

INTELLECTUAL PROPERTY DISCLOSURE

University of Kentucky

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EXECUTIVE SUMMARY

We describe a **USE PATENT** for control of Eastern Tent Caterpillars and related caterpillars utilizing trail pheromones and/or related structures described and approached in our May 12th 2002 IPD. It involves the physical distribution of trail pheromones at an early stage in ETC larval development, disrupting critical social and trail following behaviors of ETC causing larval death, thereby protecting pregnant brood mares and horse farms from invasion by ETC.

This approach will also apply to other significant conditions caused by ETC or other caterpillars, since trail pheromone spraying is likely to also be disruptive of social and trail following behaviors of other caterpillar larvae.

This approach will provide a safe, economical and environmentally friendly mechanism of controlling ETC and related caterpillars, including preventing leaf exfoliation and related adverse effects in all settings, including garden, horticultural, ornamental and other non-equine settings.

The approach promises to be more effective than other approaches in that partial spraying of a tree is likely to be highly disruptive of ETC development. For example, egg mass treatments are best applied directly to the egg masses, while trail pheromone treatments need only cross an ETC trail for disruption of caterpillar behaviors.

Nothing in this disclosure should be perceived as limiting the use of combinations of trail pheromones and pesticides. In horticultural and garden settings, where control may be reactive, timely early application of the trail pheromone may not occur. Under such circumstances, trail pheromone-pesticide combinations may best fit general usage/control patterns.