

AGRICULTURE

# India's Food Output Low

➤ INDIA'S great need is for more food in the face of a rapid increase in population. This is a predominant theme of the Indian Science Congress held at Patna, with scientists from all parts of India in attendance, regardless of political affiliations.

Indian food production could be increased by 30% if scientific methods of agriculture, artificial fertilizers, more irrigation and extermination of insect pests were applied, Prof. B. C. Guha, of Calcutta University, chief government adviser, told the Congress. He declared that India does not get a fair share of the world's food supply.

Manufacture of foodstuffs from the cellulose of wood and farm wastes was urged by several other scientists as a means of attempting to keep the food supply more adequate. Such methods were practiced successfully in Switzerland and Scandinavia during the war and as a result animals were fed on such synthetic foods, providing meat from raw materials that could not be used for human consumption.

Artificial insemination used in breeding Indian cattle promises important improvement in the quality of the herds

for both meat and milk, the veterinary section of the congress was told. In this method one bull of superior breeding can be the father of thousands of calves whose mothers he never sees.

But much opposition to this scientific procedure so successful in other world areas is reported among Indian farmers, because Mahatma Ghandi has made a pronouncement against artificial insemination for cows.

## Plan Rainmaking in India

➤ ARTIFICIAL rain making at high altitudes will be tried in India during prolonged breaks in the monsoon, Dr. S. K. Banerjee, director general of the Indian Observatories, told the congress.

Spraying of clouds with dry ice will have to be done at a height of about 15,000 feet because the freezing level is higher in India than in the United States, where the rain making is done at lower altitudes.

Prof. Manuel Vallarta, Mexican delegate to the congress, advocated using V-2 rockets to investigate the proton origin of cosmic rays.

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CHEMISTRY

# Insecticide List Growing

➤ NOW that the football season is over, and you've memorized the traditionally unpronounceable names of the All-American gridders, it's time to tackle another list of bizarre names. These are the chemical weapons you will hear about in the 1948 war on flies, rats and other pests of the animal kingdom.

DDT and its near-relative insecticide DDD are easy names because they are abbreviations for long chemical terms. But maybe "GIX" sounds like a breakfast food to you. Actually it is another chemical relative of DDT. GIX was claimed to be superior to DDT for farm use by the Germans, according to a report issued by the Office of Technical Services of the Department of Commerce.

U. S. Department of Agriculture scientists do not agree with the Germans. GIX uses fluorobenzene in place of monochlorobenzene of DDT and is

more expensive. And GIX is not as deadly to insects.

Other newly-added names to the growing list of chemical insect foes include "Parathion" and "Methoxychlor." Both of these are still under experiment. Parathion, which is also called thiophos 3422 or just plain 3422, may be important in orchards where mites survive DDT. Methoxychlor is the proposed name for another DDT-related chemical which boasts some promise against insects.

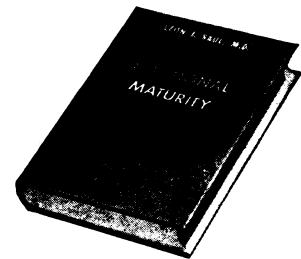
If you want to shop around in the laboratory for other insect-discouraging chemicals, here are a few of the newer ones which scientists are working with: chlordane, toxaphene, benzene hexachloride, piperonyl cyclohexenone, piperonyl butoxide and tetraethyl pyrophosphate.

Antu sounds like a place we chased the Japs out of in World War II. Actually it is a chemical to kill rats. Another death-on-rats is known as 1080.

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