



A Good Word For Rats

RATS, like the Devil, are given their due in the new U. S. Department of Agriculture yearbook. These despised and hunted intruders in man's house are put to extensive use in at least one phase of man's service, it is pointed out.

One reason why rats have been so successful (from their own point of view) as man's uninvited house-guests is that their appetites and physiology are so much like our own. Hence it is possible to use them as living test tubes to assay the value of foods intended for human consumption. No modern nutrition laboratory is complete without its colony of thousands of caged rats.

Other animals are available as food testers, of course: "Try it on the dog" is proverbial procedure with appetizing-looking but suspicious novel foods. But dogs are expensive, and even guinea pigs and rabbits are underbid by white rats.

"The rat is small and handy," the Yearbook points out. "Several hundred of the animals can be kept in comfort in a space the size of an ordinary living room. A rat can be fed for 50 cents a year as compared with \$4.50 for a rabbit, \$15 for a dog, \$75 for a dairy cow, and \$400 for an elephant.

"Just as important as economy is the fact that the rat lives very fast. Its life span is two to three years, so that one year is equivalent to 20 or 30 years in the life of a human being. It is possible to carry on an experiment with rats that will cover not only one generation but many successive generations."

Science News Letter, January 13, 1940

Wild swine in the New York Zoo demonstrated the plowing power of a pig's snout when they thoroughly tore up a macadam road.

MEDICINE

Synthetic Female Hormone Pills Considered Potential Danger

PILLS of synthetic sex hormone which the woman over 45, and sometimes a younger woman, can swallow to get relief from distressing symptoms of glandular failure are effective but potentially dangerous.

This verdict is announced by the American Medical Association together with a statement from its council on pharmacy and chemistry that the new product "should not be recognized for general use or for inclusion in New and Non-official Remedies at the present time." (*Journal, American Medical Association, Dec. 23*)

Liver damage and cancer are among the possible dangers seen in use of the new synthetic hormone. The medical profession in general is advised not to use it until further studies have been made by experts.

Stilbestrol is the name of the new product. It was synthesized by a group of English scientists, Drs. E. C. Dodds, L. Golberg, W. Lawson and R. Robinson. While its effect on the body is like that of one of the female sex gland hormones, its chemical composition is quite different.

Important advantage of stilbestrol over the natural hormone, besides its lower cost, is that it can be given by mouth without any loss of potency. Other sex gland products are usually given by hypodermic injection, to give an effective amount at least expense. This one can be given either in pills or in doses of oil.

The headaches, depression and hot flashes which are distressing symptoms experienced by most women over 45 years have in some cases been completely relieved by stilbestrol. The new synthetic hormone has also been given with success to a few young women whom nature had partially cheated of their womanhood.

Success with the use of stilbestrol in women suffering from sex gland failure is reported to the American Medical Association by three groups of physicians, but two of the groups warn of its possible dangers.

Toxic symptoms, including nausea, vomiting, abdominal distress, loss of appetite, lassitude, skin rashes and even

mental disorder, occurred in 35 out of 44 women treated by Drs. Ephraim Shorr, Frank H. Robinson and George N. Papanicolaou, of New York City. Tests showing that stilbestrol might cause liver damage are also reported by this group, though they state that more studies must be made to clarify this point.

No such toxic effects were noted by Drs. C. L. Buxton and Earl T. Engle, of New York City, following treatment of 17 patients, all but two of whom were helped by the treatment. Sex hormone treatment of women with cancer in the family, however, should be given cautiously, these doctors warn, whether natural or synthetic hormones are used, because these products have proved cancer-inducing in animals.

Good results with stilbestrol in treatment of 37 women without any sign of toxic effects are reported by Drs. Cyril H. MacBryde, Harold Freedman and Ellen Loeffel, of St. Louis.

Science News Letter, January 13, 1940

A paper museum at the Massachusetts Institute of Technology, recently opened, includes exhibits from all over the world.



GROW PRIZE-WINNERS CREATE UNHEARD OF PLANTS IN GARDEN - HOUSE - CLASSROOM

SOILLESS GARDENING (growing plants in chemicals) **COLCHICINE** (revolutionary chemical creates giant new unheard of plants and fruits, huge doubled and redoubled flowers) **PHOTOSENSIN** (makes plants vitally super-sensitive to light) **VITAMIN B1** (produces giant, prize-winning "MYSTERY" flowers) **INSULATED GREENHOUSES** (electric lamps only heating plant required, use less glass makes greenhouses available to many)—the above mentioned articles plus page after page of **SCIENCE and MEDICINE**—and—

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