GENERAL SCIENCE

Try to Restore Funds

Scientists trying to figure out method of teaching Senators need for uncovering nature's secrets. Part of attempt to restore cut in National Science Foundation funds.

➤ THE NATION'S scientists are trying to figure out a way to make Congressmen aware of the need of discovering some of nature's secrets. It is this lack of awareness, they believe, which has resulted in a 98 per cent cut by the House in funds for the National Science Foundation.

If the Senate should sustain that cut, scientists think, the nation may be headed for a serious shortage in two fundamental resources: basic scientific knowledge and trained scientific manpower.

Scientists blame this Congressional unawareness partly on themselves. Quick to admit a congressman's competence in his own field of politics, the scientists are beginning to think that, with a little political know-how on their part, they might have convinced the House of the necessity to the nation's welfare of the National Science Foundation program.

Now they must try to convince the Senate that it is dangerous to the nation's safety to spend so large a proportion of the research dollar in using up our stock of fundamental knowledge and so little in replenishing that stock.

The A-bomb, they point out, began in the brain of a man who first said: "E equals mc^2." This was Albert Einstein and what he was saying was that matter is the same as energy. Other scientists took that knowledge and found out how to convert one sort of matter, called uranium, into the energy of the A-bomb explosion.

Such formulas might be called the "horseshoe nails" of present day wars. For lack of this kind of horseshoe nail, and the funds to construct it, we may lose the next war, scientists believe.

Today, they say, knowledge is needed to give us the secret of the way a green leaf or a blade of grass uses the energy of the sun. It will probably be needed sooner than the Congressmen think.

We use the energy of the sun when we burn coal or oil to run our factories and our machines of war. We are using this stored energy prodigiously and one of these days we may run out. We are just beginning to learn how to use the energy stored in the atom, by converting it directly from matter to energy.

In the years to come we may have to depend more directly on the energy of the sun for our very existence and for our defense against our enemies. This is the sort of research for which the Science Foundation was designed.

We also need the men and women to carry on this research. We need to train more scientists, we need to find ways of discovering scientific talent in the young, and then developing it.

The National Science Foundation asked Congress for $8,000,000 to make a beginning in closing up some of the gaps in our scientific knowledge and for $5,000,000 to train more badly needed scientists. The House turned the Foundation down. Scientists hope they can find a way to convince the Senate that this is one cut in funds which will turn out to be poor economy.

Science News Letter, September 15, 1951

PLANT PATHOLOGY

Banana Antibiotic Gives Chemical to Fight Fungus

➤ SOME BANANA plants grow their own antibiotic "factories" with which to fight off disease germs. A group of British and West Indian scientists have developed from this discovery a new chemical preventing damage from fungus.

Some banana plants are resistant to the highly destructive Panama-disease. They have in their root systems a strain of actinomycetes, which produces streptomycin-like chemicals, deadly to the Fusarium oxysporum cubense germ, the cause of Panama-disease.

The work was done through the collaboration of the newly founded University College of the West Indies and the Colonial Microbiological Research Institute.

The actinomycete responsible for protecting the banana plants has also been isolated from Jamaican soil and cultured in the laboratory. It gives a number of pigmented strains and, so far, a powerful fungicide agent, musarin, has been isolated from the red strain, while an antibiotic highly active against gram-positive bacteria, monamycin, has been extracted from the green strain.

Science News Letter, September 15, 1951