TECHNOLOGY

Russia Stresses Aid

The Near and Far East have become the prime targets for the Communists' technological assistance and aid propaganda, which was increased substantially in 1954.

➤ RUSSIA'S TECHNOLOGICAL and economic propaganda warfare against the West was greatly intensified during 1954, Dr. D. A. Fitzgerald, deputy director for operations of the U. S. Foreign Operations Administration, told SCIENCE SERVICE.

The Soviet "bloc" increased their offers of economic and technological assistance to many nations throughout the world, but particularly to the underdeveloped countries of the Near, Middle and Far East, Dr. Fitzgerald said.

Commenting on what could be expected in 1955, the foreign operations expert stated that "it is possible that there will be a new party line, but prior to the change in the Russian government I would have expected that the Soviet Union would follow through with intensifying their technological propaganda warfare.

"I believe," Dr. Fitzgerald said, "that the step-up of Soviet action in this field is proof of the effectiveness of the United States and United Nations programs of technical cooperation and economic assistance with the underdeveloped areas.

"Our deeds have so undermined the empty promises of their propaganda that they are now forced into making offers of action," he stated.

Economic and technological warfare during 1954 was mostly in the form of more offers of capital assistance and technical manpower assistance, as well as an increase in the number of fairs and trade agreements entered into by the Soviet Union and its satellites.

During 1954 the Soviet bloc offered capital assistance to five nations. They offered to build a cement plant in Iceland, a sugar refinery in Indonesia, a steel plant in India, and grain storage facilities, farm milling facilities and paving of the streets of Kabul in Afghanistan. They also offered capital assistance to a South American country.

India, it is reported, has accepted in principle the offer for the construction of a steel plant, and Afghanistan has had some grain storage facilities constructed under this set-up. But, the other nations, as far as known, have not accepted capital assistance.

Offers to supply technicians, engineers and scientists, Dr. Fitzgerald said, were made to about 16 countries. There seems to be no clear cut pattern as to what type of assistance is offered. It is offered by the Russians mostly on a basis of covering any or all fields.

It is significant that all but two of the 16 technical offers were made to the countries in the area known as the "arc," which stretches from Iran in the Near East to Japan and Indonesia in the Far East. This area comprising 840,000,000 people has become the prime target for Russia's technological propaganda machine.

The trade fairs in which the Soviet bloc participated in 1952 numbered only 25. In 1954, however, their participation almost doubled and they took part in 46 fairs.

In addition to the fairs and offers of assistance, the Soviet bloc successfully concluded 29 trade agreements in 1954 with nations in Europe, Asia, Africa and South America.

Just how much in dollars Russia has subsidized its technological propaganda machine is not known.

The United States is expected to spend approximately $130,000,000 in providing technical assistance throughout the free world during the current fiscal year. More than half of this money, $70,000,000, will be used in the same Near and Far East area in which the Soviets are concentrating their efforts.

The change in area emphasis away from Europe and towards the underdeveloped areas of the Near and Far East has been occurring gradually over the past few years. This area is expected to become more of a focal point for increased United States technical aid in the future.

At the same time, the United States is jumping into the trade fair department. In 1954, American industrial exhibits were officially represented in only one fair, at Bangkok, Thailand. This year, under a new program of participation in international fairs being set up by the Department of Commerce, the United States will be represented in at least 25 fairs throughout the world.

Science News Letter, March 5, 1955

BIOLOGY

Chemical for Eternal Growth Is Isolated

➤ PURE CRYSTALS of a chemical which makes cells divide and which, theoretically, could be changed to stop cancer are announced by scientists in the botany and biochemistry departments of the University of Wisconsin.

The crystals seem to be an eternal growth chemical. When added to culture media for plant cells that are long past the growing period, the cells divide and new cells continue to be formed indefinitely. The first signs of growth usually show up within three to five days.

For this rejuvenated growth to be continuous, the cells must also have the plant hormone, auxin, which makes the cells elongate.

The eternal growth chemical which makes the cells divide has been named kinetin, pronounced kine-uh-tin. Once its chemical structure has been worked out, the scientists hope to create a slightly altered kinetin that will block the natural kinetin in rapidly dividing cells such as cancers. This might lead to a chemical for stopping cancers.

Kinetin was discovered accidentally when the scientists used a four-year-old bottle of DNA in some work on yeast extracts. DNA is desoxyribonucleic acid, found in the nucleus of cells.

The molecular weight of kinetin is 215 and the molecule contains 10 atoms of carbon, nine of hydrogen, five of nitrogen and one of oxygen.

It was discovered by Carlos Miller, Prof. Folke Skoog, Malcolm von Saltza and Prof. F. M. Strong with the support of the American Cancer Society, the Wisconsin Alumni Research Foundation and the National Science Foundation.

Science News Letter, March 5, 1955

GROWTH CHEMICAL — Yields of pure crystalline kinetin, a complex compound that causes cell division and growth, are displayed by University of Wisconsin scientists who produced the substance. Seated are (left to right) Profs. Folke Skoog and F. M. Strong. Malcolm von Saltza and Carlos Miller stand behind them.

• RADIO

Saturday, March 12, 1955, 5:00-5:15 P.M. EST

"Adventures in Science," with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Mr. Donald Mason, technical director of the Freeport Sulphur Company, New York, will discuss "Sulphur."