VACOR®, A NEW RODENTICIDE: ITS SUCCESS IN THE FIELD

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ABSTRACT: Since VACOR(R) was first introduced to the market as a fast acting rodenticide in 1975, it has been sold successfully throughout the United States. The VACOR line is sold over-the-counter as a ready-to-use bait for rats and mice. The DLP-787™ rodenticide line was introduced to the market for sale to professional users only. This line includes both bait and mouse tracking products. It has been well accepted by professional users even though DLP-787 is offered only as ready-to-use products. New products of the same type will be available for commercial introduction in 1978. This paper discusses the successful market entry of VACOR and DLP-787, their field use against commensal rodents, and the new products now on the horizon.

INTRODUCTION

The active ingredient RH-787 was first commercialized in the United States in July 1975 with the introduction of VACOR(R) rodenticide. Since then it has been sold through farm stores, veterinary outlets and pest control distributors. Several hundred thousand farmers and thousands of professional people have used the product in the United States. It has been well accepted and sales have increased until today it is the second largest selling brand of rodenticide in this country. Sales are increasing; in fact, professional sales doubled in 1977 over the year earlier.

Basically there are two trademarks for RH-787-containing products: VACOR and DLP-787. The former is sold over-the-counter, and the latter exclusively to professional users. VACOR is sold only as a bait, while DLP-787 is sold both as a bait and tracking powder.

The original product on the market was VACOR RATKILLER which is a 2% bait formulated for use against rats and mice. DLP-787 RATKILLER came on the market next as a rat and mouse bait for professional users and is similar to VACOR RATKILLER. The third product to be introduced into the market was DLP-787 MOUSE TRACKING POWDER, a 10% RH-787 tracking powder designed for use against house mice. These products are registered for indoor and outdoor use.

VACOR(R) RATKILLER AND DLP-787™ RATKILLER

In 1978 two new products will be introduced to the market for use against rats, products that will inherit the names of the original products, VACOR RATKILLER and DLP-787 RATKILLER.

The percent active ingredient in these two products will be 0.5% RH-787. Application has already been submitted to the EPA for registration, and these products will be made available commercially soon after registration is received. Both of the products will bear the new label claim "Kills anticoagulant-resistant Norway rats."

Reduction in the percent active ingredient will be an improvement for two reasons. First and foremost, it will increase safety 4 fold. Second, the rats will consume approximately 6 times more bait.

We are currently considering a reduction in the size of the place pack to 15 gm. This would allow better distribution and increase acceptance. Reducing the total amount of material available in each place pack will also increase safety. Theoretically this might increase safety another 2+ fold.

In the case of DLP-787 RATKILLER, an additional package will be made available. The exact package has not been determined, but it may be 25 lbs. packaged in a pail or 50 lbs. in a bag. A larger volume package should be useful in the professional market. Other product packages for this line are also under consideration.

In field trials 0.5% RH-787 has proved very effective against both Rattus norvegicus and R. rattus (Table 1). This bait averaged 97.8% control against Norway rats according to food consumption census

Table 1. Results of field trials using 0.5% RH-787.

Active Ingredient	Target Species	No. of Tests	% Control (Avg.) Food Consumption Censusing	% Control (Avg.) Live Trap Censusing
0.5% RH-787	R. norvegicus	2	97.8	96.2
0.5% RH-787	R. rattus	2	94.7	94.0

and 96.5% according to live trap census in two trials. In two other field trials against roof rats food consumption census averaged 94.7% control and live trap census 94% control using 0.5% RH-787. The method used in these trials was presented at the ASTM symposium in Monterey, California in March 1976 (Peardon, D.L., 1977).

VACOR MOUSEKILLER AND DLP-787 MOUSEKILLER

Two other new products will be introduced into the market in 1978; VACOR MOUSEKILLER and DLP-787 MOUSEKILLER. As with the RatKiller materials, these products will be similar except for the name. DLP-787 MOUSEKILLER will be sold exclusively for professional use. The two products will contain 2.0% RH-787 mouse bait blocks affixed to one wall of a compartmentalized mouse station. A 5 gm. bait block will be used.

The new MouseKiller products will be an improvement for several reasons. First, both will increase safety by making the bait less attractive to children, less accessible - except to mice - and the total quantity of bait per placement will be reduced from 36.85 to 5 gm. In addition, the efficacy will be improved. The mouse station will serve as harborage for mice and encourage them to visit the bait placement. The station will also increase their exposure time, since the mice will be more content in the station than they would be eating from a dish placed in the open, and they are more apt to stay for extended periods of time. In addition, an especially well-accepted mouse formulation will be used as the bait.

VACOR RAT AND MOUSE KILLER AND DLP-787 RAT AND MOUSE KILLER

VACOR RAT AND MOUSE KILLER and DLP-787 RAT AND MOUSE KILLER will replace the two original baits, i.e., VACOR RATKILLER and DLP-787 RATKILLER. Both of these products will consist of 2.0% RH-787 baits packaged in 36.85 gm. place packs. They will, as before, carry label directions both for indoor and outdoor use, and for use both against rats and mice. The characteristics of these products were published in the November 1977 issue of Pest Control (Peardon and Ware, 1977).

It was interesting to compare RH-787 with 1080, a single-dose rodenticide widely viewed as being very efficacious. Two tank tests were set up side-by-side using 20 Norway rats (10 male and 10 female) in each tank. Our product, 2% RH-787, was 95% effective in one test while 1080 (0.25% a.i.) was only 75% effective in the other, Table 2. The latter result was surprising. However, the reaction of the rats on 1080 was also surprising. Almost immediately after initiation of the tests, the rats on 1080 became exceedingly frightened and skittish, and shied away from eating any food.

Table 2. Results of laboratory tank tests using 2% RH-787 and 0.25% 1080.

% Active Ingredient	Day	Mortalities 1	2	3	4	5	6	7	8	Total	% Control
2 RH-787		4	13	1	1	0	0	0	0	19/20	95
0.25 1080		10	4	1	0	0	0	0	0	15/20	75

DLP-787 MOUSE TRACKING POWDER

DLP-787 MOUSE TRACKING POWDER is the way to kill mice. This product is only available to the professional user and its reception among professionals has been exceptional. Sales continue to grow.

The tracking powder can be purchased in cases of 20 8 oz. packages or in a package containing an 8 oz. jar with 25 MOUSE TRACKING STATIONS. The latter is the ideal package because it is handy and easy to use, and it is the most effective way to kill mice. Details on the use of DLP-787 MOUSE TRACKING POWDER were published in the October 1976 issue of Pest Control (Peardon, 1976).

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