

FATE OF BIURET IN TEA SOILS

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Biuret found as an impurity in urea (less than 1.0%) was once speculated to accumulate in tea soils with the continuous use of urea based fertilizer mixtures to such an extent, that it could even lead to the build up to phytotoxic levels.

This paper reports some results from laboratory incubation studies on the biuret decomposition in tea soils. The effect of chemical and heat sterilization, soil organic matter, temperature and moisture on the rate of biuret decomposition is reported.

The results showed that biuret undergoes complete degradation in tea soils within 10 weeks. The decomposition was faster during the first four weeks and declined thereafter, chemical and heat sterilization retarded biuret decomposition, while the presence of mulch accelerated the process. At 40°C the decomposition of biuret was appreciably lower than at 30°C. Minimum decomposition was observed at 10°C. Moisture at 30% (Field capacity) accelerated the decomposition of biuret more than at 20%

It is thus clear that the trace amounts of biuret found in urea based fertilizer mixtures, undergoes ready decomposition in the soils and therefore the fear that biuret could accumulate in tea soils with the use of urea based fertilizers is unfounded.