

algae replaces mosses. Few observations have as yet been recorded for subhumid and humid regions; but because the more luxuriant vegetation excludes most of the sunlight from the pebbles, cryptogamous plants probably are less abundant.

Further study of the occurrence and the distribution of peat beneath pebbles and of the plants contributing to its formation is indicated. Specific names of the plants have not yet been determined.

The term "pebble peat" is suggested for the phenomenon described. As yet no mention of the phenomenon has been found in the literature.

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BIOLOGICAL SPECIFICITY OF FOLIC ACID

NIELSEN and Elvehjem¹ and Martin² have demonstrated the counteracting effect of folic acid concentrates on growth inhibition of rats due to succinylsulfathiazole and sulfaguanidine. These findings, indicating synthesis of folic acid by the intestinal bacteria, are in accord with the findings of Mitchell and Isbell³ on synthesis of this substance by rat intestinal flora.

Recent investigation of folic acid concentrates in our laboratory has indicated that they can not be regarded as biologically pure, unless this fact has been demonstrated. Two significant impurities may be present, namely, xanthopterin and *p*-aminobenzoic acid. The amount of xanthopterin present may be several per cent., even in the most potent preparation yet tested on animals.¹ This preparation, which was furnished by our laboratory to Nielsen and Elvehjem (designated 15,000 times as potent as solublized liver), has since been found to contain also 1 per cent. of *p*-aminobenzoic acid.

Since Totter and Day⁴ have found that xanthopterin is able to counteract the effect of succinylsulfathiazole on rats, its presence in folic acid concentrates can not safely be neglected. The amount of *p*-aminobenzoic acid present in the potent preparation referred to above is probably not enough to seriously affect the results, but the absence of significant amounts of *p*-aminobenzoic in many folic acid concentrates can not be assumed.

We wish to make clear that the biological identity of folic acid is not questioned by these findings, since in the microbiological test for folic acid using Strept.

¹ E. Nielsen and C. A. Elvehjem, *Jour. Biol. Chem.*, 145: 713, 1942.

² G. J. Martin, *Proc. Soc. Exp. Biol. and Med.*, 51: 353, 1942.

³ H. K. Mitchell and E. R. Isbell, Univ. of Texas Publication No. 4237, 125, 1942.

⁴ J. R. Totter and P. L. Day, *Jour. Biol. Chem.*, 147: 257, 1943.

lactis R both xanthopterin and *p*-aminobenzoic acid are inactive.

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THE KILGORE SENATE BILL

IN the April 23rd issue of SCIENCE, Elliott and Grundfest, the latter national secretary of the American Association of Scientific Workers, highly endorsed the Kilgore Senate Bill 702. They believe with the proponents of this bill that research, development and technology in the United States have no unity of purpose or coordination, and are in a highly disorganized state.

As a matter of fact, the very opposite is true, for never in the history of the country have science and technology been so well organized and coordinated as they are to-day. Striking results have been accomplished by the coordination of governmental agencies, universities, privately endowed institutions, and industrial research laboratories. One may state that the scientific, technological and production men of the United States are doing the greatest job ever undertaken in the history of mankind, namely, converting a great country in less than two years from peacetime pursuits to an all-out war effort. It is safe to say that over 95 per cent. of our scientific and technical manpower and facilities are now highly organized and coordinated to the single end of advancing the war effort, despite the many difficulties involved.

Coordination extends not only to efficient use of materials but to effective mobilization of the human element in research. Our scientists are not only carrying on fundamental and exploratory research at a higher tempo than ever before, but also by applied research providing the materials necessary for the successful prosecution of the war.

In the *Journal of Industrial and Engineering Chemistry* (35: 385, 1943) there is a statement on "Scientific Regimentation" as implied by the Kilgore bill, by Walter J. Murphy.

"The very wording of the 'Declaration of Policy' constitutes a direct insult to the scientific minds of this country and is contrary to the actual facts, as any unbiased study will clearly show.

"We do not have 'an unassembled and uncoordinated state of information concerning existing scientific and technical resources'; we do know that there is no lack of 'an adequate appraisal'; the war effort is not suffering because of 'unplanned and improvident training, development, and use of scientific and technical personnel, resources, and facilities in relation to the national need,' with the exception of the policy of drafting badly needed technically trained manpower into the armed forces."

From time to time our attention is directed toward the super-coordination of science, technology and in-