Imaging of Polymer Microcapsule Morphology in Pesticide Product

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EXTENDED ABSTRACT

The polymer microcapsules used for pesticide product are often subjected to stresses from delivery. This stress can compromise the controlled time-release needed for desired distribution. Three types of commercial pesticides were sprayed and then analyzed by scanning electron microscopy (SEM). By doing this, morphology characteristics of each product could be examined. Wall thickness and surface roughness were studied through transmission electron microscopy (TEM) imaging. These wall traits can be related to wall permeation and can form conclusions about unwanted channeling of the encapsulated pesticide product. Conclusions from this study show that a product that has minimal wall porosity will have reduced amounts of unwanted channeling upon impact.