Rat Poison Advertising in America: The First 100 Years

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A short history of the severe rat problems in various geographic locales in 19th and 20th century America will be presented. From the early elegance of Harlem to the plains of Iowa and the tragedies of San Francisco’s earthquake fire will highlight the scourge of the rat.

In my findings the earliest packaged and brand name rat poison appeared in the early 1850's. By the 1880's numerous rat poisons were being commercially marketed and advertised across the United States. The earliest commonly sold poisons were usually arsenic or phosphorous powders. In the 1920's cyanide was used in several product formats. An extremely popular product used for over 20 years was Red Squill. The sources of this powerful toxic plant extract terminated with World War II. Scientists at John Hopkins University developed a Red Squill substitute called ANTU (Alpha-naphthyl-thiourea). This new rat poison became known as “The Miracle Rat Killer” into the 1950's. In the case of each rat poison, advertisements and discussion will be presented.

The Rat in the United States

Throughout most of recorded history the black rat and the brown rat have conquered the world. The rat is an unmitigated pest and nuisance. There is nothing that can be said in its favour. It can live anywhere and eat anything. Its destructiveness is almost unlimited. They destroy cultivated grains, seeds and sprouts. One rat can eat 50 lbs of corn per year. The rat was the greatest enemy of poultry, killing young chicks, turkeys, ducks, pigeons, and they ate an enormous amount of eggs, they also destroyed wild birds and many species of song birds. Rats also destroy general merchandise, both stored and in transit like all forms of leather goods, cloths, books and of course fruits and vegetables. They have gnawed holes in dams starting floods, and started fires by chewing on matches. Perhaps the most important factor when discussing rats is that of a carrier of disease. Rats’ bites, feces, and urine, and rat fleas all cause some of the worst diseases known. Plague, typhus, trichinella spiralis, rat-bite fever, infectious jaundice, possible trench-fever and equine influenza. They have eaten the noses and ears off of
infants (1). In 1947 to 1953 New York City recorded on the average 500 rat bites per year and nation wide the statistic rose to 45,000 rat bites per year. New research findings indicate contaminating factors such as rat hair, feces, and urine carry ectoparasites that can cause allergic reactions and asthma. These ectoparasites are found on food, food processing machines, floors, counters, tabletops, and cookware for example. People with allergies can develop hypersensitivity to proteins in rodent urine causing asthma attacks. Results of skin tests on asthmatic children in major American cities have shown that 18 percent of them are sensitive to mice and 20 percent to rats. In one study, 95 percent of inner-city homes had detectable vermin allergens (2). Rats have inhabited the White House, eaten cadavers in New York’s coroner’s office and killed homeless people.

An 1856 sanitation report from New York City mentioned children who were paid to sweep through the garbage on Broadway so pedestrians could cross without being covered in filth. In 1864, New York physician, Stephan Smith directed a sanitary survey of New York a landmark event in American history, the most comprehensive ever made. He found unimaginable living conditions. Overflowing privies contaminated the city’s water wells, slime covered horse manure covered streets. Fat boiling establishments, slaughterhouses were widely dispersed over overcrowding tenements. One inspector reported that blood and liquid animal remains flowered for two blocks down 39th street. Dead cats, dogs, rats and other vermin littered the streets. Streets were heaped with horse manure, thousands of tons. During the year 1880, 15,000 dead horses had to be hauled of New York City streets. Filth of every kind was thrown into the streets covering their surfaces, filling the drains, the gutters, the culverts and sending forth what was called the “perennial emanations, which must generate pestiferous disease.” (3).

In the 1890’s, Harlem was the fashionable, residential area for the rich New Yorker when the electric railway brought it within easy reach of Lower Manhattan The Harlem Magazine of 1893 observed:

... it is evident to the most superficial observer that the center of fashion, wealth, culture, and intelligence, must, in the near future be found in the ancient and honourable village of Harlem (4).

However, even with the elegant testimonies, Harlem was also being overrun with rats.
The New York Times, December 8, 1898 published a story with the headline, “Rats in a Harlem Flat”. Several tenants of the 5-story flat, on 17 Manhattan Avenue, complained repeatedly and bitterly to the New York Board of Health about rat infestations. One tenant a Mrs. Samuel Davies was frightened almost into hysteria by seeing a big rat perched on her baby’s crib eyeing the infant with malevolence. They eat any food left out, they sleep in the beds, play throughout each of the flats and all the tenants threatened to move out of the building unless something was done. The rat infestation had taken over fashionable residential Harlem (5).

New York’s biggest rat battle was at Riker’s Island between 1915-1930’s Sullivan (2004) believed that in 1894 that “such a mass of putrescent matter was perhaps never before accumulated in one spot in so short a time” p. 38. The Island near the Bowery became a rat utopia. In 1933, it was estimated 3,000,000 lived on the Island and rats ate the prison dogs and pigs.

In the approximate time frame of this paper, between January 1959 - June 1960, 1,025 rat bites were reported in New York City. This figure was twice as many as reported in the next ten largest American cities combined.

From New York to San Francisco the largest cities in America were being overrun by rats. April 18, 1906, San Francisco lay in ruins. Immediately after the earthquake the rat population grew exponentially. The ruins, the broken and chocked sewers formed excellent nesting places while the destroyed warehouse and uncollected garbage furnished an unlimited food supply. Rats became the most visible reminder of the earthquake and the state of physical and sanitary ruin that challenged the city (6). In 1925, the U.S. Department of Agriculture issued a Press Release on rat campaigns. In the United States rats destroyed $200,000,000 worth of property each year. Rats destroyed every year as much as 200,000 people can produce and this loss more than equals the value of all crops in the State of Louisiana. They ate 6 percent of all stored corn in America (7). In 1943, the Department of the Interior believed that rats continued to cause cover $200,000,000 damage despite all efforts to decrease the damage. In cites it was believed $2.00/rat damage was done and $1.00/rat on farms. It was also estimated that the U.S. farm rat population was approximately 60,000,000 (8).

To conclude this section on rats in the United States, the next geographic area of
discussion is Baltimore, Maryland. From 1942-1946 one of the first citywide experimental rat-control efforts in the world took place. The costs that rats inflicted on both public health and the economy during World War II underscored the need for a systematic, scientific approach to rat control in America. Studies continued to estimate over $200,000,000 in damages and a new wartime threat surfaced. Many thousands of troops contracted the rat-borne tsutsugr Cushiki disease in the South Pacific. Officials feared that enemies of the United States would wage germ-warfare by using rats as vectors to spread the plague. When the war cut off supplies of traditional plant-based rat poison (red squill the U.S. Office of Scientific Research and Development (OSRD) the federal agency responsible for wartime research, intensified its efforts to develop new chemical rodenticides. Baltimore was the city chosen to be the test site since scientist at John Hopkins University had developed such a much needed chemical compound. Curt Richter of John Hopkins discovered the compound phenyl thiorea was lethal yet tasteless to domesticated rats. The OSRD patented Richter’s winning compound as ANTU in December 1945. Although non-toxic to humans (so long as they did not consume it) ANTU was 100 times more poisonous than red squill and twice as poisonous as thallium sulphate-the most toxic poisons then in use. ANTU killed rats within 16-30 hours by filling their lungs with fluid causing them to drown. During four years of research in Baltimore, Richter reported that a volunteer citizen work force had collected over 1,000,000 rats that had been killed by the ANTU poison (9).

100 Years of Rat Poison Advertising: The Brands

The earliest branded rat and vermin killer product the researcher found was Simon’s Phosphorus, 1852, Figure 1, no additional information was found on this product. The other commonly used arsenic rat poison of the 1860’s era to the late 1920’s was ROUGH ON RATS Figures 2, 4, 6. In the mid to late 19th century there was a definite and widespread trends to manufactures to use brand names. It was early on observed that manufacturers whose trademark and extensively advertise their products prove their own faith in the merit of the article and practically puts up a bond to vouch for it (10). In 1911, The Lord and Thomas advertising agency portrayed the agency as an altruistic force spurring the industry and the American consumer into a relationship of mutual social value the following brand products promoted by
the manufacturer and the advertising had the advantages of:

- Compelling a definite action on the part of millions to buy the product.
- To cause the minds of these millions to work in accord upon an impulse which the advertiser transmit via type (and images) to sway exorably towards the promoted product.
- To determine in advance that through the advertisers' skill and will the company shall make a concerted movement toward a purpose of purchase they never previously contemplated in direct response to the printed symbolic (11).

ROUGH ON RATS (circa late 1850's – early 1860's) was one of the most widely distributed and best known branded rat poison products whose main ingredient was powdered arsenic. Walter Dill Scott, Father of Psychology in Advertising, noted in 1908:

Anything will be remembered which awakens our emotions, whether the thing be ugly or beautiful, whether it causes us to smile or to sympathize with the sorrows of others. That which excites an emotion is not easily forgotten, and hence is a good form of advertising. I find that the advertisement for ROUGH ON RATS has made such an intense impression on me that it has stuck in my memory, and I see no prospect of being able to forget it soon (12, pps. 119-120).

To me (and others) the ROUGH ON RATS advertisement, exaggerated as it is, conveys the idea that one had better invest in ROUGH ON RATS so as to avoid the household confusion brought about the impetuous chase after the rat. I can not think of a single rat poison except ROUGH ON RATS... were I obliged to purchase a rat poison in a hurry, I should undoubtedly get ROUGH ON RATS (12, pps. 269-270).

E.S. Wells, the manufacturer of ROUGH ON RATS, used print advertisements, tradecards, almanacs, promotional verses and song, as well as cheque and envelopes Franks (stamps). Figure 1, shows the Simon's box label, and Figures 2, 4 and 6 indicate the visual and semantic representations of this well-known arsenic based poison. Notoriety befell the product and its advertisements during the strong nativist movement of the 1870's that pervaded much of white America outlook towards immigrants especially the Chinese. This Figure 4 continues to be
discussed even today. “They Must Go” was the much used slogan of the California, Workingmen’s Party of Denis Kearney in the 1870’s of all the rat poison advertisements this is the one example where a political slogan was incorporated into a consumer products: the value social relationship feared that Rats must go, as well as the Chinese. At the same perceptual moment the viewer of the tradecard also witnessed the dirty, the filthy, and the unacceptable eating habits—the disease ridden/rodent eating alien “other” the Chinese. (13). In basically the same time period, the Good Luck Liniment Co. of Sabetha, Kansas, had a branded rat poison called Chinese Rat Destroyer, Figure 5 the sub headline was: The Greatest Known Destroyer of Rats, Mice, and all Vermin. The visual image of a male, pigtailed Chinese holding a rat to his mouth tries to link brand name, subhead line, and visual text interconnected to give the impression that the Chinese eat rats, Figure 7. The Rataline brand of rat poison, Figure 3 uses a very objective and quantitative approach. This is a liquid product and one bottle will kill 250 rats, at a minimum cost of 25 cents. Studies of 1878 showed that each rat cost the farmer approximately $1 of damage so the savings from the use of one bottle of Rataline was very considerable. The Hingston Co., of Buffalo, New York, also used the celebrity endorsing effect by inserting the name of Professor Urg (of England) stating that without exception, Rataline was the best rat poison known. In the 1860’s, a widely sold rat poison was “COSTAR’S” Vermin Exterminator, a phosphorous based rat exterminator. Figures 8 and 9 are 1860’s print product advertisements from Harper’s Weekly. The April 30, 1864, advertisement promoted the following sales/consumers features:

“Free from poisons.”
“Not dangerous to the Human Family”

The phosphorous based product was fatal if consumed by humans as illustrated in the following two newspaper articles. Mrs. Millie Peer, of Broadway and Thirteenth Street, died of consuming phosphorous based rat poison mixed with molasses that she had spread on bread. According to witness testimony:
While she was mixing the stuff in a saucer her servant said to her, 
"Don't come near me with that poison." "Pshaw!" exclaimed Mrs. 
Peer, "this won't hurt anybody," and she showed the servant a 
label or the box which declared that the contents were not 
poisonous to human beings, but would destroy rats and other 
vermin. The servant is positive that the box was so labeled (The 

In the article, it was not stated that "COSTAR's" Vermin Exterminator was the cause of death, 
but it was a New York City Company (based on Broadway, was a widely used product and 
readily available in many druggists' and retailers' outlets. The second fatal death was due to 
"COSTAR's." On November 23, 1894, the New York Coroner Miles concluded his inquest as to 
the deaths of Mary and Michael Linehan who died after eating some of the "COSTAR RAT and 
ROACH EXTERMINATOR" which was labelled "Free from poison. No danger in using." 
Gilbert M. Richardson, the President of the company, with offices at 34 Clinton Place, New 
York, and Nicholas S. Kelley, the Secretary, were arrested on a charge of manslaughter in the 
second degree.

At the inquest Druggist Albert Van Houton testified to having purchased some of the 
Exterminator from the Costar Company. As it was labeled not poisonous, he said, he took no 
precautions in selling it. Mr. Lenehan, the children's father bought the rat poison from Van 
Houton.

The autopsy showed that the children's death has been caused by phosphorous. Several 
witnesses testified to having since purchased some of the Exterminator. It was then labeled 
"Poison" and they were required to register their names.

The jury found the children came to their death by phosphorous poison contained in the 
"Costar Rat and Roach Exterminator," unlawfully labeled "Free from poison. No danger in 
using." The prisoners were held in $7,500 bail for the action of the Grand Jury (The New York 
Times, November 24, 1894, 1 (15).

In 1884, the product was given a most positive testimony in an industry publication.
piece on the “Costars” product read:

The famous “CVE’s,” are so widely, and might say universally known and used that further reference would be superfluous. The “Exterminator” for rats and mice is the only infallible remedy known, it is not dangerous to the human family, but it is sure death to mice and rats (Edward 1884, 208 (15).

Arsenic and phosphorus continued to be used as the main ingredient in rodenticides well into the 1920’s. Product forms also began to change and in 1928 we have an advertisement from McCall’s Magazine for Rat Bis-Kit Figure 9. No more powder, 18 biscuits to a tin, the product is clean, the use of the biscuit is quick, easy, clean and economic. The 1940 World War II period saw the use of red squill, and its supply termination (from the Mediterranean area specifically) and the use of cyanide. Arsenic, phosphorous and cyanide were very dangerous to other animals and to humans so there was always a societal concern about the efficacy of these ingredients as rat killers but more importantly to humans. K-R-O (Kills Rat Only) Figure 10. Rat Bis-Kit, Cyanogas Figure 11 all included an emphatic visual (the rat) and this follows somewhat the similar image that Rough-on-Rats for over fifty years. The dead rat lying on its back accompanied with the longstanding slogan “The old reliable don’t die in the house”. The late 1940’s and early 1950’s saw a major rodenticide breakthrough with the introduction of the chemically based product ANTU Figure 12 (Alpha-naphtyl-thiorea). This product was quickly labelled “The Miracle Rat Killer”. The laboratory manufactured rodenticide was to replace red squill which was grown in Italy, Sicily, southern France, Greece, Malta, Morocco, and Algeria for example. All the territories were now the locales of World War II and the chains of red squill supply were disrupted. Until the ANTU discovery red squill was seen as the ideal rat poison as it did not kill humans. ANTU was 100 times more poisonous than red squill. The Advertisement was published in The New York Times, 22 September 1946. LANTU: “Never Before! War-Time Secret Revealed: The Miracle RAT Killer”. The copy reads that science and its outcome ANTU has now dealt the rat a lethal blow, the creation is dry bait that rats crave and death
follows quickly after ingestion. The copy also mentions the field tests and highlights the facts that in 1946 the rat population in America was 250,000,000, and property/crop damage amounted to $500,000,000. The ad also appeared in October’s issue of Reader’s Digest so circulation and potential readership were in the millions. The advertisement Figure 13 “Drop dead, rat” ANTU has your number appeared in The Wall Street Journal, 17 August, 1948, Part of this advertisements body copy read:

The cunning disease spreading property ravaging rat has plagued the world for centuries and defied mankind until now. Poison, guns, troops have all failed to accomplish what the scientist has now done ANTU is now the most effective rat poisons yet developed.

Environmental Control

From 1852 to 1948 almost one hundred years of rat poison advertising has been shown and briefly discussed. Yet, the arrays of poisons were never totally successful and the Baltimore/Richter test clearly indicated the need for a parallel ecological approach in the battle against rat infestations. In 1948 for some reason this was deemed somewhat of a breakthrough, yet in 1908 the city of San Francisco passed a city wide ordinance for the city’s reconstruction. All walls of basements and buildings and store rooms, warehouses, residences and all other buildings: chicken yards, pens, coops, houses, stables, barns were to be rebuilt and made impervious to rats. Concrete replaced wood. Every residence and business was required by law to keep at the ready a variety of rat traps. The dumping of garbage anywhere except in regulation receptacles with tight fitting tops was prohibited. Local neighbourhood watches were established. Mothers, school groups, community organization were all interconnected to the city wide surveillance. The doctrine, the community preaching of the “Word and the World of Sanitation”, gripped San Francisco’s (14). So it would seem that in 1908 the “City by the Bay” had early on discovered good old-fashioned cleanliness-ranks among the most effective methods of holding rats in check, see Figure 14.

The ANTU discovery and testing campaign spawned an unexpected outcome in the form of the Rodent Ecology Project which flourish at John Hopkins University of Baltimore from
1945-1952. The rodent ecologists created a new sub field and produced pioneering knowledge about rat population dynamics. Their discoveries about the importance of community cleanliness rather than the application of chemical compounds in successful urban rat control provided quantities evidence that an ecological approach was also required not just a technological fix promoted by RAT POISONS ADVERTISING.

References

8. Department of the Interior, Information Service; to PM’s of Wednesday, December 23, 1943, P.N. 32623.
Visual Representation's Semantic & Images

Figure 1: Simon's Phosphorus, rat poison, box label, 1850's.
Figure 2: ROUGH ON RATS, rat poison, E.S. Wells, Jersey City, New Jersey, tradecard, circa 1860-1870's.
Figure 3: RATA-LINF, rat poison, Hingston & Co., Buffalo, New York, tradecard 1878.
Figure 4: ROUGH ON RATS, rat poison, E.S. Wells, Jersey City, New Jersey, tradecard, circa 1875-1880.
Figure 5: Chinese Rat Destroyer, rat poison, The Good Luck Liniment Co., Sabetha, Kansas, box label, circa 1880's.
Figure 7: "1864 Rats Roaches, etc." 1864. "Costar's "Vermin Exterminator. Harper's Weekly. April 30, 286.
Figure 8: ROUGH ON RATS, rat poison, E.S. Wells, Jersey City, New Jersey, print advertisement, Woman's Home Companion, December 1927, 169.
Figure 9: RAT BIS-KIT, rat poison, The Rat Biscuit Co., Springfield, Ohio, print advertisement, McCall's Magazine, October 1928, 115.
Figure 10: K-R-O, rat poison, KoRoO, Co., Springfield, Ohio, print advertisements, Home Arts-Needlecraft, April 1940, 22.
Figure 11: CYANOGAS, rat poison, Cyanamid & Chemical Corp., 30 Rockefeller Plaza, New York, print advertisement, Country Gentleman, October 1940, 62.
Figure 12: LANTU "The Miracle Rat Killer," rat poison, Breck's, Boston, Massachusetts, print advertisement, The New York Times, September 1946.
Figure 14: "Starve, Trap, Poison, RAT-Proof Your Place", outdoor billboard, San Francisco post earthquake 1908, Susan Craddock City of Plagues, University of Minnesota Press, Minnesota, 2000, 153.
Figure 3

Figure 4
AN OLD SONG

Set to a New Tune.

As Spring approaches,
Ants and Roaches,
From their holes come out,
And Mice and Rats,
In spite of Care,
Gaily skip about.
Beetles, bugs, etc,
You, in the night;
As on the bed you slumber,
While insects crawl
Through chamber and hall,
In squads without number.

Go to "COSTARS!"
Go to "COSTARS!"—$1 Box for less Rat, Beach, Cro.
Go to "COSTARS!"—an bug, &c., Exterminator.
Go to "COSTARS!"—$1 Bottle for less Bed-bug Ex.
Go to "COSTARS!"—Exterminator.
Go to "COSTARS!"—$1 Flak (or less) Electro Powder.
Go to "COSTARS!" for Insects, &c., Mosquito in Flak.
Go to "COSTARS!"—Clothes, Carpets, &c.
Go to "COSTARS!"—Direct Remover to No. 512 Broad.
WILL DESTROY

THE VERMIN ON ANY PREMISES.

Drugists and Retailers everywhere sell them.
$1 Sample Box can be sent by mail.

t-sharpness! of all imitations of "Costars!"

"Costars'" Vermin Exterminators
Harper's Weekly, May 12, 1860, Page 302

1864 RATS, ROACHES, &c. 1864

As Spring approaches,
Ants and Roaches
From their holes come out;
And MICE and RATS,
In spite of CATS,
Gaily skip about.

"Costar's" Vermin Exterminators
Harper's Weekly, April 30, 1864, Page 286
Figure 8

Figure 9
KILL RATS WITHOUT POISON

YOUR MONEY BACK IF RATS DON'T DIE

K-R-O won't kill Livestock, Pets or Poultry; Gets Rats Every Time.

K-R-O is made from Red Squill, a ratcide recommended by U.S. Dept. Agr. (Bul. 1533), Ready-Mixed, for homes, 35¢ and $1.00; Powder, for farms, 75¢. All Drug and Seed Stores. Damage each rat does costs you $2.00 a year. K-R-O Co., Springfield, O.

K-R-O KILLS RATS ONLY

Figure 10

CYANOLOGAS

REG. U.S. PAT. OFF

KILLS RATS

A gas-producing powder—Not a Bait. It's the gas that kills 'em.

ONE WHIFF KILLS RATS INSTANTLY

For Free Booklet on how to kill rodent pests write Dept. A-5.

1 lb. 45c • 1 lb. 75c • 5 lbs. $3.00
25 lbs. $10.00
100 lbs. $25.00

At Drug, Hardware, Seed, Feed Stores

AMERICAN CYANAMID & CHEMICAL CORPORATION
30 Rockefeller Plaza, N. Y.

Figure 11
WAR-TIME SECRET REVEALED!

LANTU
THE MIRACLE
RAT KILLER

Wolves Age Old Problem of Rat Control

Ants have always waged a BATTLE against light and their cleverness on the rats. Never entirely successful, he has at last only kept this
inhabitant remote from our playgrounds. But NOW... Science
beats the rat at its own game! Thanks to "ANTU", a wonder of wonder
powder patented by Dr. Michter of Johns Hopkins University, rats may be exter-
minated quickly and economically. "ANTU"—as used in our prepared
LANTU—is cleverly mixed into a unique dry ball which rats consume,
"ANTU" kills rats almost immediately after they eat it, either directly or
by holding the irritating chemical on their paws. They literally drown in
their own body fluids! Humans and pets would have to eat actually
more amounts to be harmed.

In Baltimore, it rid 25,000 city blocks of rats in an expeditious and conclusive test. It is to 20 to 30 times as effective as the standard rat poison... requires only a taste or two to kill rats. In LANTU Residences, it is
ruled for the first time... strongly-recommended, results guaranteed.
(See also October Readers Digest-Episode 3)

Dealers Write for Wholesale Prices

3 oz. can... $1.00

EDESMEN SINCE 1818

BRECKS

173 BREEK BUILDING
BOSTON 9, MASS.

"Drop dead, rat!"

ANTU* has your number!

*Alpha-caproyl-thiouride

There are 1,000,000 rats in America today, says a recent government report, and 70,000,000 to 55,000,000 to 60,000,000 are wiped out by the use of "ANTU" in the 28 re-nowned cities of America. The
figures are based on a survey of rat control methods in these cities. The
use of "ANTU" is estimated to have reduced the rat population by 25 to 30 percent in each city.

PITTSBURGH COKE & CHEMICAL COMPANY

Figure 12

Figure 13