

MODIFIED LIGNIN SULFONATE FORMULATION
FOR THE PHOTO PROTECTION OF GMNPV

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ABSTRACT

Many potentially useful insecticides and herbicides undergo relatively rapid degradation on exposure to sunlight. This research studied the formulation and behavior of a novel water-soluble carrier which was designed to form thin surface layers over leaves and stalks. This formulation contained a modified lignin sulfonate, photoreactive cross-linking agents and GMNPV. The research demonstrated that this formulation is converted by sunlight into a crosslinked film which is both water-insoluble and protects GMNPV from UV light. Bioassay studies demonstrated that this approach is as effective as the Forest Service formulation used for GYPCHEK. However, the modified lignin sulfonate formulation contain approximately one-fifth as many PIBs to achieve the same LD₅₀. Future tests will be performed in bogs to evaluate efficacy under damp conditions.

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