

## MICRONUTRIENT COATING TECHNOLOGY IN GRANULAR FERTILIZER

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**T**he inclusion of micronutrients in solid fertilizers is very interesting for the conditions of the Brazilian tropical soils, however when in mixtures of granules they are subject to the effects of segregation. The objective of this study was to verify the efficiency of micronutrient fertilizer granule coating technology called "Micro Total". The study was carried out at the University of São Paulo, using two mixtures of N: P2O5: K2O granules with the formula 05: 15: 10+0.2% Zn+0.1% B, being a "conventional" and the other "Micro Total". The physical and chemical evaluations were done at the transversal application profile, at distances of 0, 2, 95, 5, 45, 7, 95 and 10, 45 m for the left and right sides of the application. A centrifugal applicator was used with two coupling discs at the three points of the tractor, with a gravimetric meter and capacity of 1,200 kg. The collectors of the transversal profile were 0.5 x 0.5 m. Four repetitions were done at 0, 30, 150 and 365 days of storage. The results indicated that segregation occurs for the nutrients N:P2O5:K2O of the formula, as it was expected being it a mixture of granules, however for micronutrients there was a distinction between the conventional and Micro Total processes. For the Zn when in conventional technology, the average for the content was 0.198% Zn and the standard deviation (SD) of 0.027 and for the Micro Total, the average was of 0.197 and SD=0.002. For Boron, the results were for the conventional: average=0.101; SD=0.0114 and for the Micro Total: average=0.113; SD=0.0062. Therefore, it was concluded that the "Micro Total" coating technology was more efficient in reducing the segregation of the micronutrients in the formulas N: P<sub>2</sub>O<sub>5</sub>; K<sub>2</sub>O granules.

### Biography

Pedro Henrique de Cerqueira Luz doctors degree from the University of São Paulo - USP in 1995, specialization at the University of Valencia in 1997, he worked for 9 years at Institute of Sugar and Alcohol at Planalsucar, 28 years at USP. He has been responsible for the Laboratory of Soils, Plants and Fertilizers at Pirassununga Campus for 21 years. He published 52 scientific articles in indexed journals, five technical books and 36 book chapters in the field of soil and plant nutrition and technology for the application of correctives and fertilizers.

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