

Department of Primary Industries and Regional Development Journal of the Department of Agriculture, Western Australia, Series 4

Volume 1 Number 12 *December, 1960* 

Article 11

1-1-1960

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### **Recommended Citation**

Tomlinson, A R. (1960) "The success of the rabbit 'killer' trials," *Journal of the Department of Agriculture, Western Australia, Series 4*: Vol. 1: No. 12, Article 11. Available at: https://researchlibrary.agric.wa.gov.au/journal\_agriculture4/vol1/iss12/11

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Part of the Bridgetown area-note the amount of "cover"

The Success of



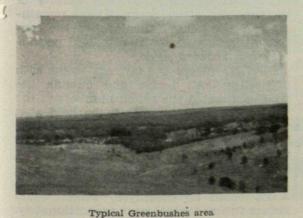
## The Rabbit "Killer" Trials

By A. R. TOMLINSON, Chief Vermin Control Officer

Success well beyond what was anticipated has been achieved in a two year trial of a modified version of the rabbit "killer" method. In the "killer" method, trained officers are employed to kill rabbits instead of to inspect and supervise the activities of farmers and, in fact, these officers do all the actual work of destruction. This system was advocated by the W.A. Royal Commission which reported on Vermin Control in this State in 1944, and it was used successfully in New Zealand. These trials were applied only to poisoning and not to overall destruction measures. The main object was to see if rabbits could be brought under control and kept there by standard poisoning procedures.

The Agriculture Protection Board was prompted to arrange the trials by concern that, while rabbits were still well below the numbers before 1956, they had obviously increased in parts of the agricultural areas, largely due to a decline in the effectiveness of both myxomatosis and control work.

For one trial an area covering a group of 65 farms in the Bridgetown district was selected as including many of the problems





Some of the Nannup country treated

1105

encountered in higher rainfall (30 in. and over) rabbit infested regions. In fact, the area was as tough as could be found with partly cleared properties, steep hills, rocky outcrops, logs, bracken and other thick



Kellerberrin "killer" area. Typical notice in the centre foreground

cover. The other trial area comprised 49 farms in the Kellerberrin district, considered to be fairly representative of the lower rainfall (13 in.) wheat and grazing areas with large cleared properties and a relatively lower rabbit population.

### PROGRAMMES FOLLOWED

Both the areas were carefully surveyed by Vermin Control Officer-operators and maps of the individual properties as well as the whole groups, were prepared with details of clearing, rabbit infestation, warrens, etc. All operations conducted on each property were recorded.

In Bridgetown a spring poisoning drive in 1958 was followed by summer drives in 1959 and 1960. Spot poisonings were carried out by the Vermin Control Officer



Preparing "1080" mixture for mixing with oats

between drives and until 30th June, 1960, wherever he found sufficient rabbits.

In Kellerberrin, an early summer drive at the end of 1958 was followed by spot poisoning until 30th June, 1960, wherever sufficient rabbits were found.

In both places, the Vermin Control Officer-operators made the trails, free fed with oats for three successive nights and poisoned on the fifth night. If it was considered results were not good enough, the process was repeated later. It was necessary to return to some properties up to five times to fit in with stock movement arrangements made by the owners.



Mixing the oats and "1080"

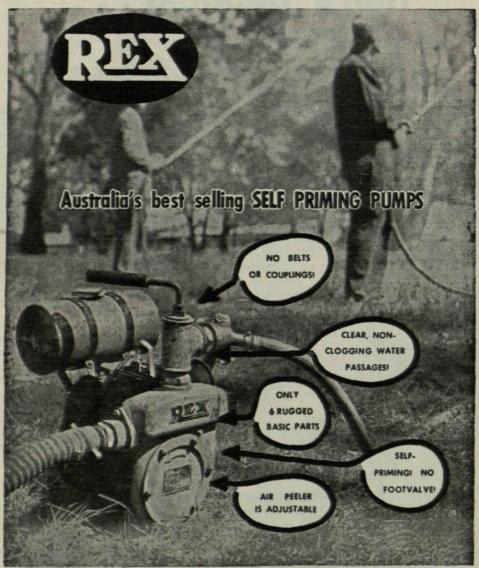
#### RESULTS

At Bridgetown, rabbits were considerably reduced in the 1958-59 work so that another spring drive was not necessary. The 1960 summer drive and spot poisoning then reduced rabbits probably to the minimum level which poisoning could attain and where they could do no real damage to pastures or crops. They were cleared right back to the immediate vicinity of warrens and other cover. Those remaining could be held at this level by the continued application of the "killer" poisoning on a reduced scale.

District Officers and farmers—some with properties both inside and outside the trial—estimated the rabbit numbers at the end of the 1960 summer to be held at a quarter or even less than those on neighbouring properties where exactly the same work was supposed to have been done by the owners.

While many warrens were inaccessible, a lot could be destroyed, which would reduce future control work proportionately.

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Warrens on one rabbit netted property were totally ripped for £330 and the previous poisoning cost of over £300 was reduced to £30.

The cost of the work in the Bridgetown trial was £5,500 in the first year and £3,000 in the second year, representing 2s. 7d. a farm acre or £86 for the average 670 acre property, reduced to 1s. 5d. a farm acre and £46 a property in the second year.



Dropping "1080" poisoned oats into the trail

At Kellerberrin the results were just as good with a big reduction in rabbit numbers but, in relation to the population, proportionately more rabbits were left in warrens. The "killer" poisoning method could undoubtedly hold rabbits well in check but the trial showed very clearly that warren destruction is the really important measure in these areas.

Out of the 49 properties, 45 had warrens needing destruction at an estimated cost of £46 for the average 2,000 acre property. The poisoning costs were just under 6d. a farm acre in the first year or £49 a property, falling to slightly over 3d. a farm acre or £24 a property in the second year.

The trials have highlighted in a spectacular manner that rabbits can be brought down to and kept at a low level by standard methods, particularly poisoning. The difference between results obtained in the trials and those by farmers generally, lies in the consistently high standard of the work of the trained officers and their persistence in destroying rabbits whenever and wherever they were found. A noticeable feature was that two to three times more poisoning than normally done was carried out. In high rainfall areas similar to Bridgetown, rabbits may be kept well under control by poisoning alone although all accessible warrens and cover should be destroyed as rapidly as circumstances permit. In lower rainfall areas similar to Kellerberrin, priority should be given to warren destruction with occasional poisoning when required.

It is evident from experience that no poisoning method except the "killer" system could obtain and maintain such satisfactory reductions and there can be



"1080" poisoned oats in trail

little doubt that this type of poisoning in conjunction with warren and cover destruction, especially, and other methods as well, is the only really effective way of dealing with the rabbit problem.

Some details of the trials are set out in the following tables.

### SOME DETAILS AND COSTS OF TWO YEARS' OPERATIONS

- (1	Including	preparatory	mapping,	inspections,	etc.)	
------	-----------	-------------	----------	--------------	-------	--

the distance of	Low and	Kellerberrin							
Number of farms Total Farm Area • Largest Farm Smallest Farm Average		2,7	65 593 acres 500 acres 50 acres 570 acres		49 100,076 acres 8,000 acres 400 acres 2,042 acres				
en per - an entre	First Year	Second Year	Total	Average Per Year	First Year	Second Year	Total	Average Per Year	
Total Cost Cost per acre	£5,535	£2,971	£8,506	£4,253	£2,407	£1,175	£3,582	£1,791	
Total Farm Area Farm Area used Average Cost per	2s. 6·47d. 3s. 4·2d.	Is. 4·36d. 1s. 9·3d.	3s. 10.8d. 5s. 1.6d.	1s. 11·42d. 2s. 6·8d.	5·73d. 6·58d.	2.94d. 3.12d.	8·67d. 9·70d.	4·33d. 4·85d.	
Farm	£86	£46	£132	£66	£49	£24	£73	£36 10s.	

### DETAILS OF OPERATIONS IN THE BRIDGETOWN "KILLER" TRIALS 1958-1959

	Spot Poiso	Spot Poisoning and Spring Drive			Summer Drive and Spot Poisoning		
Date Poisoning commenced Date Poisoning ceased		15/9/58 12/11/58 4		9/2/59 30/4/59 1 to 4			
· · ·	Properties	Crown Lands and Reserves	Total	Properties	Crown Lands and Reserves	Total	
Number of properties treated	14,400 580 611	9 720 32 52 <sup>1</sup> / <sub>2</sub>	66 15,160 612 663 <del>1</del>	57 14,480 601 626	9 620 29 51	66 15,100 630 677	
applications (lb.)	1 0 1	5.6	6-2	6.0	5.3	5.9	

The infestation on 8 properties was so low that no treatment was considered necessary.

1959-1960

and the second s		1000	1000		and the second second		
		Spot Poisoning			Summer Drive		
Date Poisoning commenced Date Poisoning ceased Number of Units		1/7/59 30/6/60 1		12/2/60 30/4/60 3			
		Properties	Crown Lands and Reserves	Total	Properties	Crown Lands and Reserves	Total
Number of properties treated Oats used (lb.)		14 743	2 58	16 801	58 10,576	12 724	70 11,300
Tatt Washing Theme	of the 4	44 66	4 6	48 72	414 · 441	29 32	443 473
(III		4.2	3.6	4.15	6.4	6.25	6.3

Only spot poisoning required on three properties and none on four others.

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### DETAILS OF OPERATIONS IN THE KELLERBERRIN "KILLER" TRIALS

1399-1393									
	Spot Poise	pot Poisoning and Spring Drive			Summer Spot Poisoning				
Date Poisoning commenced				27/10/58 30/12/58 1-2			1/1/59 31/7/59 1		
		Service of the servic		Properties	Crown Lands and Reserves	Total	Properties	Crown Lands and Reserves	Total
Number of Treatments Oats used (lb.) Miles of Trail Unit Working Hours Average rate of application	in each	  of t		46 8,560 381 520 5-5	3 430 24 29	49 8,990 405 549	31 3,420 117  7.2	4 470 13 	35 3,890 130

Infestation on three properties was not sufficient to require control measures.

1959–1960										
-	E	arly Summer		Summer and Autumn						
Date Poisoning commenced Date poisoning ceased Number of Units used	5/11/59 21/12/59 1			1/3/60 12/5/60 1						
	Properties	Crown Lands and Reserves	Total	Properties	Crown Lands and Reserves	Total				
Number of properties treated	24 1,003 43	2 39 2	26 1,042 45	39 2,215 85	3 180 10	42 2,395 95				
operations (lb. per mile)	5.84	3.87	5.8	6.5	4.5	6.3				

Total times were free feeding 180 hours and poisoning 57 hours. Twenty-two Properties required no poisoning but 660 ampoules of chloropicrin were used to fumigate warrens on them. No work was necessary on 5 properties.

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