



#### Tax on Food

➤ SHARING our food with the needy of other lands will be warmly debated in the coming weeks. But we are already sharing our food with other hungry mouths, to the extent of more than 10% of every year's crop, and getting not so much as a "thank you" in return. Worse

still, we eat at second table, only after these other uninvited guests have helped themselves; we take what insects choose to leave us.

The insect world's tax on American food is discussed in some detail in a chapter of a new book, *Insects and Human Welfare*, by Dr. Charles T. Brues, veteran Harvard entomologist, published in Cambridge by Harvard University Press.

Taking an average of ten pre-war years, Dr. Brues estimates that insects annually devoured or spoiled \$231,150,000 worth of the \$2,890,000,000 cereal crop, \$92,700,000 worth of the \$1,043,000,000 total of truck and garden crops, \$125,000,000 worth out of a total of \$2,500,000,000 in animal products, with proportionate losses to other crops adding up to a grand total of \$998,000,000 damage to food crops worth, altogether, \$7,798,000,000.

The damage that insects do to food and other crops is more readily understood when Dr. Brues brings in his chart of the feeding habits of all known species of insects. Of the 800,000 or so species, nearly half feed directly on plant tissues. Even though the majority of these live on plants of no economic significance, there are enough of highly numerous and very hungry species to account for all the listed losses.

Partly offsetting these harmful insects are other species that have to be counted as man's unconscious allies, such as the tiny wasps and flies that lay their eggs on the eggs or grubs of larger insects and so cause their destruction, or the lady-bird beetles with their tiger-like appetites for the flesh of six-legged prey. However, biological controls of this kind can only mitigate the damage, not stop it completely or even minimize it.

As one means of defense against the swarming, hungry hordes, Dr. Brues suggests seeking crop plants less liable to insect visitation; for example, the possible substitution of the little-bothered root crops, dasheen and Jerusalem artichoke, for the pest-ridden potato.

Science News Letter, November 15, 1947

MEDICINE

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## TB Treatment on Trial

A NEW chemical treatment of tuberculosis is now under trial by the Mayo Clinic and Minnesota physicians who first showed the possibilities of streptomycin in TB.

The chemical is para-aminosalicylic acid, a distant relative of aspirin. It is called PAS for short. For the past few months trials of it have been under way under the supervision of Dr. David Carr of the Mayo Clinic and Dr. Karl Pfuetze, of Mineral Springs Sanatorium, Dr. H. Corwin Hinshaw reported at a staff meeting of the Mayo Clinic.

Tests of the chemical on guinea pigs with tuberculosis were reported at the same time by Drs. William H. Feldman, Alfred G. Karlson and Dr. Hinshaw.

The new drug is not as powerful as streptomycin, "if it has any value at all," Dr. Hinshaw stated in reference to the work with the patients.

In spite of this rather unfavorable impression, the doctors apparently consider the drug worth further trial. It has the obvious advantages of being a drug that is produced synthetically, instead of having to be extracted from a mold, and of being one that can be swallowed like a pill instead of being injected.

It may prove valuable in combination with streptomycin. Tests of this in guinea

pigs are being made. Given by itself to guinea pigs with tuberculosis, PAS had a marked effect in stopping the disease. Only eight of 17 treated animals died of TB, compared with 16 out of 20 untreated ones.

The possibility of PAS becoming a remedy for tuberculosis was discovered by a Swedish scientist, Dr. Jorgen Lehmann. Dr. Guy P. Youmans of Northwestern University Medical School in Chicago confirmed the Swedish results in laboratory tests with mice. Dr. Youmans has also been testing the combination of PAS with streptomycin in mice with tuberculosis. The results were "impressive," he told the Mayo group.

Whether streptomycin, PAS or some still undiscovered and more powerful drug becomes a real cure for the white plague, "the virtual conquest of tuberculosis in America in our lifetime" is seen by Dr. Hinshaw as likely.

He bases this hopeful view on the rapid progress in tuberculosis research, increased financial support for it from the federal government and the American Trudeau Society, improved methods of diagnosis and treatment and the "greatly improved public attitude" which are all developments of the past few years.

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