

## MEDICINE

# Winter Shots Avert Polio

Babies and children taking diphtheria and whooping cough shots during the summer and early fall are more susceptible to polio.

► TO avoid danger of infantile paralysis, babies and children should not be given "shots" against diphtheria and whooping cough during summer and early fall, when infantile paralysis is likely to appear.

This warning was sounded at the sixth International Congress of Pediatrics in Zurich, Switzerland. It was based on findings of a number of doctors in England and Australia. The baby and child specialists who devoted a special section to this subject considered it one of the most significant of the Congress.

Babies routinely immunized against diphtheria and whooping cough contracted infantile paralysis more often than other children, Drs. Philip R. Evans and J. Kenneth Martin of Guy's Hospital, London, and Dr. B. P. McCloskey of Adelaide, Australia, discovered independently in the summer of 1948.

The paralysis, these doctors found, nearly always affected the arm or leg where the "shots" had been given.

The presumption is that had it not been for these "shots" the poliomyelitis virus might have produced either no visible disease or else non-paralytic disease. The injections, however, lowered the resistance of the child locally, that is, in the arm or leg, or else set up conditions favorable to the local multiplication or spread of the virus, resulting in local paralysis.

Dr. Martin who has moved to Winnipeg, Canada, confirmed these findings last summer in that Canadian city.

A statistical analysis of the findings which indicates they are highly significant has been made by Dr. Bradford Hill, in England.

Dr. Martin was at first very hesitant to report his findings, fearing that they would stop people from having children and babies immunized against diphtheria and whooping cough. This would be bad because both diphtheria and whooping cough are much more likely to kill than infantile paralysis. They are also likely to attack many more children when the immunizing "shots" are not given.

Dr. Evans and others at the Congress feel that the net result of the findings should be merely to change the time when these protective immunizations are given, so that they are not given during summer and early fall, the polio season, or at any time when polio is prevalent in the community.

Smallpox vaccination does not seem to produce the predisposition to paralytic polio

attributed to diphtheria and whooping cough immunizations.

Reports on the link between polio and whooping cough and diphtheria immunizations were given by Dr. Evans and Dr. W. H. Geffen of St. Pancras Hospital, London.

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## ENTOMOLOGY-CHEMISTRY

## Chemical Dust Jacket for Grains Kills Insects

► CHEMISTRY has come up with a new weapon against a public enemy now costing the U.S. about \$500,000,000 a year.

One-shot chemical treatment of a grain elevator or storage bin, giving protection for an entire season against the weevils, beetles and other pests which ruin up to 10% of the nation's grain crop after it has been harvested, was announced by U.S. Industrial Chemicals, Inc.

The treatment is built around a relatively new insecticide called pyrenone. For wheat protection, the chemical firm mixes this compound with fine wheat dust; for other grains, with fibrous talc, a finely-ground mineral.

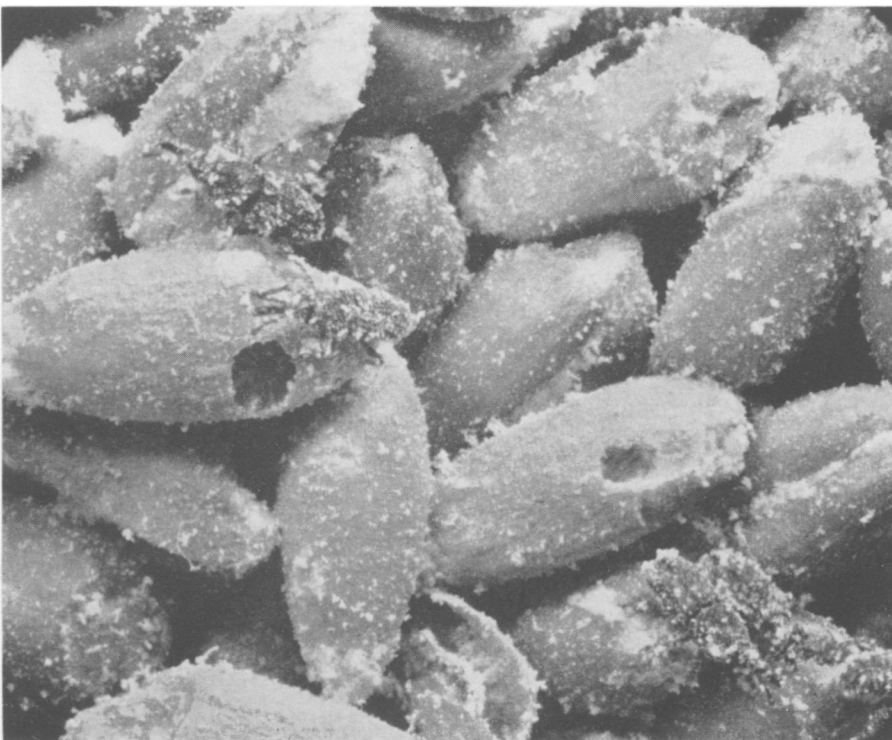
Applied to grains as they go into storage, these dusts cling to the kernels. The insect-proof vests they provide have been shown in extensive tests to last as long as nine and a half months. Yet the insect-killing ingredient in the dust, a chemical called piperonyl butoxide, is completely harmless to humans or animals. Thus it may be used with safety in grains headed for the flour mill or the feed trough.

Until now the only insect control available for stored grain has been fumigation. This gives a good kill of insects already in the grain, but offers no protection for infestations a week later.

The U.S. Department of Agriculture is currently testing the new compounds at its insect laboratory in Manhattan, Kans. Government officials said the new product has a huge potential market, running to many millions of dollars.

This year U.S. Industrial Chemicals will have only limited quantities of its new insecticides available. But as production increases, prospects for the familiar weevil and his billion-dollar appetite will take a decided turn for the worse.

Science News Letter, August 5, 1950



**WEEVILS AT WORK**—The insects lay their eggs in the holes bored into the kernels, which are tiny pinpoints to the naked eye. The snow-like residue on this untreated grain is left by the insects. Treatment with pyrenone would prevent such havoc as this.