

The product is of such physical condition as to be well suited for use as a conditioner in mixed fertilizer or for direct application. It promises to be of great importance in offering a cheap nitrogen carrier which, used in mixed fertilizer, will prevent caking of the mixture and keep it in condition suitable for easy distribution. The condition of the nitrogen being partly water-soluble and partly water-insoluble makes it of essential value where danger of leaching or loss through drainage is encountered. Substitution of this material for part of the inorganic materials in the fertilizer mixtures will also be of value in diminishing the burning effect of highly concentrated mixtures, as the amount of water-soluble nitrogen would be reduced thereby.

The advantages of ammoniated peat from the standpoint of fertilizer use are numerous and apparently convincing, and in addition both peat and ammonia from which it is made are cheap and abundant. There are estimated to be 14 billion tons of peat covering 110 million acres in the United States, and ammonia as produced from nitrogen fixation processes is one of the cheapest forms of nitrogen. While the process of manufacture has not yet been worked out, indications are that it will be relatively simple and cheap. Investigations on the details of the technical problems involved are being actively prosecuted.

In the soils unit of this bureau, H. G. Byers and I. C. Fenstal, while engaged on a study of the decomposition of peat, on heating it with aqueous ammonia in a closed vessel obtained a peat product with an increased nitrogen content.

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AN ACCURATE METHOD FOR MEASURING NEW-BORN MICE

WHILE carrying on growth studies of the mice of the genus *Peromyscus*, it became necessary to devise some method for the accurate measurement of new-born and very young mice. For the first two or three days after birth, these mice are so small, squirmy and curled in posture that it is almost impossible to

take accurate measurements of the total length, tail length and hind foot by the usual hand methods.

The idea was therefore conceived of taking pictures of each litter with a Leica camera. A metric scale was pictured at the same exposure so that the mice were all taken at a fourth natural size. The negatives were then projected upon a screen by means of an ordinary lantern slide projector at forty times the negative size or ten times natural size. The measurements were then taken from the screen picture and divided by ten. The curved areas, such as the total length, were measured with a pair of dividers. The cost per picture is nominal where a Leica camera and a projecting apparatus are available, and the accuracy of this method fully compensates for the small amount of time and labor involved. It is suggested that this method may also prove efficient in measuring other small animals.

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A NEW SOURCE OF WORKING CURRENT FOR POTENTIOMETERS

THE writer has observed that a two-volt primary battery on the market, known as an "air-cell" battery,¹ has characteristics which make it an almost ideal source of working current for a potentiometer.

This battery has a rated capacity of 600 ampere hours and a flat voltage discharge curve if the current drain does not exceed the specified 650 milliamperes. This is ample capacity for a potentiometer for many months' use.

The writer has used such a battery in place of a storage battery and has found that when protected against changes of temperature the working current will remain constant for hours and in some cases an entire working day without adjustment.

The above features, together with its cheapness and continuity of service, make it a very desirable source of current. The potential of a storage battery drops steadily until it reaches a point where it must be replaced and recharged.

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SPECIAL ARTICLES

THE EFFECT OF GALACTOSE FEEDING UPON DEPANCREATIZED DOGS

THE studies of Roe and Schwartzman,¹ in which it was shown that diabetic subjects have practically as

good a tolerance for galactose as normal subjects, suggested that it would be of interest to study the influence of pancreatectomy upon the metabolism of galactose. We have therefore undertaken an investigation of the metabolism of galactose in depancreatized dogs,

¹ J. H. Roe and A. S. Schwartzman, *Jour. Biol. Chem.*, 96: 717, 1932.

¹ Eveready Air-Cell "A" Battery, manufactured by the National Carbon Company.