

NUTRITION

Attack on Malnutrition

➤ TO CUT IN HALF the mortality rate of Latin American children under five years of age who die of undernourishment is one of the goals of a nutrition meeting in Washington, D. C.

Consultants from the United States, Brazil, Costa Rica, Mexico and Guatemala are now developing plans for an Alliance for Progress program against malnutrition. They met at the Pan American Health Organization headquarters.

Contrasted with the United States death rate of young children from undernourishment, which was only 0.4 per 100,000 during 1959-60, many Latin American countries have a very high mortality rate.

Highest on the list is El Salvador, with 143.4 deaths per 100,000, followed by Colombia with 124.7, Mexico, 124, Guatemala, 78.4, and Venezuela, 63.2 per 100,000.

The experts are considering the development of new protein foods such as INCAP-ARINA, composed of corn meal or other similar locally grown base food, sorghum, cottonseed flour and yeast.

Guatemala in the past six months has produced 800,000 bags, and the Institute of Nutrition for Central America and Panama (INCAP) has appointed a consultant to advise governments that seek aid regarding the development of this and other mixtures.

Authorization for producing INCAP-ARINA has been given to commercial firms in El Salvador, Nicaragua, Honduras, Panama, Mexico and Colombia.

A trial project to determine the acceptability of fish flour will be made this year

in Chile and Peru by the Food and Agricultural Organization in cooperation with the Pan American Health Organization and other agencies. Argentina also is developing a vegetable mixture with 40% peanut flour as the main component.

Dr. Nevin Scrimshaw of the Massachusetts Institute of Technology, Cambridge, formerly director of INCAP and now consultant director, told SCIENCE SERVICE that malnutrition affects not only the health of Latin America but its social, economic and political aspects.

Other projects for the health of Latin America to be sponsored within the next ten years include salt iodization programs to reduce the prevalence of goiter.

Training of approximately 400 leaders outside their own countries will be needed in the next ten years to bring nutritional work to the necessary level of public health. Fellowships from the Pan American Health Organization and other agencies are being granted to Latin Americans to provide nutrition training.

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MEDICINE

Cancer Destroys Itself?

➤ CANCER may carry the seeds of its own destruction, new clinical tests indicate.

Twenty advanced cancer patients at the Veterans Administration Hospital, Dallas, Tex., have produced antibodies against their own cancers, apparently as a result of vac-

BOTANY

"Cork" of Silicone Rubber Aids Plant Growth Study

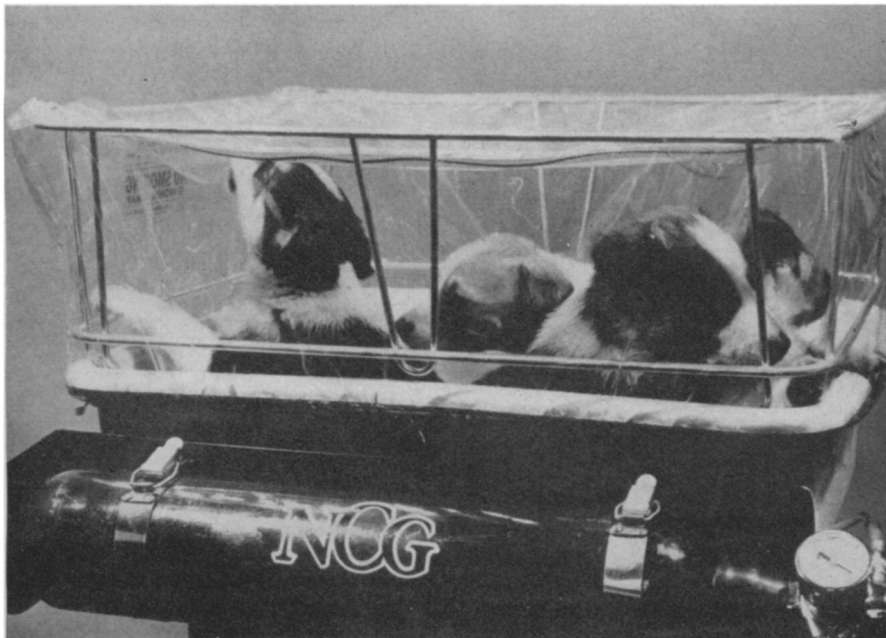
➤ SCIENTISTS are now using a liquid silicone rubber developed by General Electric, Waterford, Conn., to form a custom-made "cork" over the sterilized medium in which experimental plants are grown.

The silicone rubber, RTV-11, is poured on the surface of the medium around the stem of the plant and allowed to set, thus forming the custom-made "cork" that separates the sterile roots from the atmosphere surrounding the non-sterile upper plant part.

Researchers have been able to isolate, and maintain sterile, roots of a variety of plants (including bananas), from which excreted materials are periodically collected for analysis. Respiration is also continuously measured during growth and development of the plants.

The respiration of plant roots and the nature of organic compounds excreted from roots may aid scientists in determining why some plant species are resistant and others susceptible to soil-borne root-infecting plant pathogens.

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"PET TENT" PROVIDES OXYGEN—A low-cost portable oxygen tent for small animals has been designed by the natural gas cylinder division of Chemetron Corporation, Chicago. It consists of a plastic pan and zippered canopy that weighs 15 pounds. It is used in treating respiratory distress and care of newborn litters.

cine containing their own cancer cells.

Although no dramatic improvement or lengthened survival resulted from the treatment, increased resistance and temporary improvement were reported in some of the patients.

Blood analysis of 20 of the 32 patients who were vaccinated showed a significant reaction, VA scientists said, by revealing the presence of a large number of antibodies capable of reacting with the patients' cancer cells.

Two other tests showed that the patients produce antibodies against their own cancers.

1. Cancer cells were removed from a patient, broken up into an emulsion and reinjected as a vaccine into tissue away from the patient's tumor. Cells later removed from the cancer tissue and put under the microscope appeared dead or dying as a result of antibodies stimulated by the vaccine.

2. Patients injected under their noncancerous skin with fractions of their tumors showed an immediate reaction in the form of welts or weals.

The results have convinced the scientists, whose research was supported by the American Cancer Society, that it is possible, theoretically, to raise the resistance of some patients by giving them vaccines containing their own tumor cells. An accompanying substance called an adjuvant stimulated the reaction.

Drs. Russell H. Wilson, E. H. Byers and A. C. Schram, working with J. W. Finney, reported the study.

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