



## Report to Grain Growers - Skeleton Weed Program 2016/17

### Foreword

On behalf of my fellow committee members, I am pleased to present this report outlining the delivery and outcomes of the 2016/17 Skeleton Weed Program to the contributors of the Grains, Seeds and Hay Industry Funding Scheme.

At 30 June 2017, less than 2500 hectares were known to be infested with skeleton weed. The significant efforts of the program staff, Local Action Groups and landholders are to be commended, with skeleton weed surveillance occurring on more than 410 000 hectares. The 12% reduction in the infested area within the Narembeen shire during the year is particularly encouraging, indicating the real benefit of the program at slowing the spread of skeleton weed.

The progress being made with the research activities is excellent. In particular, it is pleasing to see that the modelling work funded by the scheme, which predicts the spread of skeleton weed seed, is now being successfully applied to better target surveillance activities. Coupled with the research into the use of unmanned aerial vehicles for surveillance, the industry-funded research is expected to return value for the investment of grower funds. Providing value for the investment of grower funds remains a priority of the Industry Funding Scheme Management Committee.

The scheme continues to attract contributions from more than 99% of WA grain, seed and hay producers. These contributions have enabled a comprehensive program that continues to control the spread of skeleton weed and deliver positive outcomes for the grain, seed and hay industries of Western Australia.

### Ron Creagh

**Chairman: Grains, Seeds and Hay Industry Funding Scheme Management Committee**



# Program Milestones

## Review

All program milestones have been met and the program has been delivered under budget.

As stated in the 2015/16 Annual Report – the program budget has been set at its current level of (approximately) \$3.5m for the foreseeable future and program activities need to be framed within this parameter.

The Grains, Seeds and Hay Industry Management Committee (GSH IMC) believes the current program is delivering the best value for the funding provided and is achieving the Project Outcomes of eradication (where possible), management (on infested sites), and limiting the spread of skeleton weed across the wheatbelt.

There has been no significant increase in the “Infested Area” of skeleton weed in 2016/17.



## Infested Properties

Contractors again searched the majority (60%) of the available “Code 1” area eligible for search assistance. A total of 56 new infested properties were reported by landholders or found by the Department (DPIRD) and/or Local Action Group (LAG) staff undertaking targeted surveillance.

DPIRD and LAG staff audited all eligible properties, to remove them from the infested list, and skeleton weed was eradicated on 36 properties in 2016/17. This compares with 58 properties removed in 2015/16.

This is a net gain of 20 properties and increases the total number of infested properties in the State to 1,006.

## Winter Treatments

A total of 2,448ha was recorded as infested during the 2016/17 Search Season and marked for “winter treatment” in 2017. Approximately 1,000ha of this area are a ‘whole paddock treatment’ with Lontrel™.

A slight increase in the cost of winter treatment is expected in the 2017/18 budget, with the GSHIMC voting at its October 2016 meeting to include the Yilgarn and Narembreen shires in the Winter Spraying Program. This means that all shires across the wheatbelt are now eligible for all “assistance” provided by the Skeleton Weed Program.

## Recent Improvements

Continuous improvement remains an important part of the Skeleton Weed Program’s ongoing development and effectiveness.

Significant refinements were made to the delivery of the Program in 2016/17. These included:

- “Spread modelling” to best predict the spread of skeleton weed and improve the targeting of Surveillance activities.
- Changes made to the “Search Assistance” program bringing the Yilgarn and Narembreen shires back in line with rest of the State

Significantly, for the first time in many years the Narembreen shire showed a decrease in the infested area (12%). This is an encouraging indicator for the effectiveness of the program.

**Table 1:** Skeleton Weed Program key indicators (2000 to 2017)

Year	Number of properties known to be infested at start of season	Area searched (ha)	Infested area (ha)	Infested paddocks area (ha)	Number of new finds	Number of properties released	Number of properties infested at end of season	Program cost (\$)	Grower contribution (cents/tonne)
00/01	571	132 000	1 610	81 500	76	27	620	3 229 000	15
01/02	597	128 000	3 375	108 060	142	5	734	3 029 000	35
02/03	734	499 000	1 800	128 780	92	20	806	2 057 000	35
03/04	806	485 000	2 600	136 100	53	34	825	4 357 000	35
04/05	790*	487 000	3 168	151 080	53	68	775	3 745 000	35
05/06	775	390 000	1 701	126 990	63	53	785	3 347 000	35
06/07	785	350 000	2 170	137 310	49	46	788	3 250 000	30
07/08	770*	426 900	1 635	151 670	63	61	772	3 397 000	30
08/09	752*	424 800	3 019	200 895	108	25	825	3 950 000	30
09/10	796*	504 600	1 702	170 016	89	25	860	3 666 000	30
10/11	857*	475 000	836	146 760	53	60	850	2 910 000	27
11/12	850	402 050	1 710	179 350	102	58	897	3 180 000	27
12/13	896	453 250	2 518	190 285	95	48	926	3 282 500	27/15
13/14	926	409 030	1 440	169 245	58	44	940	3 052 000	27/13.5
14/15	940	445 670	2 090	225 591*	84	50	974	3 145 586	27/13.5
15/16	974	424 920	1 944	188 419*	70	58	986	3 283 234	27/13.5
16/17	986	411 000	2 448	176 000	56	26	1006	3 384 000	27/13.5

\* Note: Number of infested properties at start of season appears reduced because of property amalgamations.

\*\* Excludes Metropolitan area infestations.

# How are the funds spent

The total cost of the 2016/17 Program was \$3.384m (as at 30 June 2017) which was \$216,000 under the budgeted amount of \$3.600m.

(Approximately) \$2,075,000 of expenditure during the year was allocated to landholder support in the form of search assistance, funding for six Local Action Groups and winter herbicide treatments (Table 2).

A further \$1 309 000 was directed to program support activities such as research, education, regulation and surveillance.

The cost of undertaking surveillance and control within the Perth metropolitan area is more than offset by revenues raised through charging land managers (on a fee for service basis) for work undertaken.

**Table 2:** Program Expenditure 2016/17

Operational expenditure	
<b>Program support activities</b>	
Program coordination, audit and compliance	\$550 000
Education and awareness	\$32 000
Targeted surveillance searching (including metro area)	\$200 000
Response to new finds	\$146 000
Field research	\$35 000
Contribution to DPIRD in-kind support	\$346 000
<b>Program support total</b>	<b>\$1 309 000</b>
<b>Direct landholder support</b>	
Winter spraying contracts	\$20 000
Local group support	\$650 000
Provision for landholder searching subsidies	\$1 185 000
Infested property support activities	\$110 000
Winter spraying - chemical supply	\$110 000
<b>Landholder support total</b>	<b>\$2 075 000</b>
<b>Program expenditure 2016/17</b>	<b>\$3 384 000</b>

# Trends

The Skeleton Weed Program continues to provide significant benefits to owners/managers of both infested and non-infested properties. Without a co-ordinated program aimed at controlling spread, skeleton weed would now be much more abundant and widely established throughout the wheatbelt.

In the 2016/17 Program, little change was recorded in the parameters used to measure program progress, with only very slight variations on 2015/16 in the number of infested properties, the area searched and the area infested.

Although the overall number of infested properties continues to climb, it is at very slow rate. As well, the number of properties removed from the infested list is at a consistent level. These are particularly pleasing trends and a good indicator of the effectiveness of the program.

## Area Searched

The total area searched in 2016/17 was 411,000ha, which is slightly less than the previous season (Figure 1).

The area of surveillance searching by landholders, DPIRD and LAG's was 80,800ha.

Contractors searched a total of 101,831ha of eligible 'Code 1' paddocks and new finds, and were paid \$833,856 under the search assistance scheme. Landholders searched 60,682ha of eligible 'Code 1' paddocks and new finds, and received \$240,703 in search assistance.



## Infested Properties

There are now 1,006 properties infested with skeleton weed in the Western Australian agricultural area, a net increase of 20 properties since the start of the 2016/17 Program (Table 1). The total of 56 new infested properties was balanced to some extent by 36 properties being removed from the infested list after audit (Figure 2).

Although the number of new properties continues to grow yearly the rate of increase is slow and this is very encouraging. This trend has been consistent for several years.

## Infested Area

There are 2,448ha infested with skeleton weed, a moderate increase in 2016/17, from 1,994ha in 2015/16 (Figure 3). This can be related to seasonal conditions, but is also a reflection of the effectiveness of the Skeleton Weed Program, as the trend remains fairly level.

A map of the agricultural area showing the distribution of all infested sites can be found at the end of this report (Figure 4).

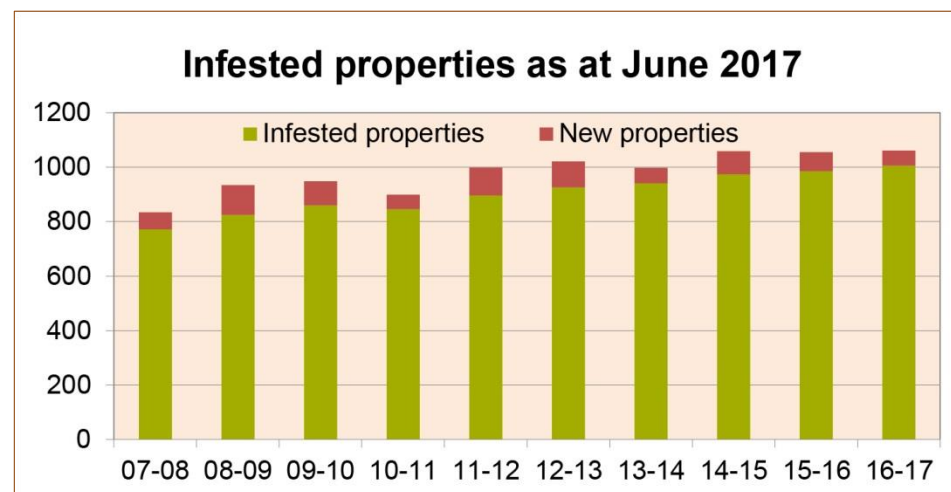


Figure 2: Number of Infested properties (agricultural regions)

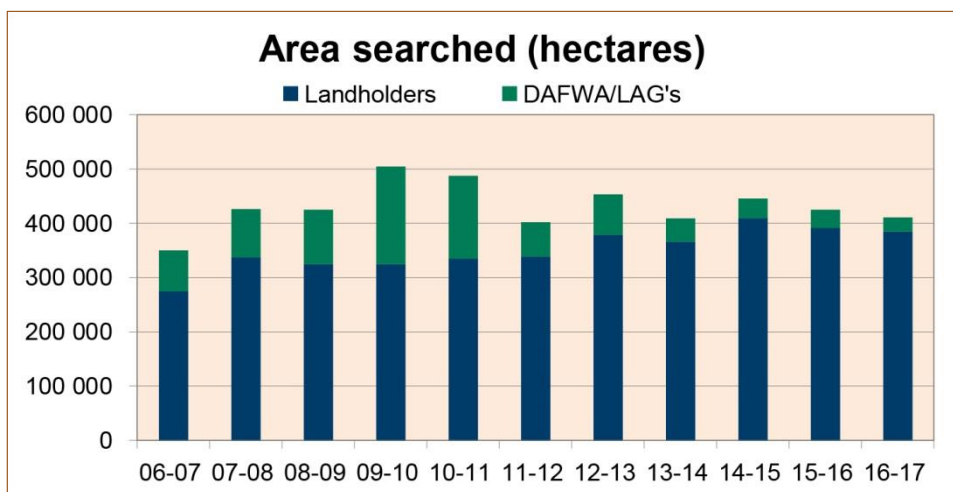


Figure 1: Area Searched (agricultural regions)

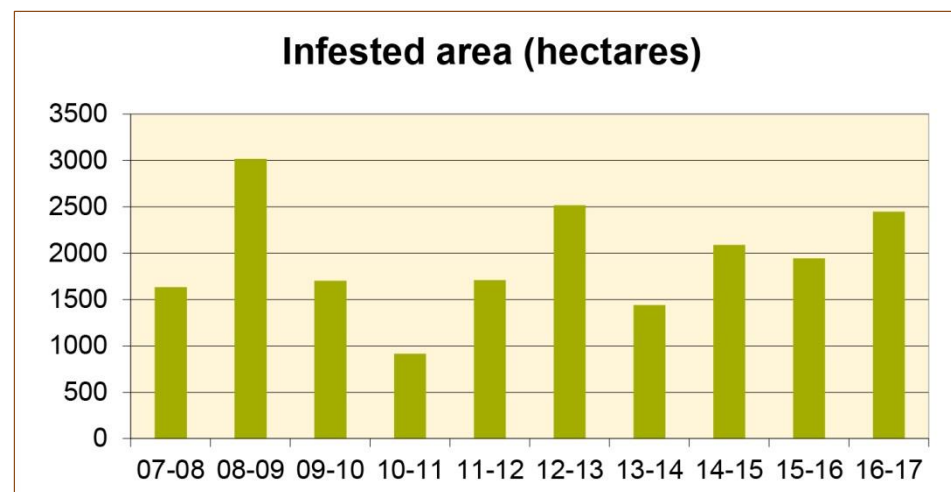


Figure 3: Area Infested with skeleton weed (agricultural regions)



# Industry Funding Schemes

# Perth Metropolitan Area

The Skeleton Weed Program continues to operate under the Biosecurity and Agricultural Management Industry Funding Scheme (Grains) Regulations 2010. Responsibility for approving the funding and operations of the program reside with the Grains, Seeds and Hay Industry Management Committee (Grains IMC) initially appointed by the Minister in June 2010.

The Grains IMC met in April 2016 and approved the programs for the control of skeleton weed and the eradication of three-horned bedstraw on behalf of the WA Grains Industry. The Committee recommended a contribution rate on grains and seed remain the same (as the previous year) at 30 cents per tonne, with 27 cents allocated to the Skeleton Weed Program, and 3 cents to three-horned bedstraw control. The contribution rate of 15 cents per tonne for hay producers with 13.5 cents allocation to the program was also left unchanged.

All contributions to the scheme are collected by purchasers of grain and hay and are paid into a Grains, Seeds and Hay Industry funding Scheme, Declared Pest Control and Compensation Account, which is managed by DPIRD in consultation with the Grains IMC.



Surveillance in the Perth area was conducted in early December 2016 and February 2017. Winter treatment of the 2015/16 infested sites was undertaken in July 2016 and treatment of 2016/17 sites was undertaken in July 2017.

All managers of infested sites must conduct searching for (and treatment of) skeleton weed at their cost or contract DPIRD to undertake the work on a fee-for-service basis, on behalf of the GSH IMC. The current fee-for-service arrangement remains the preferred option for most Metropolitan area landholders. The fee-for-service charges of "Metro" sites have now been brought into line with the Broad acre Skeleton weed season (October to October).

Those land managers who chose to undertake the management themselves were required to report on their activities and were subject to audits in December and February.

New sites continue to be reported or found and awareness is improving, particularly with local governments. The Program has strong support from the City of Cockburn and City of Wanneroo in particular.

Although new sites have been listed, many of the current sites have significantly reduced plant numbers, and some sites have been removed from the infested list.

Lake Coogee and the Water Corporation sites at Henderson have improved significantly.

## Compliance

The vast majority of landholders are compliant and embrace the requirements of the program.

During the 2016/17 season a small group of infested and newly infested properties required some level of compliance with all returning to Approved Program requirements. This was accomplished by discussions generally between local Biosecurity Officers and the Senior Compliance Inspector who advised on how to achieve compliance to alleviate any advancement towards prosecution.

# Research

Spread modelling to predict the spread of skeleton weed is now being used effectively to target surveillance searching in areas where the pattern of spread is likely to occur.

Field trials are continuing on the use of Unmanned Aerial Vehicles (UAV's) for the detection of skeleton weed. Significant progress is being made in this program. We now have an effective, suitable platform to undertake the flying and work is continuing on image recognition software. Further field development will be undertaken in December 2017 and the expectation is that the program will be using this in 2018.



# Local Action Groups

Six Local Action Groups (LAG's) were funded by the program during 2016/17, receiving a total of \$650,000. Additional funds were provided to enable LAG's to take on more operational activities, allowing DPIRD staff to focus on compliance and coordination of the program.

The development of LAG's to undertake the program's operation activities in some areas has been very successful. Several LAG's are now working autonomously and undertaking almost all tasks previously completed by DPIRD exclusively.

DPIRD remains the compliance management authority and all compliance requirements are met by DPIRD accordingly.





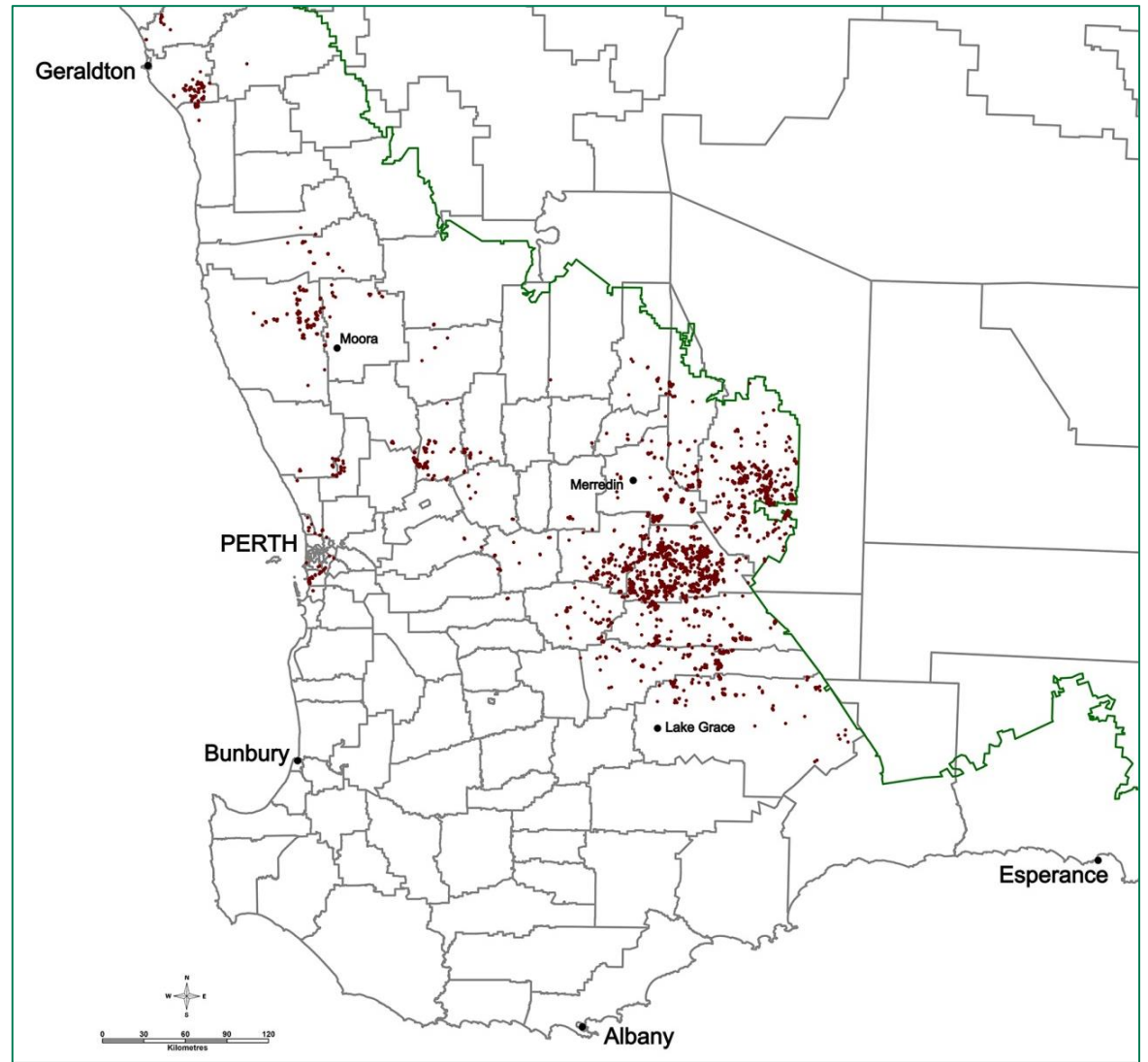


Figure 4: Distribution of all infested sites throughout the agricultural regions in 2016/17 season

### Important disclaimer

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