

fully described by Mansfield and Long in *Bulletin* 3401 of the University of Texas, and by H. I. Smith, of the U. S. Geological Survey, and in an article on "Potash in the Permian Salt Basin" in the *Journal of Industrial and Engineering Chemistry*, Vol. 30, page 854.

Dr. Dabney interested Senator Morris Sheppard and Representative Ganner in the subject and a bill authorizing \$2,500,000 for surveys passed the Senate. The House Committee was ready to recommend a similar bill, but the Bureau of the Budget advised that the program was not in accord with the program of the President, so nothing further was done. What was accomplished was done with meager funds available from the U. S. Geological Survey and the State of Texas.

I am calling attention to these facts so that due credit may be accorded to these pioneer workers.

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"CHEMICAL" SEED TREATMENTS

AN item in SCIENCE-SUPPLEMENT of January 29, 1943, indicates that chemical treatment of seed offers little hope for increasing crop yields. Although the following context of the item makes it sufficiently clear to those familiar with the various types and purposes of seed treatment that treatment with growth-regulatory substances is in question, this item and others constantly appearing in the press indicate the need for more explicit reference to seed treatment if an important wartime contribution of science is not to suffer.

Several types of chemical seed treatments with several purposes are in common use or experimental stages to-day. Seeds may be treated with disinfectant chemicals to rid their surfaces of the organisms of disease and furnish chemical protection against such organisms in the soil; they may be treated with corrosive chemicals to alter the permeability of the seed coats and facilitate germination, a common practice in tree propagation; they may be treated with rodent-repelling chemicals as kerosene, turpentine or creosote; they may be chemically treated in the very doubtful, but commercially exploited, hope of thus imparting insect resistance to the resulting plants; they may be treated with growth-promoting substances in the expectation of thus increasing growth and yields; and leguminous seed are commonly treated with dusts con-

taining nodule bacteria for increasing nitrogen fixation. It is important that these types of treatment be clearly differentiated in publicity.

Disinfectant seed treatments are of well-established value in the production of many crops and represent one of the most useful devices for increasing wartime production. It would indeed be unfortunate if the efforts of crop scientists and agricultural extension specialists to promote further adoption of them were to be thwarted by public statements, however correct, that chemical seed treatments (of certain other types) are useless or harmful.

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MINERAL DEPOSITS

MAY I make a suggestion that, if followed, may prove extremely valuable to our country and at the same time increase the contributions made by science to the war effort?

Vast quantities of ores and minerals are necessary to carry on the war. Commercial development after we win this war will likewise require mineral products in quantities that we may find difficult to supply.

Men in the Armed Forces will probably travel very nearly all over the world before the present war is finished. Would it not be wise, therefore, to give all officers of the Army and Marine Corps a short but intensive course in the recognition or identification of the ores of the more important metals. Thus equipped, they would constitute searching parties or prospectors, some of whom certainly might discover mineral deposits that would prove valuable or even vital to our cause. If all members of our Army and Marine Corps who will be going afield could be given this training, instead of just the officers, it should obviously increase our chances of finding these much-needed minerals.

Colleges and universities that teach geology, mineralogy, etc., could give such training, as could most commercial geologists and others who are familiar with rocks and minerals. If it is not practicable to give this training at the colleges and universities, then training centers manned by competent instructors could be set up in connection with already established Army and Marine Corps camps.

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QUOTATIONS

THE RETIREMENT OF PROFESSOR RAYMOND C. ARCHIBALD

Few scholars have a larger circle of personal friends

among mathematicians on both sides of the Atlantic than Professor Raymond C. Archibald, whose impending retirement is announced from Brown Uni-