Ecology Notes

AGRICULTURE

Herbicide Increases Plant Proteins

Light applications of a chemical weed killer have been found to increase the amount of protein in several crops 25 to 80 percent.

Dr. S. K. Ries of Michigan State University foresees application of his methods in protein-short lands. He treated rye, peas and other crops with tiny amounts of the herbicide simazine.

"Our laboratory and greenhouse experiments indicated that simazine increased the plant's ability to synthesize protein from its carbohydrates," he says. "The herbicide increases the activity of the enzyme nitrate reductase which reduces nitrate to nitrite, a form of nitrogen which is readily available for the synthesis of amino acids. Amino acids are then synthesized into protein."

ENTOMOLOGY

New Insect Pest Found in Florida

The Oriental wood borer, a serious pest in the Far East, has been discovered living in Florida.

Specimens collected in oak and mahogany boards in Fort Lauderdale have proved to be Heterobostrychus aequalis, often intercepted during quarantine in packing boxes from the east, but never before established in this country.

CHEMICAL ENGINEERING

British Develop Synthetic Pyrethrum

A new insecticide—synthetic pyrethrum—has been developed at the British Government's Rothamsted Experimental Station.

A white daisy-like flower, Chrysanthemum cinerariaefolium, is the source of the most important natural insecticide, pyrethrum. The plant is now widely cultivated in East Africa and also in South America. The high cost and unreliable supply of the natural product have led to many attempts to prepare synthetic analogues which mimic its valuable properties.

The most active compound so far discovered is 5-benzyl-3-furylmethyl chrysanthemate. This compound is not only the most active synthetic pyrethrin analogue known against houseflies, but appears to be the most potent known insecticide against certain species of mosquito. It is about twenty times as active against houseflies as natural pyrethrins.

MAMMOLOGY

Albino Gorilla Found in Rio Muni

History's first known white gorilla has been found in Rio Muni on Africa's West Coast. Believed to be about two years old, the albino, "Little Snowflake," is now living with the family of a zoo veterinarian in Barcelona, Spain, The National Geographic Society reports.

Earth and Environment

OCEANOGRAPHY

Red Sea Brine Pool

A third area of hot, highly saline water has been discovered at the bottom of the Red Sea. It is in the rift valley where two other such areas have been found.

The new brine pool is west of Mecca, between the Atlantis II and Discovery Deeps, the two previously known areas, at a maximum depth of 2,066 meters. It is about 2.6 kilometers long and .7 km. wide, according to data collected by the research vessel Chain.

A report on the new brine pool was published in the February 18 Nature by D. A. Ross and J. M. Hunt of the Woods Hole Oceanographic Institution.

POLLUTION

Fiber Filters Finer

A simple felted fiber filter can clean all of the dust and nearly all the acid mist out of industrial exhausts—something scrubbing towers and electrostatic precipitators do not do.

The irrigated fiber filter process was developed by N. Morash, M. Krouse and W. P. Vosseler of the Titanium Division of the National Lead Company.

In tests, pads of various fibers trapped all of the titanium dioxide dust and all but .09 grains per cubic foot of sulfuric acid mist in exhaust gases of a titanium dioxide pigment plant. The dust and acid particles are then washed out of the pad in a continuous process.

OCEANOGRAPHY

Undersea Communities

Ocean bottom communities in which thousands of men could live and work in a shirtsleeve environment can be built today—in fact some have been in existence for many decades.

While present-day underseas installations are all in tunnels burrowed from shore out under the continental shelves, they could be dug directly in the ocean floor.

Such sub-ocean tunnels could be used for oil well drilling or mining, Carl F. Austin, a Naval Ordnance Test Station research geologist, believes.

He described the possibilities to the American Institute of Mining, Matallurgical and Petroleum Engineers meeting last week in Los Angeles.

PUBLIC POLICY

Advice for ESSA

A joint National Academy of Sciences-National Academy of Engineering committee has been appointed to review programs of the Environmental Science Services Administration.

The 19-man committee will check science, engineering and service programs at ESSA for their content and relevance to the agency's objectives. Dr. Verner E. Suomi of the University of Wisconsin is committee chairman. Kent P. Howard of the National Research Council is executive secretary.