

1-Page Concept Paper

Management of Ambrosia beetles and their symbiotic fungi

Goal: Develop sustainable integrated management for ambrosia beetles as pests of woody ornamentals and transfer management technology to growers.

Objective 1. Understand life cycle, host preference and choice, and colonization success of beetles. Understand life cycle, variability and growth requirements of symbiotic fungi.

Objective 2. Improve detection, determine timing and location of beetle attacks. Determine susceptibility of tree hosts to infection by symbiotic fungi.

Objective 3. Optimize application technologies to target appropriate life stages and locations

Objective 4. Determine economic impact of pests, calculate costs of management tactics and determine economic thresholds

Objective 5. Develop integrated management strategy to include evaluation of risks associated with tactical choices while minimizing costs to end-users.

Objective 6. Utilize these approaches to evaluate management options for related wood-boring beetle pests of woody ornamentals

Objective 7. Transfer management technology to end users.

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Anticipated Products: improved knowledge of ambrosia beetles and their symbiotic fungi, control alternatives, trapping technologies, application technologies, economic thresholds and impacts, management program transferrable to end users.

Funding level for team project: (to be determined)