

fertilizers, and pesticides to enhance food production for an ever-increasing population. Guillermo P. Sales (director general, Council for Non-Renewable Resources of Mexico) will present this and other basic problems of civili-

zation in the introduction of the central theme on "Earth Sciences and Development."

GUILLERMO P. SALAS  
*Council for Non-Renewable Resources of Mexico*

## 2-3 July

### **Aerobiology of Diseases, Pests, and Allergens in the Western Hemisphere**

Airborne materials such as viruses, bacteria, fungus spores, algae, pollen, insects, and pollutants cause considerable damage to animal, plant, and human systems in the Americas and throughout the world. Potential disasters can be averted if an understanding is obtained of the sources, atmospheric transport, deposition, and impact of these materials. A symposium on "Aerobiology of Diseases, Pests, and Allergens in the Western Hemisphere" seeks to examine these aspects for certain problems of the Western Hemisphere.

The symposium arrangers are: Lucas Calpouzos (Department of Plant and Soil Sciences, University of Idaho) and Armando Campos (Centro Internacional de Mejoramiento de Maiz y Trigo, México, D.F.). The three ½-day sessions making up the symposium are (i) "Aerobiology of plant diseases and pests"; (ii) "Aerobiology of allergens"; and (iii) "Aerobiology of human and animal diseases." An attempt was made in the program formulation to obtain a balance of speakers from North, Central, and South America and to focus on several important problems—for example, the coffee rust, which is spreading rapidly in Brazil. It has the potential to spread in the atmosphere to other Latin American countries where it would cause grave economic problems.

Five papers will be presented in session I: "Aerobiology in the Western Hemisphere" (Robert L. Edmonds, Director, U.S. International Biological Program, University of Michigan); "Aerial transport of peanut rust spores" (Eugene P. Van Arsdel, Texas A & M University); "Aerial transport of coffee rust spores in Brazil" (Joao A. Martinez, Instituto Biologico, São Paulo); "Aerobiology of wheat rusts in the Western Hemisphere" (S. Rajaram, CIMMYT, Mexico City); and "Aerobiology of pests in the Western Hemisphere" (Robert I. Gara, University of Washington).

Four papers will be presented in ses-

sion II: "Volumetric methods in the study of exposure of fungus spores (William R. Solomon, University of Michigan Medical School); "Allergenic problems associated with the coffee and castor bean industries" (Annelise Strauss, Instituto Biologico, São Paulo, Brazil); "Airborne allergens in a tropical locale" (Carlos Benaim-Pinto, Caracas, Venezuela); and "Aspects of hypersensitivity pneumonitis" (John E. Salvaggio, Louisiana State University Medical School).

## 29-30 June

### **Anthropology Applied to Health Programs**

This symposium (29-30 June) directs itself to the application of anthropological knowledge to problems of medical care and preventive health among rural peoples of Latin America. In all societies of Latin America, the population is comprised of culturally diverse segments. Geographic or social isolation has contributed to these culturally distinctive segments being characterized by unique biological adaptations to their physical environs. Together, cultural and biological distinctiveness, social and geographic isolation, have brought anthropologists and health personnel together in unique endeavors to provide effective health services for rural communities of this region.

The symposium will begin with a discussion on the growth characteristics of pre-school and school-age children in rural Mexican villages (Robert Malina, University of Texas, and Johanna Faulhaber, National University of Mexico). Panelists will comment on the way in which such growth indices and research contribute to planning and implementation of ever better health programs in rural areas.

The second part of the symposium will consider the systems of logic characteristic of, on the one hand, the Western-trained physician and, on the other hand, the lay healer who resides

The final session is planned for four papers on the following topics: "Aerobiological aspects of foot and mouth disease" (M. Fernandez, Pan American Foot and Mouth Disease Center, Rio de Janeiro, Brazil); "Airborne pathogens of humans" (M. T. Hatch, Naval Biomedical Research Laboratory, University of California); "Airborne pesticide particulates" (R. J. Heckly and M. A. Chatigny, Naval Biomedical Research Laboratory, University of California); and "Remote sensing of aerobiological phenomena in human and animal health" (C. M. Barnes, Health Application Office, National Aeronautics and Space Administration).

This interdisciplinary symposium is sponsored by the U.S. Aerobiology Program of the International Biological Program (IBP), the IBP Aerobiology Theme, and the American Phytopathological Society.

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among the villagers. Comparison of these two logical and systematic understandings of illness and the implications of these differences for health programs will be presented by Horacio Fabrega and Jose Luis Diaz. Fabrega will compare logical systems of physicians and curers and discuss the manner in which a better understanding of differences and similarities of these two systems contributes to implementation of health programs. Diaz will discuss medicinal plants available to the native Mexican healers and implications of this understanding for modern health planners.

The manner in which Mexico has attempted in the past to have its health and other forms of social assistance services respond to the special characteristics and needs of rural villagers will be discussed and evaluated by Luis Vargas, Garcia Manzanedo, and Fernando Martinez Cortes. Rolando Collado will discuss efforts to sensitize medical students in Guatemala to the logic and needs of Indian villagers by training medical students in one such village.

Co-arrangers of this symposium are Arthur J. Rubel (University of Notre Dame, South Bend, Indiana) and Luis Vargas (Mexico).

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