



Department of  
Primary Industries and  
Regional Development

## Journal of the Department of Agriculture, Western Australia, Series 4

---

Volume 2  
Number 10 *October, 1961*

Article 6


---

1-1-1961

### Vermin symposium report : wanted : a new approach to rabbit control

A R. Tomlinson

Follow this and additional works at: [https://researchlibrary.agric.wa.gov.au/journal\\_agriculture4](https://researchlibrary.agric.wa.gov.au/journal_agriculture4)

 Part of the [Behavior and Ethology Commons](#), [Other Animal Sciences Commons](#), and the [Toxicology Commons](#)

---

#### Recommended Citation

Tomlinson, A R. (1961) "Vermin symposium report : wanted : a new approach to rabbit control," *Journal of the Department of Agriculture, Western Australia, Series 4*: Vol. 2: No. 10, Article 6.

Available at: [https://researchlibrary.agric.wa.gov.au/journal\\_agriculture4/vol2/iss10/6](https://researchlibrary.agric.wa.gov.au/journal_agriculture4/vol2/iss10/6)

This article is brought to you for free and open access by the Agriculture at Digital Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 4 by an authorized administrator of Digital Library. For more information, please contact [library@dpird.wa.gov.au](mailto:library@dpird.wa.gov.au).

# WANTED: A NEW APPROACH TO RABBIT CONTROL

By A. R. TOMLINSON, Chief Vermin Control Officer

**T**HE main reason why rabbits have not increased as rapidly as their amazing capabilities might have led people to expect has been a series of years not suitable for full breeding. This has been more important than myxomatosis and "1080". This was one of the thoughts taken away by those who attended the rabbit control symposium held in Perth recently.

A study of biological and meteorological information by scientists had revealed this rather sobering fact, together with a further fact that had there been a series of favourable seasons—as has happened often enough in the past—it is probable that Australia's existing control organisations could not have held the rabbits in check.

The symposium was a most interesting experience for those who attended. All had some interest in rabbit control, and there was a unique opportunity of learning the latest scientific advances in biological and technical knowledge of rabbits or their control directly from some of the scientists involved.

The Eastern States C.S.I.R.O. and W.A. Agriculture Protection Board research scientists gave all this technical detail clearly and simply in the papers they presented, and in the innumerable questions they answered or discussions they freely joined. There could be little doubt that much of the information given answered questions which had been unanswered, and exploded myths which have been deluding people for many years.

Another thought taken away by all who listened must have been that the new scientific information destroys the foundations of many of the generally accepted control theories, so much so that immediate

changes in techniques, organisation and policies are necessary.

Even present legislation is based on the earlier ignorance of the way rabbits live. Western Australia is probably well ahead of other States in the new steps it has taken or is taking, but this is still a long way from the complete application of the latest techniques and knowledge of control and the latest information available on the biology of rabbits.

The papers presented at the symposium, were: "Rabbit Biology and Behaviour and their Bearing on Control" by Mr. K. Myers, Principal Research Officer, C.S.I.R.O.

"One Shot Baiting" by Mr. C. D. Gooding, Officer in Charge of Vermin Control Research Section, A.P.B., W.A.

"Rabbit Control—Prospects for the Future" by Mr. B. V. Fennessy, Principal Research Officer, C.S.I.R.O.

"Rabbit Control in W.A." by Mr. C. Marshall, Field Superintendent, A.P.B., W.A.

## Reproduction in Rabbits

The scientists made it very clear that, although the present rabbit position is one of low level populations, this is not due to the help given to control operations by myxomatosis—which is the popular theory. As Mr. Fennessy explained, it is due to the

lack of suitable seasons to allow rabbits to reproduce normally.

Despite the effects of myxomatosis in 1952 and annual outbreaks ever since, close studies show that rabbits in the Eastern States have been increasing steadily over the last three years. Western Australia is three or four years later in the myxomatosis cycle, but there is no doubt the same pattern is being followed here.

The present public complacency, because rabbits are still relatively few, is based solely on a misunderstanding of a situation which could change quickly and radically in one season.

Mr. Myers has found that rabbits can increase ten-fold in a favourable season. When rabbit numbers are high the reproduction rate falls, but when they are low as at present, it is greatly accelerated. However if they become very few their social system is liable to be so disrupted that reproduction is further depressed.

A dry winter or spring is unsuitable for rapid breeding, but on the other hand, over-wet seasons are just as unfavourable.

If they have a satisfactory season the does can have up to seven litters each, at

monthly intervals, with a total of up to 35 young in the season. Their daughters in the early litters can be breeding themselves before the season is finished. Fortunately all the litters do not survive, but even if the survival is low there can still be a lot more rabbits than at the start of the season.

Obviously, unless the percentage of rabbits killed is very high control work is purely a waste of time and money.

### **The Rabbit Society**

Mr. Myers has discovered that a complex social system of home ranges has the effect of confining rabbits in small groups, each with a strict order of seniority, to small areas where they live, breed and feed. The system is rigidly applied during breeding but breaks down with exploratory journeys for food and water in summer.

The existence of this home range social structure means that poison trails on a property will miss many of the rabbits unless they cut through every home range.

Pressure of over population forces sub-adults out of their social groups in late spring, and breeding competition forces out another lot in autumn. These lead to



When rabbit numbers are greatly reduced, the survivors retreat to sheltered places, such as this rough, bracken-infested country near Manjimup. From these "infestation foci" they later spread out to re-infest the neighbourhood

the well known seasonal movements which are often ascribed to invasions from neighbouring properties or Crown Lands, and not to the correct source: too many rabbits left after the completion of destruction work.

### Sources of Infestation

Mr. Myers' work has also revealed that once rabbit numbers are greatly reduced the survivors are found only in specially favoured or sheltered places. From these "infestation foci" they spread out and re-infest the neighbourhood or district. They were actually doing the same when numbers were high but this was not so obvious.

Had it been possible to concentrate a community control effort on these places instead of spreading it evenly over the area generally rabbits may have been eradicated from many of the individual holdings.

The present system of individual land holder responsibility is in fact in direct opposition to the true biological requirement of community concentration on the infestation foci. This would cut out most of the control work on surrounding areas and properties.



Dropping "1080" poisoned oats into a trail

### Objective Needed

Mr. Fennessy considered that one of the main reasons for past failures has been the lack of an objective. People have been content to kill some rabbits without caring how many are left. Usually reliance is placed on the currently popular "answer to the rabbit problem"—such as myxomatosis or "1080"—without thought of its co-ordinated application with other methods.

Many farmers who have regarded rabbit destruction as merely the haphazard placing of a trail, a partial free feeding and poisoning or an unfinished ripping or fumigation of warrens, may have been surprised to learn that control works is a precision operation which if not applied exactly in accordance with definite rules might just as well not be attempted at all.

### "One Shot" Baiting

The Officer in Charge of Western Australia's vermin control research section (Mr. Gooding) gave details of an important advance in poisoning developed by his section. By the application of a mathematical formula he has compressed the normal three free feeds and one poisoning into a single operation.

An involved vacuum impregnation process draws enough "1080" into a single oat grain to kill several rabbits. When grains impregnated by this process are mixed and laid out with scientifically calculated quantities of unpoisoned oats, the free feeding and poisoning operations are, in effect, combined.

Although more work on quantities and proportions is still required, results already being obtained are much better than those under the conventional system of farmers' free feeding followed by poisoning by an Agriculture Protection Board Unit.

The application of this new method by full time trained inspector-operators who will not only inspect properties but do all the actual work will greatly improve poisoning while reducing time, labour and costs.



Part of the Bridgetown area. "Killer" trials were successful here

## Local Plans

West Australian plans for rabbit control in the immediate future, as outlined by Mr. Marshall, include the use of differing approaches on a zonal basis.

The higher rainfall zone will have a priority on extensive poisoning with the aid of other methods. The medium rainfall zone will have poisoning balanced with more warren destruction, while the lighter rainfall zone will have a concentration on warren destruction aided by poisoning and other methods. Inspector-operators will be introduced for poisoning wherever possible.

There can be only one ultimate objective in rabbit control, and that is eradication on properties wherever possible and confinement of rabbits to the infestation foci in other places.

There will never be a better time than now to achieve this objective. Rabbit numbers are low and myxomatosis is still able to assist; the new scientific knowledge of rabbits themselves and the new techniques of destruction give us new weapons.

The use of inspector-operators in a "killer" scheme will also be necessary. The objective will not be attained in any other way.

—from an ABC Rural Radio Talk.

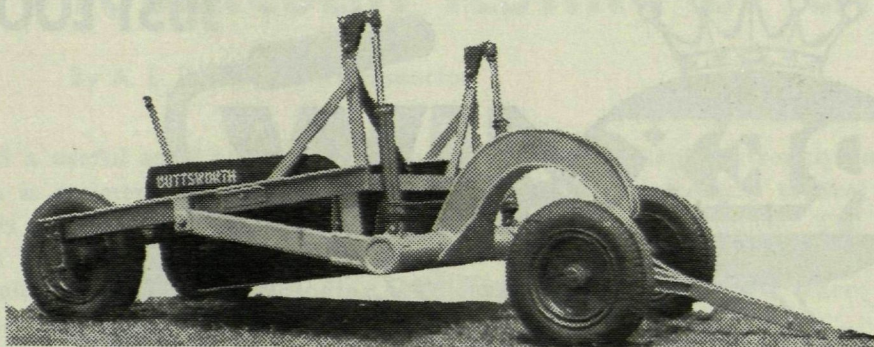
---

## 4,500 Guinea Ram "A Good Investment"



"Was he worth it?" was the question asked by journalists during a critical inspection of this 4,500-guinea ram on Mr. K. Allen's Glen Lee stud, Bruce Rock. Mr. Allen (holding the ram) was convinced that he had made a good investment. The picture was taken during a tour arranged by the Royal Agricultural Society, and sponsored by the Shell Company, to view preparations for the 1961 Royal Show.

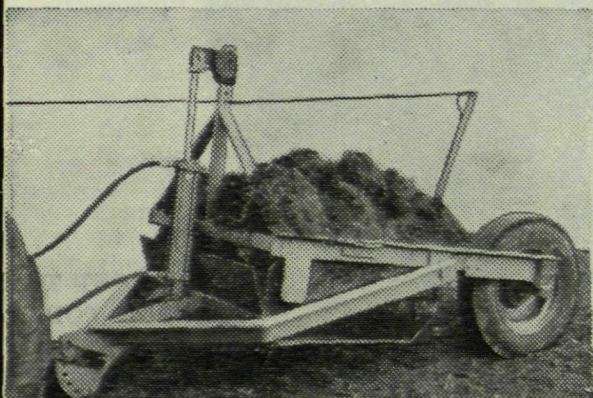
Tackle those big earthmoving jobs with a



# BUTTSWORTH

## MODEL "A" Hydraulic

# SCRAPER



### Buttsworth Earth Scoop

$\frac{1}{2}$  yd. to 2 yd. capacity

The ideal earth scoop for all farm jobs. Available in all sizes from  $\frac{1}{2}$  yd. to 2 yd. capacity in standard models for tractors with 3 point linkage, or hydraulic models.

With a capacity of 4 cubic yards heaped, or 3 cubic yards struck, the Buttsworth Model "A" Hydraulic Scraper is ideally equipped for your biggest earth moving jobs. Hydraulically controlled by the tractor driver, it is simple to operate under all conditions. Weight is 2 tons 14 cwt. Get full particulars now from—

W.A. Distributors:



763 Wellington St., Perth  
Phone 21 9151

# Want a GOOD DEAL in a PUMP?

## JUST LOOK AT THIS

# REX 4LW

**BEST  
PUMP VALUE  
TODAY**  
5,400 G.P.H.  
44 lbs. Weight  
**Only £67**



Here's a solid, self-priming addition to the Rex Pump range—the pumps that out-sell all other makes combined. Rex 4LW offers lightest weight, highest portability, lowest cost of any pump in its class. You've a choice of 2½ h.p. engines by Clinton or Briggs and Stratton . . . you get the simple construction . . . the exclusive adjustable air peeler . . . and all the other features made famous by Rex. All this for only £67. Order promptly for quick delivery!

**POST THIS  
COUPON TODAY!**

Wesfarmers Tutt Bryant Pty. Ltd.  
Railway Avenue, Bassendean, W.A.

Please send me details of REX 4LW Self-priming Centrifugal Pump.

NAME.....

ADDRESS.....

**WESFARMERS TUTT BRYANT PTY. LTD.** RAILWAY AVENUE, BASSENDEAN, W.A.  
TELEPHONE 79 1616

Please mention the "Journal of Agriculture of W.A.," when writing to advertiser