News of Science

Foot-and-Mouth Virus Photographed

H. L. Bachrach and S. S. Breese, Jr., of the Plum Island Animal Disease Laboratory of the U.S. Department of Agriculture, report that they have purified, isolated, and photographed the foot-and-mouth disease virus. Their first electron micrographs of the virus show that it is spherical in shape and about one-millionth of an inch in diameter. This is the smallest of any of the viruses affecting animals—even smaller than poliovirus. These new findings about the physical makeup of foot-and-mouth disease virus are expected to speed research on the development of new and effective means of combating the disease, which has great economic importance to livestock production throughout most of the world.

Educational TV and IGY

Five new series of live television programs will be broadcast over the National Educational TV network beginning 28 Oct., with one of the series to be devoted to the International Geophysical Year. Inauguration of the new programs will constitute the second part of the cooperative effort by the Educational Television and Radio Center, Ann Arbor, Mich., and the National Broadcasting Company to bring national live programs exclusively to the noncommercial educational television stations.

In addition to the IGY programs, other series will be in the areas of American resources, current affairs, and the creative arts. The American resources series will explore the ways in which natural resources condition a population's way of life. Each of the series will include ten programs broadcast over a 10-week period on weekday nights at 6 P.M., Eastern standard time.

The IGY series will be directed to a general audience, but special attention will be given to making it meaningful to young people. Eminent scientists will appear, and close working relationships have been established with the U.S. National Committee for the International Geophysical Year. Visual resources will be drawn from film cleared for this use by the IGY, from remote coverage where activity is particularly important, and from specially prepared models and devices.

WHO Approves Fluoridation

The World Health Organization has reported that the use of fluoridated drinking water to prevent tooth decay is safe, effective, and practical. After having studied hundreds of fluoridation programs in 17 countries, a WHO committee has announced that the use of fluorine in drinking water supplies is approved by responsible public-health officials throughout the world.

In the United States 32 million people in more than 1500 communities are drinking fluoridated water. Sixteen other countries have begun similar programs.

The WHO committee report emphasized that results in all nations using fluoridated drinking water show remarkable uniformity. Dental caries in the permanent teeth of children decreased by about 60 percent, while in children's primary teeth the reductions ranged from 50 to 60 percent.

No other public-health procedure has had, during the initial stages of its application, such a background of study in terms of both time and expense, the report said. Without qualification or caution, WHO recommends the use of fluoridated drinking water wherever and whenever possible. It was suggested that treated water contain 1 part of fluorine for every 1 million parts of water.

Scientific Languages and Britain's New Secondary Technical Schools

Russian was recently selected as the second most important scientific language by the Hatfield School, one of England's new secondary technical schools. Further, at Hatfield German, rather than French, is now the first language for students receiving extensive science instruction.

Hatfield School is only 3 years old, for the technical schools are the newest of the three-part secondary-school system in Britain. Secondary education includes youngsters from the ages of 11 to 15. The oldest of the secondary schools are the grammar schools, which are college preparatory and have a program that is strong in the classics. Competitive examinations select the top 20 percent of the 11-year-olds who enter the grammar schools.

The Education Act of 1944 led to the establishment of the state-supported secondary technical schools. Like the grammar schools, these are selective in their enrollment; however, they differ in that they emphasize science rather than the classics, and their curricula bear a relationship to the industry or commerce of the particular region in which they are located.

The development of the technical school is coupled with the growing importance of technicians in English industry. Like the United States, Britain has a grave shortage of engineers.

The graduates of the technical schools usually go to work after completing their secondary education and their military service. But reaching the legal age for leaving school, now 15 but in the process of being raised to 16, does not mean the end of education for most of them. Many take further education 1 day a week at the county colleges on time released by their employers. The large enrollment in these free schools is closely related to England's efforts to raise the compulsory school age to 16 as soon as staff and facilities are sufficiently increased.

Industry Group Considers Formation of Nuclear Center

Four major United States companies have established a group of scientists and economists to study the technical and economic feasibility of building and operating a nuclear testing center with private capital. Announcement of this Nuclear Test Center Study Group was made jointly by the heads of the cooperating companies: ACF Industries, Inc., Kaiser Engineers, Lockheed Aircraft Corporation, and Phillips Petroleum Company.

The concept of such a center conforms with the desire of the Atomic Energy Commission and the Joint Committee on Atomic Energy to hasten the time when nuclear testing facilities will be built and operated with private capital rather than with Government funds. The services of the potential test center would be available to Government agencies, educational institutions, and both domestic and foreign industrial enterprises.

Among the many facilities that would be included in the center are a very high