looking for more information or need assistance with any aspect of flystrike management, please contact the representative in your state.

Useful Links

Follow the links provided.

FlyBoss information sections

- Susceptibility
 - Types of strike, flies, monitoring
- Breeding and Selection
 - Scoring, ASBVs, breeding to reduce susceptibility
- Management
 - Annual, shearing, crutching, treatment, dags, NWD
- Treatment
 - Chemicals, methods, Struck sheep, OH&S, resistance



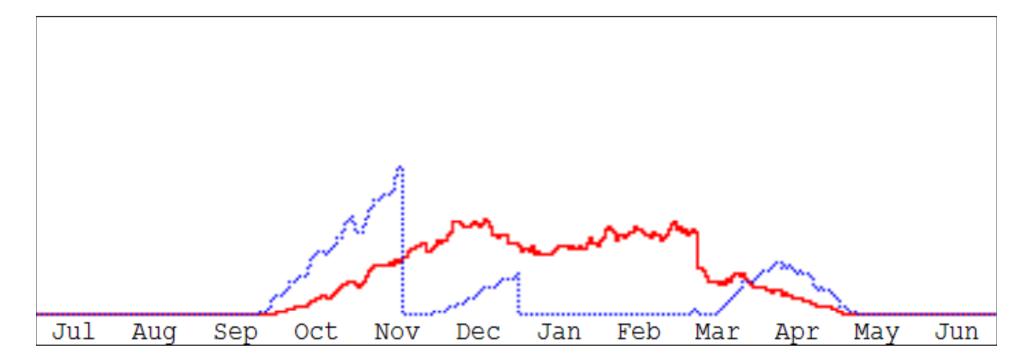


SUSCEPTIBILITY

Factors which make sheep susceptible to

Breech Strike	
Body Strike	
Blowfly Biology	
Blowfly Identification	
Monitoring Flies and Seasonal Conditions	
Geography	
Other Types of Strike	

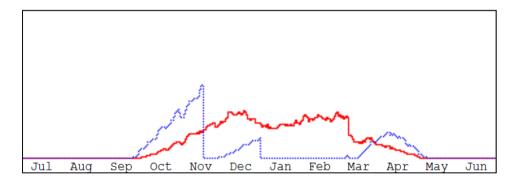
FlyBoss Tools





FlyBoss Tool Development

- Flystrike model based on weather
- Estimate strike risk throughout year
- Adjust for management effects
 - Shearing
 - Crutching
 - Chemical treatment





- Compare alternative management systems
 - Breech modification
 - Mulesed, clips
 - Shearing
 - Date
 - Crutching
 - Date

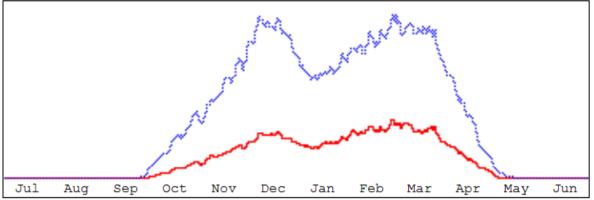
- Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
- Number of crutchings
- Chemical treatment
 - Timing

Australian Wool

Chemical



- Compare alternative management systems
 - Breech modification
 - Mulesed vs unmulesed
 - Shearing
 - Date
 - Crutching
 - Date
 - Number of crutchings
 - Chemical treatment
 - Timing
 - Chemical



non-mulesed	
mulesed	



Jul

Aug

Sep

Oct

Nov

Dec

Jan

- Compare alternative management systems
 - Breech modification
 - Mulesed, clips, etc
 - Shearing
 - Date
 - Crutching
 - Date
 - Number of crutchings
 - Chemical treatment
 - Timing

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Chemical

non-mulesed	
mulesed	

Mar

Apr

May

Jun

Feb

Jul

Aug

Sep

Oct

Nov

Dec

Jan

Feb

- Compare alternative management systems
 - Breech modification
 - Mulesed, clips, etc
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Australian Wool

Chemical

non-mulesed	
mulesed	

Mar

May

Apr

Jun

Jul

- Compare alternative management systems
 - Breech modification
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Australian Wool

Chemical

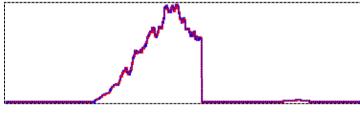


non-mulesed



FlyBoss Tools - Optimisation

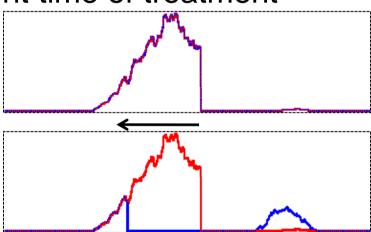
- Optimise chemical treatment time
 - Compare
 - different treatments
 - different time of treatment





FlyBoss Tools - Optimisation

- Optimise chemical treatment time
 - Compare
 - different treatments
 - different time of treatment





FlyBoss Tools - Products

• Products lists

- Current chemical information

– From LiceBoss

Product	Chemical	Group	Pest	WHI	WHP	ESI	Pack	Cost(\$)	Cents/Sheep
Blowfly and Lice jetting fluid	lvermectin	Mectin	LiceFly	42	7	7	5	390	47
Clout Blowfly Liquid	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Cy-Guard SC	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Cyrazin Liquid	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Cyro-Fly 500	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Cyromazine 500 SC	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Cyromazine Liquid	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Extinosad	Spinosad	Spinosyn	LiceFly	0	0	0	5	880	53
Fleececare (Lice)	Diflubenzuron	IGR	Lice	180	0	0	10	770	29
KFM Liquid	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Lucifly Liquid	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Paramax (Concentrate)	lvermectin	Mectin	LiceFly	42	7	7	5	410	49
Proguard Liquid	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Strike (Lice)	Diflubenzuron	IGR	Lice	180	0	0	10	770	29
Strikeback SC	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Venus Liquid	Cyromazine	Cyromazine	Fly	60	7	14	7	405	35
Vetrazin Liquid	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Virbazine Liquid	Cyromazine	Cyromazine	Fly	60	7	21	7	405	35
Zinjet Blowfly and Lice Jettin	lvermectin	Mectin	LiceFly	42	7	7	5	390	47



FlyBoss Tools – Wool Res

- Wool residues
 - Wool residue calculations
 - From LiceBoss

Active Ingredient Temephos OP

Expected Range 0.29 - 2.4 mg/kg wool

Expected Average 0.97 mg/kg wool

Target Eco-wool from 2010 2.0 mg/kg wool

Probability of exceeding Target 6%



FlyBoss Workshops





Flystrike Workshop Team

- Lu Hogan
- Allan Casey
- Alex Russell
- Brian Horton
- Mandy Curnow
- Deb Maxwell
- John Larsen
- Nicole Sallur
- Anthony Hamilton
- David Counsell
- Keith Bolto
- Garry Armstrong



Queensland Government

Department of Primary Industries





Flystrike Workshop Development

- Based on workshop pilots in NSW
- Set of:
 - PowerPoints
 - Other Tools
- Modified as required for other regions
- Tested in other states





Workshop Content

- Integrated approach to flystrike
- Manage change away from mulesing
- Skills to assess flystrike risk
- Using a flystrike management plan
- Importance of National Wool Declaration





Key messages



Monitoring

• Trapping is a monitoring tool, not an effective control



- About two weeks between finding blowflies and strikes
- Flies like wet or humid areas, and sheltered from the wind.
- In hot climates flies stay near trees to keep cool, in cool climates they stay warm in the sun away from trees.



Flock Susceptibility

- The key to managing flystrike
- reduce the susceptibility of your sheep for
 - Breech strike
 - (reduce breech wrinkle and dags)
 - Body strike
 - (reduce fleece rot)
- Evaluate susceptibility of your sheep
 - easy, and
 - low cost

Australian Wool



Flystrike Calendar

- Review current practices
- Create a Flystrike Management Calendar
- Ensure all staff:
 - know the plan
 - have right skills
- Implement & monitor
- Update and improve





Your Calendar

Customised Flystrike risk graph from FlyBoss

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Shearing					х							
Crutching			Х						Х			
Monitoring			Х	Х		Χ			X	X		
			trap	trap		sheep			sheep	sheep		
Risk - Breech								M.M.M.M				
- Body				M.M.M.M				М.М.М.М	М.М.М.М			
Breech												
modification												
Dag												
management												
Chemical							Х.——		→>			
application							Cyrom -		→			
Breeding and		Χ	X		X.			Χ				
Selection		Lamb	Mark & W	6 V	S ewes &	cull		Join –Sc1 s	ires			

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Shearing and Crutching

- Flystrike risk is determined by wool length
- Fine-tune fly risk by:
 - Adjusting shearing date
 - Crutch more strategically
- Many new issues with shearing/crutching non-mulesed sheep







Breech modification



- Dock tails to correct length
- If mulesing:
 - use an accredited operator
 - consider using pain relief
- Clips achieve about half the effect of mulesing



Dags and scouring

 Dags are more of a flystrike risk than wrinkles



- Most scouring caused by:
 - high worm burdens
 - or 'hypersensitivity' to low worm burdens
- Plan ahead to reduce scouring and worms
 - Worm Egg Count (WEC) is the way to know
 - Young animals are most at risk, then lambing ewes
 - Plan your worm drench strategy



Chemical treatment

- Use chemicals strategically to prevent flystrike
- Struck sheep will need to be treated to:
 - control maggots
 - prevent re-strike
- Manage against the development of resistance
- Think about:



- the insecticide 'class' (not products)
- treatments used for lice control.



Breeding and Selection

- Breeding gives a permanent improvement in

 resistance to breech strike and body strike
- Increase resistance to breech and body strike while maintaining or improving performance
- Small changes in average flock wrinkle score
 = big reduction in high risk sheep





Eco-system Management

- Take advantage of your own knowledge
 - Know your property
 - Move susceptible sheep at times of high risk
 - Away from high risk areas
 - To where they are most visible for easy checking
 - Plan lambing schedule with flystrike risk factors in mind
 - Check sheep more often at periods of high risk
 - Have a management plan for struck sheep



Integrate all suitable strategies

- 1. Shearing and crutching
- 2. Breech modification
- 3. Dag management
- 4. Chemical application
- 5. Breeding and selection
- 6. Ecosystem management



Your Calendar – make a plan that suits your location, business and sheep

Customised Flystrike risk graph from FlyBoss

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
Shearing					х							
Crutching			Х						Х			
Monitoring			Х	Х		Χ			X	X		
			trap	trap		sheep			sheep	sheep		
Risk - Breech								M.M.M.M				
- Body				M.M.M.M				м.м.м.	M.M.M.M			
Breech												
modification												
Dag												
management												
Chemical							Х.—.		→>			
application							Cyrom -		→			
Breeding and		Χ	X		X.			Χ				
Selection		Lamb	Mark & W	6 V	S ewes &	cull		Join –Sc1 s	ires			

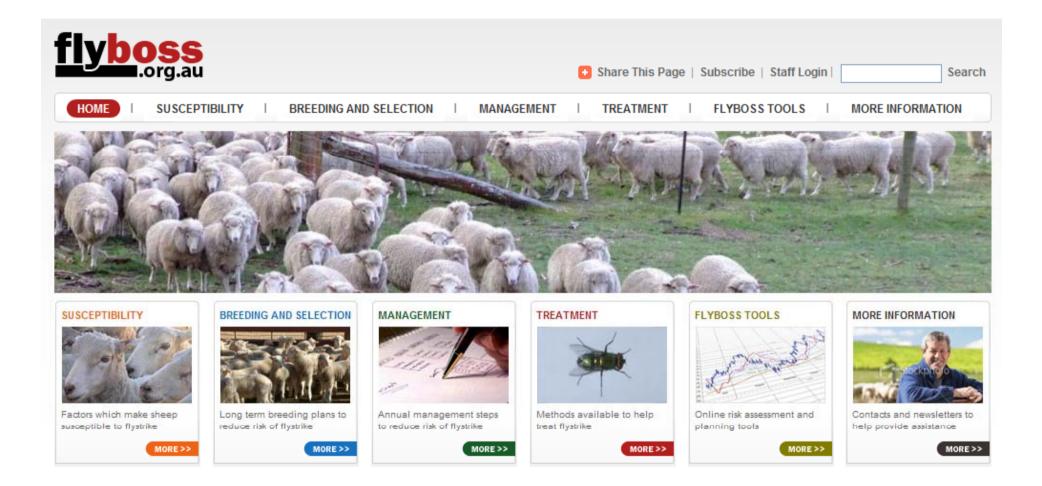
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Flystrike Management Workshops

Available since February 2010

- 13 workshops held so far WA, Tas, Qld, SA, Vic
- 387 producers have attended
- 30 workshops planned for 2010/11
- 11 currently listed on FlyBoss site
- Use the Industry Training tab (FlyBoss More information for upcoming workshops)
- Delivered by Sheep CRC and state departments







Australian Wool Innovation Limited