

GENERAL SCIENCE

Overpopulation With War

Even if there were an H-Bomb war and the populations of the United States and Russia were wiped out, their numbers could be replaced in ten years.

➤ WAR, EVEN a disastrous war fought with hydrogen and atomic bombs, could not be expected to have much effect on the prospect of world overpopulation, Dr. Dudley Kirk of The Population Council, Inc., New York, pointed out.

Even if the entire population of both Russia and the United States should be entirely wiped out in such a conflict, their numbers would be completely replaced in about ten years of normal world population growth, Dr. Kirk said.

The fate of mankind will be decided in Asia, he believes. But he does not base this conclusion on the threat to world peace of the Chinese Communists or the explosive nature of the Formosa situation. It is based on the tremendous growth of Chinese population.

China is now reported to be growing at the rate of 12,000,000 persons each year. Such a tremendous growth would be a serious handicap to economic development

in so crowded a land no matter what kind of political system they must live under.

Looking into the future, the greatest population increase is expected in Asia, although every major region of the earth will probably continue to grow, at least up to 1980.

So the future of mankind may very well hinge on how rapidly the Chinese adopt the small family patterns so widespread elsewhere.

If the Chinese people decide they want small families, the Communist regime is not likely to be able to prevent it, Dr. Kirk points out.

"Future birth rates are not matters that will be decided in the long run by governmental policies," he explains.

"The future trend of the birth rate in the underdeveloped areas, as in the industrial West, will be a matter of choice and action of millions of individuals. These are only within limits amenable to the influence of

public policy calculated to change population trends."

The Communists have failed to prevent reduction of the birth rate in Russia, Dr. Kirk pointed out. Experts from the Soviet Union at the recent World Population Conference in Rome revealed that the present birth rate in the Soviet Union is approximately 24 per thousand population, or slightly less than that in the United States. This represents a drastic decline from the prewar figure of 38 per thousand.

The way in which individual decisions to limit family size can act in opposition to strong cultural traditions is shown in the case of Japan. Once Japan became predominantly urban and industrial, the forces of Oriental love of family and ancestor worship failed to retard the decline of the birth rate.

The specific means used to limit family size may differ from country to country. In Ireland, it is late marriage. In Western Europe, generally, it is birth control. But in Japan it is by abortions, now numbering over one million a year.

The tremendous effect of modern public health practices on population growth is demonstrated in Ceylon. There, systematic spraying with DDT to battle malaria cut the death rate in half in only eight years.

Of equal importance to the limiting of family size in Asia, Dr. Kirk rated the success and speed with which the two-thirds of the world population living in underdeveloped areas are able to achieve the economic and social transformation they are struggling to attain.

Dr. Kirk's report appears in *Eugenics Quarterly* (March).

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MEDICINE

Mushroom Antibiotic Helps Typhoid Patients

➤ AN ANTI-GERM chemical, or antibiotic, from mushrooms is giving "encouraging results" in treatment of typhoid fever patients at Carmichael Medical College Hospital, Calcutta, Dr. S. R. Bose of the college botanical laboratory reported in *Nature* (March 12).

This mushroom antibiotic comes from the common edible mushroom, *Psalliota campestris*, readily available in Calcutta markets during the rainy season, Dr. Bose says. He discovered its anti-germ action in 1952. More recently, Miss Nancy Atkinson, bacteriologist at the University of Adelaide, South Australia, found an anti-germ chemical in another kind of mushroom. (See SNL, Oct. 30, 1954, p. 281.)

The Atkinson antibiotic came from a mushroom called *Psalliota xanthoderma*, which, Dr. Bose says, is also edible but is regarded as somewhat poisonous to some.

The *campestris* mushroom antibiotic has been given to typhoid patients both in the form of a crude extract by mouth and in the form of a concentrate for hypodermic injection into the muscles.

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TRACKS METEORS—This spidery antenna at Stanford University throws a radar net across the sky to detect tiny meteors. The device is expected to provide information useful to radio communications, weather forecasting and astronomy. Dr. Von R. Esbleman, standing in the foreground, directs operation of the antenna.