that the agricultural bureaucrats and the economic entomologists of the country have gone wild upon the subject and that the time has come for the whole question to be reconsidered from the ground up and some restraints applied.

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THE MICROMETRIC MUDDLE

USE the symbol μμ and it will be variously interpreted depending upon the audience. Chemists and biologists and hence most workers in agricultural sciences will almost unanimously agree that you are indicating the unit equal to one millionth of a millimeter and will permit you to call it a millimicron or a micromillimeter—though the biologists may maintain that the term micromillimeter is synonymous with micron; physicists will be certain that you mean one billionth of the millimeter (which you do if you have pledged allegiance to the U. S. Bureau of Standards) and will smile wisely if you should call it a millimicron. They know that millimicron is the term applied to the unit equivalent to one thousandth of a micron, but contrary to the other groups they would abbreviate that by the symbol mμ, again having the sanction of the Bureau of Standards and hence (probably) most handbooks. But—and this is the sad fact—the others are also correct according to the traditional usage in their fields, and they have for their authorities most of their text-books and the dictionaries.

The state of this affair is deplorable. All micrometric terms and symbols are useless, with the exception of those of the micron and Ångström unit, unless accompanied by an exact description referring back at least as far as the micron. Otherwise one runs the risk of being misinterpreted.

The various, more or less accepted, terms are as follows: The unit representing one thousandth of a millimeter is usually called the micron (symbol, μ) but it may also be called the micromillimeter according to Webster's Dictionary and certain older biological texts. The latter term, happily, is seldom applied to this unit and it may be considered obsolete. One millionth of the millimeter is commonly represented, except by light-wave measures, by the symbol μμ. Physicists apply the abbreviation mμ. All groups agree to call it either the millimicron (favored by the light-measurers) or the micromillimeter. It is indeed fortunate that these tongue-twisting twins commonly have the same meaning. The confusion is amply completed by the acceptance, mainly by physicists, of the symbol μμ to represent the smallest unit of measure, the millionth-micron or micromicron, 10^{-9} mm.

Certainly the system should be definitely put in order. What to do about it is not so easy to decide; for though it might seem proper to insist on strict adherence to the present authorization of the Bureau of Standards it can be argued that their system is that of the physicists who are a minority and that the biologists and chemists besides being greatly in the majority use the terms and symbols most widely distributed in scientific literature. But the fact remains that the common system does not provide for the micromicron (10^{-9} mm) whereas that authorized by the Bureau of Standards is complete in this respect.

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OESTRUS DURING PREGNANCY

So far as the writer is aware no cases have been reported of oestrus occurring during the period of pregnancy in the white rat and allied forms. The observation of Long and Evans[1] (1922), based upon an extended series of investigations on the rat, is that oestrus is suspended during the gestation period. From a thorough study of the vaginal smears of a great number of pregnant rats they concluded (p. 56) that, "In our experience no oestrous changes occur in the cell content of the vaginal smear during the period of pregnancy." However, they recorded two cases of animals copulating during the gestation period. Allen[2] (1922) found no instances of oestrus during pregnancy, nor did Parkes[3] (1926). The latter, however, has shown that a lactating mouse, which is suckling two or less young, may exhibit typical oestrus cycles. Animals suckling more than two do not show the rhythmical vaginal changes during the period of lactation.

During the course of some experimental work in this laboratory a series of oestrous cycles was observed in a pregnant albino rat. The animal in question was a healthy virgin female. She had been unilaterally ovariectomized several days prior to her first copulation. Five days later she again came into oestrus and copulated. Thereafter for four successive cycles her vaginal content exhibited the typical cornified cell picture on every fourth day; further copulation was observed on two of these occasions. We had no suspicion of her actual condition since her size at no time approached that of the ordinary pregnant rat. The usual "placental sign" on the thirteenth or fourteenth day also was lacking. However, on the evening of the twenty-first day after the initial copulation she gave birth to five healthy young.

[1] "The Oestrous Cycle in the Rat and Its Associated Phenomena," The Memoirs of the University of California, Vol. 6, 1922.

[2] Edgar Allen, "The Oestrous Cycle in the Mouse," *American Journal of Anatomy*, 30: 297, 1922.

[3] A. S. Parkes, "Observations on the Oestrous Cycle of the Albino Mouse," *Proceedings of the Royal Society, B*, 100: 151, 1926.