

FOR INFORMATION/ DISCUSSION

SWFSPP Steering Committee Annual Meeting 2020

Agenda Item 1.2

[last updated: 21 October 2020]

Prepared by I Langstaff and E Sears

SWFSPP Project Status Report

Responsible person: Ian Langstaff, Program Coordinator
Funding: Special funded
Timeframe for the report July 2019 – June 2020

Table 1 Project budget and expenditure summary 2019-2020

Budget	Expenditure to June 30, 2020	Balance
\$156,324	\$164,071	\$7,748 (5% over budget)
Comment on budget and expenditure: - The 2019-20 period is the first year of a three-year program business plan 2019-22. - Budget and actual expenditure by activity 2019-20 are shown in - Table 3.		

Table 2 Report against key indicators of performance (Business Plan 7.1)

Indicator	Work completed to date	Target completion date	Revised/ actual date	Status	Trend
Fly trapping data reported to NAHIS.	92% of the 2019-20 trapping plan was completed.	Quarterly (NAHIS reporting schedule)			—
Myiasis monitoring data reported to NAHIS.	1,167% of the 2019-20 myiasis monitoring plan was completed.	Quarterly (NAHIS reporting schedule)			—
Myiasis collection kits distributed to target audience and extension work undertaken.	Approximately 590 maggot collections kits distributed to states/territories in 2019-20 (NT 50, WA 380, AHA extension officers 160). No outstanding requirements. See coordinator reports for a description of extension work and passive surveillance.	Ongoing			—
SWF web pages maintained.	SWFSPP web pages maintained throughout 2019-20 and currently	Ongoing			—

Indicator	Work completed to date	Target completion date	Revised/ actual date	Status	Trend
	being reviewed by AHA. High resolution images hosted in an image library on the AHA web site.				
Communication awareness materials maintained (currency of content; in-stock at AHA), and available and in-use by target audience.	Poster design completed and presented in 2019 – requires correction to NT number and printing at A4. Brochure completed and distributed in 2019.	Ongoing			–
Entomology training workshop delivered.	Workshop planning now deferred due to travel restrictions however issues to still be addressed include lead facilitator, access to specimens and confirming attendees. Prior presentations stored by AHA for future reference.	2021	TBC		–
Entomology reference materials reviewed and acquired/republished as required.	Development of Identification Manual Version 4 completed. Includes a revised maggot identification key and other minor amendments.	Ongoing			↑
Steering Committee updated on international SWF situation including, distribution, outbreaks, research and development, other matters of potential importance for Australia.	To be discussed in annual meeting. Need to update SC member roles and responsibilities.	Presented to annual Steering Committee meeting.			–
Steering Committee updated on domestic SWF situation including R&D and other matters of potential importance for Australia.	To be discussed in annual meeting. Need to update SC member roles and responsibilities.	Presented to annual Steering Committee meeting.			–

Legend

Current status of the budget for the project/activity			Trend in the progress against the key deliverables/deliverables of the project/activity since last report		
	White	Not started	–	Stable	There has been no change to the trend in the progress of the project/activity since the last reporting period
	Green	On track / in progress	↓	Declining	The trend in the progress of the project/activity has worsened since the last reporting period
	Amber	Delayed / on hold [comment]	↑	Improving	The trend in the progress of the project/activity has improved since the last reporting period
	Red	Stopped / postponed [comment]			
	Blue	Completed			

Table 3 Budget and actual expenditure by activity 2019-20¹

Expenditure Item	Detail	Actual 2019-20	Budget 2019-20	Actual 2018-19	Actual 2017-18
Program management	Salaries, administration, and consultants	55,194	51,776	51,061	50,440
Meeting expenses	Travel costs and catering	9,255	9,302	8,382	10,771
State member service delivery	Surveillance – fly trapping (collaborator costs for trap placement, service and laboratory identification)	81,746 ²	77,647	25,933	60,095
Commonwealth member service delivery	Surveillance – myiasis monitoring (Commonwealth) ³	278	In-kind	629	In-kind
Equipment purchase and distribution	Fly trapping materials – pest strips, Bezzilure, traps	15,694	14,494	21,756	8,735
Communications expenses	Printing and distribution costs for SWF materials including entomology poster and diagnostic manual	1,905	3,105	146	3,404
	Total	\$164,072	\$156,324	\$107,907	\$133,445
	Surplus/(Deficit)	(\$7,748)		\$60,197	\$45,943

Appendix A: Action Items 2019 Steering Committee Meeting

Appendix B: Monitoring Plans and Performance

Appendix C: Product Selection Report

¹ All figures are exclusive of GST.

² Includes \$19,305 for 2018-19 paid in 2019-20.

³ NAQS conducts regular surveys of feral and domestic animals for myiasis, independent of the SWFSPP. NAQS estimates the cost of SWF trapping and myiasis monitoring at \$65,000. The NT and WA governments conduct cattle monitoring for myiasis, and contribute the resources required, in-kind to the SWFSPP.

Appendix A

Table 4 Action Items 2019 Steering Committee Meeting

#	Item Description	Who	Due	Status	Comments
1	Check and if necessary correct SWF exclusion records reported to NAHIS for 2018-19.	Janine Barrett	30-Nov-19	Completed	Additional cases added.
2	Correct data NAQS discrepancies in NAHIS, recognised in Tables 5, 6 and 7 of status report.	Cass Wittwer	30-Nov-19	Incomplete	Awaiting response.
3	Check and correct expenditure table, revise status report with corrections from members and re-provide status report to committee.	E Sears	30-Nov-19	Completed	Revised status report not sent.
4	Recheck accuracy of NT 2018-19 data submission and if necessary, resubmit the data	Peter Saville	30-Nov-19	Completed	No change to NAHIS data.
5	Create new site in NAHIS for Port Headland (new trapping over winter instead of Perth).	Emily Sears	30-Nov-19	Completed	Port Headland site added (PHE) 26.11.2019.
6	PS to advise ES of NT contact number for SWF brochure.	Peter Saville	31-Oct-19	Incomplete	Please confirm number and include in poster. Will require email to P Saville. Poster on hold so no action required at the moment.
7	Develop PNG insectocutor project proposal further for consideration by committee and AHA.	Cass Wittwer	30-Nov-19	Unknown	Update to committee required.
8	Review Acknowledgment section of diagnostic manual to enhance acknowledgement of Phil Spradbery and ensure diagrams and keys contributed by Phil Spradbery are credited as such.	Emily Sears	30-Nov-19	Completed	Revision undertaken in consultation with Bill Crowe, Peter Green (via Bill Crowe) and Glenn Bellis. See revised manual.
9	BC to consult with Peter Green on the inclusion of a tribute to Phil Spradbery in the revised manual with a view to Peter to draft it.	Bill Crowe	30-Nov-19	Completed	Revision undertaken in consultation with Bill Crowe, Peter Green and Glenn Bellis. Advice also taken from Biotext. See revised manual.
10	Investigate if and how high-resolution stacked photography SWF images can be made available online.	Emily Sears	30-Nov-19	Completed	Images uploaded to the AHA Resource Hub images section. Not in an online viewer but can be downloaded and resolution still present. Cross reference provided in identification manual, table of figures.

11	All coordinators to provide entomology workshop attendee nominations to ES early December.	All coordinators	30-Nov-19	On hold	Only received from Qld. Need to reassess planning and lead presenter for workshop. Look at when travel restrictions more reliable.
12	PS and BC to investigate availability of prior presentations from Brian Thistleton and Peter Green respectively.	Peter Saville and Bill Crowe	30-Nov-19	Completed	Prior presentation information received and stored on AHA internal SharePoint site for future reference. Recognition of source important going forward.
13	ES to contact Peter Green regarding him facilitating the Darwin course in March next year.	Emily Sears	30-Nov-19	Completed	P Green does not wish to be involved as the facilitator will need to look at alternative contacts and options. May be able to provide materials. Important to acknowledge source.
14	Review active myiasis data and report to committee on its significance to the myiasis work instruction.	Graham Mackereth	30-Nov-19	In progress	See 2020 meeting paper item 3.3
15	Progress minor use application process and report to ES by end November.	Peter Dagg	30-Nov-19	Ongoing	Ian L registered with APVMA and waiting response to pre application assistance application.

Appendix A: Monitoring Plans and Performance

Table 5 Schedule of SWF trapping (plans) and number of trapping events conducted July 2019 – June 2020

Fly Trap Locations	Site code	Agency Responsible	No. Traps	Planned trapping frequency (per year)	Total number planned trapping events (per year)	Number of trapping events conducted				
						Total	July-September 2019	October-December 2019	January-March 2020	April-June 2020
Broome	BRO	DPIRD	3	12	36	18	7	8	3	0
Port Headland	PHE	DPIRD	3	-	-	18	3	12	0	3
Fremantle	FRE	DPIRD	3	12	36	9	0	3	6	0
Geraldton	GER	DPIRD	3	12	36	31	9	7	6	9
Wyndham	WND	DPIRD	3	9	36	30	9	7	4	10
Darwin wharf	EAW	NT DPIF	1	12	12	9	0	3	3	3
Darwin other	Various	NT DPIF	4	8	32	33	6	9	9	9
Townsville	Various	Qld DAF	6	6	36	34	12	6	11	5
NPA	Various	NAQS	9	4	36	58	13	0	30	15
Totals			35		260	240	59	55	72	54

Table 6 Schedule of targeted myiasis monitoring plans (Business Plan Table 17, Appendix D) and inspections conducted by period (NAHIS)

Monitoring location and site	Agency	Survey frequency (per year)	Minimum no. animals inspected per survey	Total animal inspections planned	Jul-Sep 2019		Oct-Dec 2019		Jan-Mar 2020		Apr-Jun 2020		Total conducted
					# myiasis surveys	Total # animals	# myiasis surveys	Total no. animals	# myiasis surveys	Total # animals	# myiasis surveys	Total # animals	
Northern Territory													
Garrithya, East Arnhem Land, NAMP sentinel herd T080	NAQS	6	10-15 cattle	60-90	3	29	3	31	3	30	3	27	117
Gunbalanya, Arnhem Land, NAMP sentinel herd T121 ⁴	NAQS	6	10-15 cattle	60-90	2	40	3	41	3	39	3	51	171
Darwin Periphery Berrimah Export Yards BEY, Adelaide River Bridge Creek Export Yards BCEY, Coomalie Holding Depot COOM	NT DPIR	12	50 cattle	600	3	944	5	769	4	699	14	7233	9645
NAMP Sentinel Herds Douglas Daly Research Station 107, Beatrice Hill 108.	NT DPIR	12	10-15 cattle	120-180	12	288	15	342	16	372	17	516	1518
Queensland													
Torres Strait Islands: Thursday Island (THUR)	NAQS	2	10-50 domestic animals	20-100	0	0	0	0	0	0	0	0	0
Northern Peninsula Area Seisia (Q335)	NAQS	12	10-15 cattle	120-180	3	67	1	18	2	18	3	26	129
York Downs, Weipa (Q145)	NAQS	12	10-15 cattle	120-180	3	39	3	52	2	33	3	48	172

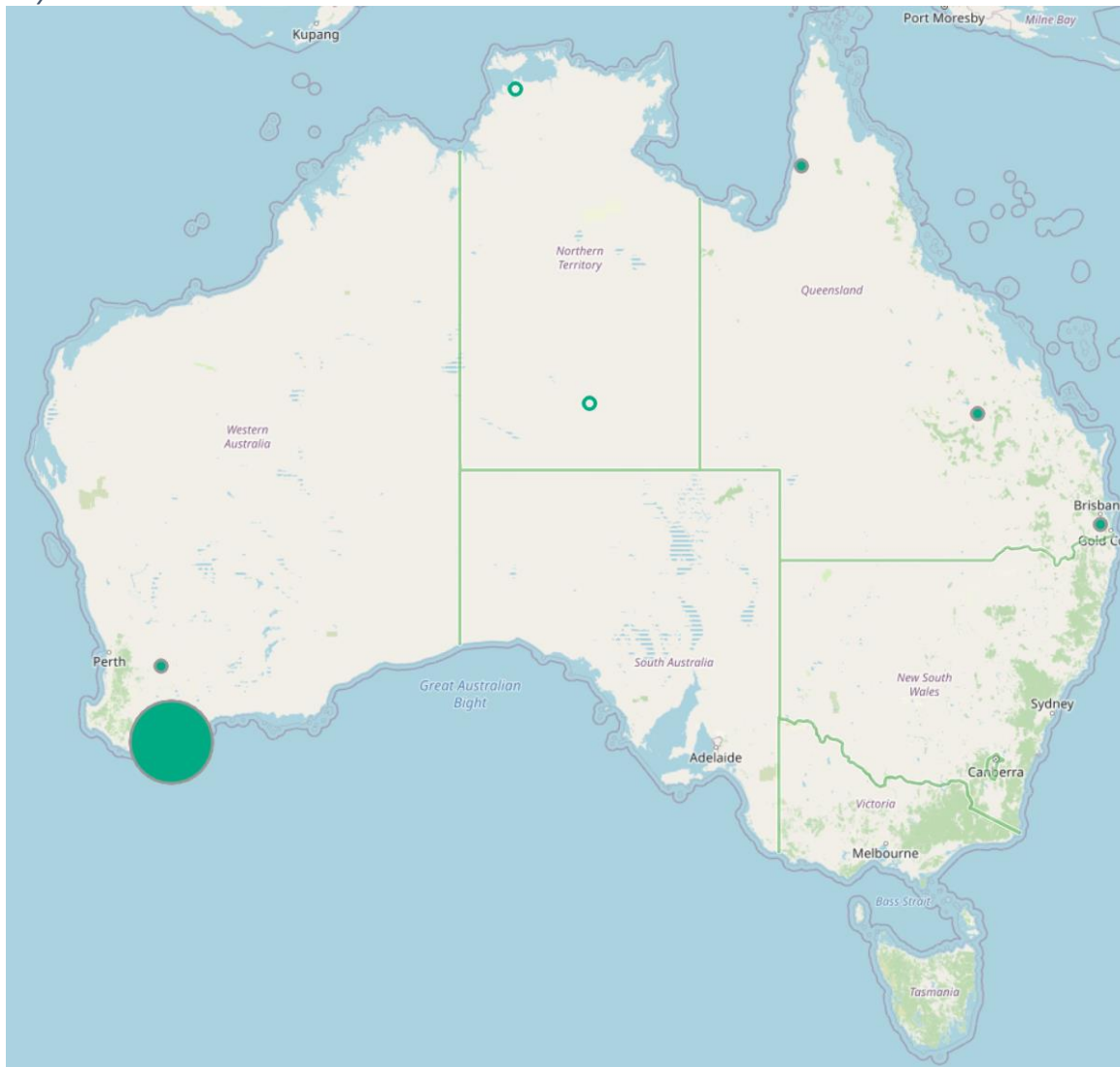
⁴ Additional to schedule of activity

Merapah, Coen (Q295)	NAQS	12	10-15 cattle	120-180	1	9	0	0	0	0	0	0	9
Wolverton Station, Coen (Q380)	NAQS	12	10-15 cattle	120-180	0	0	0	0	0	0	0	0	0
Western Australia													
Broome Common Feedlot/Export Depot (W131)	DPIRD	10 (excl. Jan, Feb)	50 head (if av. wound rate 8%)	500	28	6,655	11	2,041	0	0	30	6,856	15,552
Kalumburu (W012)	NAQS	2	20-30 cattle	40-60	0	0	0	0	0	0	0	0	0
Totals		68		1,880-2,340									27,313

Table 7 Animal disease investigations (general surveillance) for Old World and New World Screw-Worm Fly as listed in the National Notifiable Animal Disease Investigations data project of NAHIS, July 2019 – June 2020

Species	Event date	Location	Finding	Investigation	Outcome
1. Dog	02/03/2020	QLD: Logan	<i>Lucilia</i> sp.	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
2. Sheep	05/11/2019	W0080: Albany	PAR	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
3. Sheep	05/11/2019	W0080: Albany	PHY	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
4. Cattle	13/08/2019	QCX: Central Highlands	SWF & <i>Hypoderma</i> spp. excluded. Most likely <i>Lucilia</i> or <i>Calliphora</i> sp.	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
5. Sheep	17/10/2019	W2100: Corrigin	PHY	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
6. Sheep	18/05/2020	D: Darwin and Gulf	Exclusion	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
7. Dog	22/06/2020	A: Alice Springs	Exclusion	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative
8. Dog	27/05/2020	QKW: Kowanyama	insect identification	<i>Cochliomyia hominivorax</i> and <i>Chrysomya bezziana</i>	Negative

Figure 1 Location of investigations for Old World and New World Screw-Worm Fly as listed in the National Notifiable Animal Disease Investigations data project of NAHIS, July 2019 – June 2020



Generated from NAHIS: 21/10/2020

Date From: 01/07/2019 To: 30/06/2020

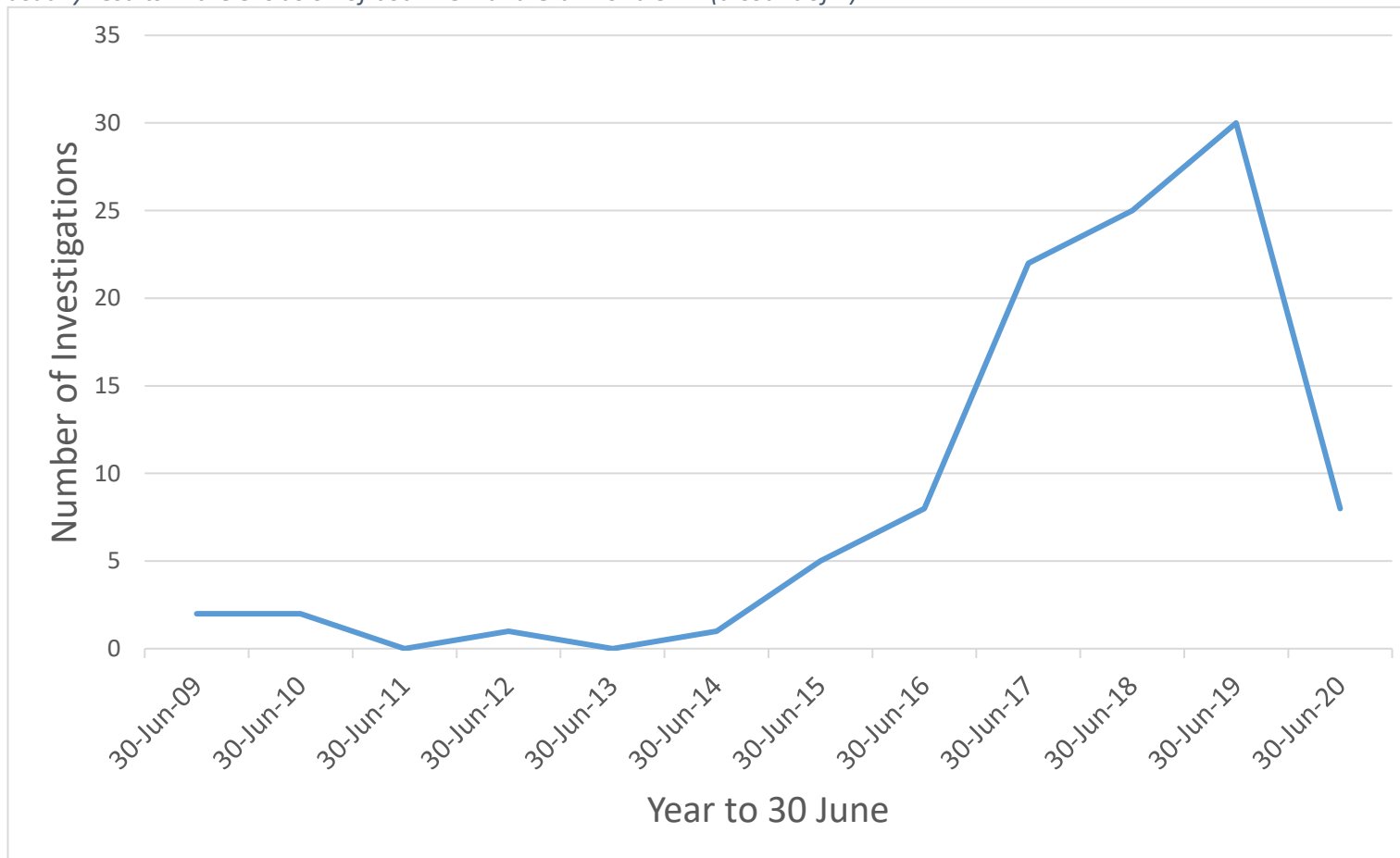
The size of each point is proportional to the number of reports

To view the data related to each point, click on that point

NAHIS

- Negative investigations with actual location coordinates
- Negative investigations with LGA-level location

Figure 2 Number of screw-worm fly (New World and/or Old World) investigations reported in NAHIS for the period 1 January 2009 - 30 June 2020. Note: one investigation usually results in the exclusion of both New and Old-World SWF (a count of 2).



Appendix C: Product Selection Report

Product selection for treatment and prophylaxis in the event of an incursion of screw worm fly in Australia

August 2020

Executive summary

Old World screw worm fly (OWS) *Chrysomya bezziana* and New World screw worm fly (NWS) *Cochliomyia hominivorax*, are exotic to Australia, and suspicion of infestation in animals is notifiable both at a national level⁵ and under state and territory animal health legislation.⁶

The overall objective of a response to an incursion of screw worm fly (either OWS or NWS) in Australian animals, which has been agreed by industries and governments through the Australian Veterinary Emergency Plan (AUSVETPLAN), is eradication.⁷ This will require a number of strategies – with a key element being treatment of individual animals and groups of animals to prevent or cure infestations of screw worm fly.

There are thirteen products currently registered in Australia for use in cattle that have a label claim for screw worm fly therapeutic efficacy and five products that have a label claim for prophylactic efficacy. Because these products are readily available in Australia, they could be used immediately (in cattle) to respond to an incursion of screw worm fly in Australia (animals).

There are also a large number of products currently registered in Australia for use in both cattle (beef and/or dairy) and sheep (meat and/or wool) that have known efficacy against screw worm fly (but do not currently have a label claim for this use in Australia).

The following products have been selected (according to the established criteria listed below) to seek minor use permits for SWF, for use in the event of a SWF incursion:

Therapeutic uses:

- topical applications containing ivermectin ([Table 1](#))
 - Cattlemax LV Pour-on Endectocide for Cattle (87615)
 - Toromax LV Pour-on Endectocide for Cattle (82338)
 - Coopers Blowfly and Lice Jetting Fluid (61069)
 - Abbey Fly and Lice Jetting Fluid (87786)
- topical applications containing spinosad ([Table 1](#))
 - Elanco AH0492 Extinosad Lice, Fly and Maggot Eliminator
- aerosol applications containing spinosad ([Table 2](#))
 - Elanco AH0498 Extinosad Aerosol for Wounds (56734)
- topical wound treatments containing chlorfenvinphos ([Table 3](#))
 - David Grays aerosol sheep dressing (42259)
 - WSD aerosol sheep dressing (39575)

Prophylactic uses:

- controlled-release capsules containing ivermectin ([Table 4](#))
 - Ivomec Maximiser Controlled Release Capsule for Weaner Sheep (48689)
 - Ivomec Maximiser Controlled Release Capsule for Adult Sheep (48688)
- spray-on applications containing dicyclanil ([Table 5](#))
 - Strikeforce-S Spray-on Sheep Blowfly Treatment (81483)
 - Klikzin Spray-on Sheep Blowfly Treatment (64628)

⁵ Australian Government Department of Agriculture, Water and the Environment. National List of Notifiable Animal Diseases. Available from: www.agriculture.gov.au/pests-diseases-weeds/animal/notifiable.

⁶ Refer to individual state and territory legislation

⁷ www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/

- CLiK Extra Spray-On Sheep Blowfly Treatment 81863).

The costs to the SWFSPP budget for these permits alone are \$3,500.00 (\$350.00 per permit). Additional costs for AHA staff time will also be required.

Background

AHA delivers the Screw Worm Fly Surveillance and Preparedness Program (SWFSPP), which conducts surveillance and coordinates emergency response preparation for a possible incursion of screw worm fly.⁸

Old World screw worm fly (OWS) *Chrysomya bezziana* and New World screw worm fly (NWS) *Cochliomyia hominivorax*, are exotic to Australia, and suspicion of infestation in animals is notifiable both at a national level⁹ and under state and territory animal health legislation.¹⁰ Both OWS and NWS have the potential for spread in tropical and subtropical areas and, in summer, could extend into the major livestock production areas of southern Australia. This would have a significant impact on livestock production and public health.

Both OWS and NWS are diseases listed with the World Organisation for Animal Health (OIE).¹¹ The overall objective of a response to an incursion of screw worm fly in Australia (animals) is to eradicate it as quickly as possible to minimise economic and ecological impacts.¹²

Following detection of screw worm fly in Australia, the initial steps would be quarantine and movement controls on susceptible animals to prevent the movement of infested animals, and enhanced surveillance to define the source and geographical distribution of adult screw worm flies.

These strategies would be supported by large-scale prophylaxis in declared areas, and treatment of individual animals and groups of animals to prevent or cure infestations of screw worm fly (myiasis cases) using appropriate chemical treatments.

Other strategies would include decontamination and disinsectisation of larval-contaminated areas, equipment and other materials, zoning to define infested and disease-free areas, and a public awareness campaign to encourage rapid reporting.

Another important tool used internationally for the control and eradication of screw worm fly incursions is sterile insect techniques (SIT), which can achieve eradication if maintained for several generations. Because there are currently no SIT facilities targeted at SWF in Australia¹³, it would take some time (years) to initiate and develop a level of production necessary to attempt either the creation of a buffer zone to limit spread, or total eradication. In the meantime, it would be vital to ensure active control and preventive programs are in place to minimise the impact and spread of screw worm fly.

⁸ www.animalhealthaustralia.com.au/what-we-do/disease-surveillance/screw-worm-fly/

⁹ Australian Government Department of Agriculture. National List of Notifiable Animal Diseases. Available from: www.agriculture.gov.au/pests-diseases-weeds/animal/notifiable.

¹⁰ Refer to individual state and territory legislation

¹¹ www.oie.int/en/animal-health-in-the-world/information-on-aquatic-and-terrestrial-animal-diseases/

¹² www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/

¹³ Recognising that SIT for fruit fly management and response methods has been developed in Port Augusta, South Australia, which could possibly be explored for SWF research

Discussion

At previous annual meetings of the SWFSPP Steering Committee (2017-2019), it was decided that the possibility of 'shelf permits' be considered for the use of therapeutic chemical products to respond to an incursion of screw worm fly in Australia. The SWFSPP Steering Committee also recommended the development of a plan to operationalise therapeutic and prophylactic use of these products.

AHA commissioned a report into what pre-emptive work could be conducted to enable the rapid supply/use of products with several different active constituents, to enable a rapid and effective response to an incursion of screw worm fly in Australia. The following options were identified for determining the most appropriate chemical products for both therapeutic and prophylactic use:

1. *Minor use process (preferred)*
2. *Emergency permit process (back-up option)*
3. *Registration of new products (not recommended)*

At the 2019 SWFSPP Steering Committee Annual Meeting, the Committee agreed that AHA should pursue extensions to product registrations under the APVMA minor use permit processes for relevant products to be used in the event of an incursion of screw worm fly in Australian animals.

In addition, the Committee requested:

- criteria be established to clarify product selection
- the holder of the minor use permit holder be confirmed in consultation with the APVMA.

A pre-application assistance meeting was held with APVMA staff in November 2019 to discuss:

- the correct application process to implement the minor use permits and determine individual permit/registration requirements
- the suitability/currency of the selected products
- the most appropriate permit holder (e.g. AHA or Australian Chief Veterinary Officer)
- the length of validity of the permits
- the overall costs associated with the process

This report includes the outcomes of those discussions.

Criteria for selection of products to be used in the event of an incursion of screw worm fly in Australian animal:

- contain an active constituent that is already registered for use in both cattle (beef and dairy) and sheep (meat and wool)
- minimal withholding period (WHP) and export slaughter interval (ESI) relative to other products available for selection in the class
- the active constituent has known efficacy for screw worm fly.

Costs for implementing extensions to product registrations for the ten products identified under the APVMA minor use permit processes in the event of an incursion of SWF in Australian animals is \$3,500.00 (\$350.00 per permit). Additional costs for AHA staff time will also be required.

TABLE 1: Products selected for topical applications containing ivermectin or spinosad (therapeutic uses)

Product name	APVMA approval number	Registrant	Active constituent	Class ¹⁴	Formulation	Registered in Australia		Registered claim for SWF	WHP		ESI (days)
						Sheep	Cattle				
Cattlemax LV Pour-on Endectocide for Cattle	87615	Landmark Operations Limited	Ivermectin 10 mg/mL	ML	Topical	-	Yes	No	Meat Milk	21 days 0	21
Starmec Pour-on for Beef and Dairy Cattle	70317	The Hunter River Company Pty Limited	Ivermectin 5g/L	ML	Topical	-	Yes	No	Meat Milk	21 days 0	21
Paramax Pour On	50558	Coopers Animal Health	Ivermectin 5g/L	ML	Topical		Yes	No	Meat Milk	21 days 0	21
Coopers Blowfly and Lice Jetting Fluid	61069	Intervet Australia Pty Limited	Ivermectin 16 g/L	ML	Topical	Yes	-	No	Meat Milk Wool	7 days Do not use ¹⁵ 6 weeks ¹⁶	7 ¹⁷
Abbey Fly and Lice Jetting Fluid	87786	Abbey Laboratories Pty Ltd	Ivermectin 16 g/L	ML	Topical	Yes	-	No	Meat Milk Wool	7 days Do not use ¹¹ 6 weeks ¹²	7 ¹³
Elanco Extinosad Aerosol for Wounds	56875	Elanco Australasia Pty Ltd	Spinosad 2.8g/L	UK	Topical	Yes	-	No	Meat Milk Wool	0 Do not use ¹⁸ 0	0 ¹⁹

¹⁴ ML = macrocyclic lactone, UK = unknown,

¹⁵ DO NOT USE in lactating sheep or within 28 days of lambing where milk or milk products may be used for human consumption

¹⁶ DO NOT USE less than 6 weeks before shearing or fibre collection

¹⁷ Use of this product may result in wool residues that may not comply with European Union environmental quality standards

¹⁸ DO NOT USE in lactating sheep or within 28 days of lambing where milk or milk products may be used for human consumption

¹⁹ Long wool jetting, wound and flystrike dressing applications: Zero (0) days. Short wool dipping application: An ESI has not been established. Use of this product may result in wool residues that may not comply with European Union environmental quality standards

TABLE 2: Products selected for topical applications containing organophosphorus and synthetic pyrethroid (therapeutic uses)

Product name	APVMA approval number	Registrant	Active constituent	Class ²⁰	Formulation	Registered in Australia		Registered claim for SWF	WHP		ESI (days)
						Sheep	Cattle				
Coopers Tixaflly Cattle Dip and Spray	45981	Coopers Animal Health	25 g/L deltamethrin, 125 g/L Ethion	Organophosphorus and synthetic pyrethroid dip and spray	Topical	-	Yes	No	-	-	-

TABLE 3: Products selected for topical applications containing synthetic pyrethroid (therapeutic uses)

Product name	APVMA approval number	Registrant	Active constituent	Class ²¹	Formulation	Registered in Australia		Registered claim for SWF	WHP		ESI (days)
						Sheep	Cattle				
David Grays aerosol sheep dressing	42259	David Gray & Co Pty Limited	Chlorfenvinphos 0.64 g/kg	OP	Topical	Yes	-	No	Meat Milk Wool	14 days Do not use 1 month	7 ²²
WSD aerosol sheep dressing	38575	WSD Agribusiness Pty Ltd	Chlorfenvinphos 0.64 g/kg	OP	Topical	Yes	-	No	Meat Milk Wool	14 days Do not use 1 month	14

²⁰ UK = unknown²¹ OP = organophosphate²² Use of this product may result in wool residues that may not comply with European Union environmental quality standards

TABLE 4: Products selected for controlled-release capsules containing ivermectin (prophylactic uses)

Product name	APVMA approval number	Registrant	Active constituent	Class ²³	Formulation	Registered in Australia		Registered claim for SWF	WHP		ESI (days)
						Sheep	Cattle				
Ivomec Maximiser Controlled Release Capsule for Weaner Sheep 20 to 40 KG	48689	Boehringer Ingelheim Animal Health Australia Pty. Ltd.	Ivermectin 80mg/capsule	ML	Oral (controlled release)	Yes	-	No	Meat Milk Wool	126 days ²⁴ Do not use ²⁵ Not set	126
Ivomec Maximiser Controlled Release Capsule for Adult Sheep 40 to 80 KG	48688	Boehringer Ingelheim Animal Health Australia Pty. Ltd.	Ivermectin 160mg/capsule	ML	Oral (controlled release)	Yes	-	No	Meat Milk Wool	126 days ¹⁸ Do not use ¹⁹ Not set	126
Cattlemax LV Pour-on Endectocide for Cattle	87615	Dalgety Animal Health	Ivermectin 10mg/mL	ML	Topical		Yes	No	Meat	21 days	21

²³ ML = macrocyclic lactone

²⁴ 18 weeks

²⁵ DO NOT USE in sheep producing milk for human consumption

TABLE 5: Products selected for spray-on applications containing dicyclanil (prophylactic uses)

Product name	APVMA approval number	Registrant	Active constituent	Class ²⁶	Formulation	Registered in Australia		Registered claim for SWF	WHP		ESI (days)
						Sheep	Cattle				
Strikeforce-S Spray-On Sheep Blowfly Treatment	81483	Jurox Pty Limited	Dicyclanil 50 g/L	IGR	Topical	Yes	-	No	Meat Milk Wool	14 days Do not use 3 months	35
Clikzin Spray-On Sheep Blowfly Treatment	64628	Elanco Australasia Pty Ltd	Dicyclanil 50 g/L	IGR	Topical	Yes	-	No	Meat Milk Wool	7 days Do not use 1 month	21 ²⁷
CLiK Extra Spray-On Sheep Blowfly Treatment	81863	Elanco Australasia Pty Ltd	Dicyclanil 65 g/L	IGR	Topical	Yes	-	No	Meat Milk Wool	14 days Do not use 3 months	63

²⁶ IGR = insect growth regulator

²⁷ Use of this product may result in wool residues that may not comply with European Union environmental quality standards