

MEDICINE

Humidity Checks Germs

A 50 percent relative humidity reduces the infecting ability of influenza virus about four-fifths, experiments indicate.

► A RELATIVE HUMIDITY of 50% promises to become a weapon against influenza, pneumonia, strep. sore throats and perhaps other diseases on the basis of experiments by scientists at the University of Chicago.

Influenza virus loses almost four-fifths of its ability to attack when the relative humidity is 50%, Dr. William Lester, Jr., of the University's department of medicine finds.

The results of his experiments resemble closely those reported last winter by Edward W. Dunklin and Dr. Theodore T. Puck of the University. They discovered that a 50% relative humidity is rapidly fatal to Type I pneumonia germs, staphylococci and streptococci. (See *SNL*, Feb. 28.)

Viruses were not included in the Dunklin-Puck experiments. Dr. Lester has now exposed white mice to influenza A virus atomized into the air the animals breathed. The amount of virus that killed 100% of the animals at relative humidities of 30% and 80% killed only 22.5% of the animals when the relative humidity was 50%.

The other types of 'flu virus and the virus that causes virus pneumonia may be affected in the same way, though Dr. Lester's report to the *JOURNAL OF EXPERIMENTAL MEDICINE* does not cover studies on these other viruses.

The striking power, or infectivity, of the air-borne influenza A virus decreased so rapidly at a humidity of 50% that it was impossible, Dr. Lester reports, to get a 100% mortality rate in the mice even by greatly increasing the amount of virus.

Salt seems to play an important part in the anti-virus and anti-germ effect of humidity. At 50% humidity all the mice died when exposed to virus free of salt. This is in line with the findings of Mr. Dunklin and Dr. Puck on pneumonia, staphylococcus and strep. germs. They suggested that the humidity plays its lethal role on the germs by dehydrating them to the point where they become most vulnerable to the action of salt. In the Dunklin-Puck experiments germs sprayed from salt solution or from human saliva, which is the natural way they get into the air, were rapidly killed.

Science News Letter, October 23, 1948

ORNITHOLOGY

Sticky-Leaved Weed Catches Young Owl

► YOUNG OWLS should watch what they poke their heads into when out strolling; otherwise they may get stuck.

That would seem to be the moral of a brief but curious tale told by Dr. Gordon W. Gullion of the University of Oregon, in the Western bird-study journal, *CONDOR* (Sept.).

Dr. Gullion was on a field trip in the hills west of Eugene, Ore., when he came upon a young owl under a tar-weed, a common wild plant of this region, with leaves made exceedingly sticky by exuded drops of a soft resin. The poor bird had brushed its head against two of the leaves—and there it was, unable to get away or

to move more than a couple of inches.

The little owl was not quite fully grown and had not yet developed its flight feathers. Apparently it had left the nest and was walking on the ground through the bushes when it ran into this "tanglefoot"—or rather tanglefeather—plant.

Dr. Gullion rescued the young owl from its vegetable captor, though he had to pull all the stuck feathers out of its head to get rid of the clinging leaves. Then he put an identification band on one of its legs and let it go.

He suggests that the tar-weed may make occasional catches of this kind that do not end in the rescue of the captured birds.

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