

Gathered at last week's annual meeting in Chicago of the American Association for the Advancement of Science

HERBICIDES

Vietnam defoliation

Making an announcement many scientists at the AAAS meeting felt was timed to coincide with its own first report of a study of defoliation in Vietnam, the White House released on Dec. 26 a four-point plan to reduce use of herbicides in that country. Defense Secretary Melvin Laird reported to the President that there would be an "orderly yet rapid" phaseout of herbicide operations.

Herbert Scoville Jr., director of the Arms Control Program of the Carnegie Endowment for International Peace, said that despite the White House announcement there were still some questions the President should be asked. Immediate cessation of all defoliation operations, he believes, should be both orderly and rapid, and superior to any phaseout program that will allow continued damage to the ecology of Vietnam.

The AAAS defoliation study found that a fifth of the 1.2 million acres of mangrove forest in South Vietnam had been destroyed and that vegetation was not returning to those areas.

NEUROCHEMISTRY

Pollutant damage to unborn children

Pollutants, by upsetting normal brain chemistry, may lead to behavioral changes in unborn children by inducing either aggressiveness or docility. Dr. Alexander C. Karczmar, chairman of pharmacology at Loyola University Medical Center in Chicago, reported experiments in which pregnant mice were exposed to low dosages of DDT or sulfur. After birth, mice whose mothers had been exposed to DDT were found to be less aggressive than normal mice. Those whose mothers were contaminated by sulfur, preliminary data indicate, were significantly more aggressive than normal mice. "I am sure," says Dr. Karczmar, "that most pollutants eventually will be found to have some kind of effect on the behavior of children."

In a related study, the pharmacologist observed that hormones can also affect the brain chemistry of the developing fetus, leading to behavioral changes. Tests with birth control pills containing progesterone showed that when it was given to mice early in pregnancy, it affected the fetus, leading to nonaggressive offspring. When administered to mice late in pregnancy, it induced an opposite effect.

ECOLOGY

The threat of mercury pollution

Mercury pollution (SN: 1/2, p. 7), almost unheard of two years ago, may be the most serious environmental threat facing man, in the opinion of Dr. Barry Commoner. In addition to its presence in fish (SN: 11/7, p. 366), mercury is probably present in many other foods, believes Dr. Commoner, who criticized the Food and Drug Administration for not monitoring foods for

content. Dr. Commoner is director of the Center for Biology of Natural Systems at Washington University in St. Louis.

Adding to the threat posed by mercury in foods is its presence in the air. Dr. Commoner and a colleague, Kevin Shea, revealed that they had found particularly high levels of mercury in the air over incinerators burning paper, which is treated with mercury, and from plants using coal and fuel oil. Last month, Dr. Commoner said, a helicopter survey of mercury contamination in the air was carried out over Springfield, Peoria and Chicago, Ill., and over the St. Louis area. Municipal incinerators were found to be spewing the greatest amounts of mercury in the area surveyed.

SOCIOLOGY

Frustrations among Catholic priests

Roman Catholic priests are now a two-culture society. Those over 50 years of age constitute a relatively content group, and those under 50 a group of frustrated, discontented men. According to a study by three sociologists, "personal loneliness, work frustration, dissatisfaction with church leadership and a desire to marry" may lead to an exodus of young Catholic clergy. The study, reported at a session organized by the Society for the Scientific Study of Religion, was conducted by John P. Koval of Notre Dame University, Richard W. Bell, a Chicago priest at Loyola University and Edgar W. Mills, executive director of the ministry study board of the National Council of Churches.

Comparing Roman Catholic and Protestant clergymen, they noted a relatively low and uncomplicated stress profile among the latter, observing that low pay was the primary factor in leading them to consider resigning. Roman Catholic priests, by contrast, showed sharp stress profiles. Chief among their complaints are inadequate church leadership, unresponsiveness of the church to social issues and work frustration. One in five surveyed cited "poor spiritual life" as a serious problem. One in ten indicated he is considering resigning in order to marry.

DISARMAMENT

Limit defensive missiles

The Federation of American Scientists, a nonpartisan organization of 1,800 scientists and engineers, proposes that if the United States and the Soviet Union are unable to agree on limitations of offensive weapons, they should at least adopt a limit on construction of the antiballistic missile systems.

The two nations are currently discussing arms limitations at the strategic arms limitations talks in Helsinki. At a AAAS symposium, the federation released a report prepared by its strategic weapons issues committee. "A delay in limiting ABM's until all of the details of offensive limitations can be satisfactorily negotiated," it concluded, "might make impossible ever achieving an ABM limitation."