

WESTERN PINE BEETLE

Semiochemical Baiting Efficiency for Western Pine Beetle - The objective of this investigation is to determine if differences exist for semiochemical baiting densities for western pine beetle. Treated plots will either be baited with two or five attractive semiochemical baits resulting in various degrees of tree infestation. Results can be used to recommend appropriate bait densities using a bait and harvest management strategy.

If you have candidate ponderosa pine stands and wish to cooperate in this evaluation, please contact me. Treatment will create newly infested trees! From an operational viewpoint, cutting units planned for harvest after September 1991 are best.

DOUGLAS-FIR BEETLE

A Field Test of the Efficacy of MCH in Preventing Douglas-fir Infestation by Douglas-fir Beetle - The objectives of this investigation are to determine: 1) the efficacy of MCH to prevent Douglas-fir beetle infestation in the presence of Douglas-fir beetle baits, 2) the efficacy of MCH to prevent Douglas-fir beetle infestation in Douglas-fir stands, 3) the response of Douglas-fir beetle to stands surrounding MCH treated blocks, and 4) the efficacy of MCH as an individual tree protectant and the area each capsule can protect.

Treatments will consist of deployment of either 5 attractive Douglas-fir beetle baits/plot, 5 attractive Douglas-fir beetle baits and 100 MCH capsules/plot, 100 MCH capsules/plot and an untreated experimental control. Plots have been established on the Weiser RD, Payette NF, but suitability has not been verified.

Aerial Application of MCH to Prevent Damage by Douglas-fir Beetle to Standing Green Douglas-fir in Interior Forests - The objectives of this cooperative study are to evaluate that aerially applied MCH will protect standing green Douglas-fir trees threatened by the beetle and to establish a dose/effect curve with a controlled release formulation of MCH. In 1991, we plan to: prepare a final study plan (PNW), procure the MCH (PNW), prepare NEPA documents (FPM/NFS), determine availability of application equipment (FPM-R1), and select plots for treatment (FPM, PNW, NFS). Treatment will consist of aerial application of plastic beads containing MCH. Treatments will consist of: untreated experimental control, 3 g MCH/ac, 10 g MCH/ac, 30 g MCH/ac, and 100 g MCH/ac each treatment replicated 5 times.

You can assist here by identifying prospective treatment areas. In fall 1991, after completion of the annual aerial detection survey, we will visit prospective field locations and establish plots. Please notify me soon if you wish to be involved so NEPA documentation does not become a constraint.

SPRUCE BEETLE

Semiochemical Baiting Efficiency for Spruce Beetle - The objective of this investigation is to determine if differences exist for semiochemical baiting densities for spruce beetle. Treated plots will either be baited with two or five attractive semiochemical baits resulting in various degrees of tree infestation. Results can be used to recommend appropriate bait densities using a bait and harvest management strategy.

If you have candidate spruce stands and wish to cooperate in this evaluation, please contact me. Treatment will create newly infested trees! From an operational viewpoint, cutting units planned for harvest after September 1991 are best.

A Field Test of the Efficacy of MCH in Preventing Spruce Infestation by Spruce Beetle - The objectives of this investigation are to determine: 1) the efficacy of MCH to prevent spruce beetle infestation in the presence of spruce beetle baits, 2) the efficacy of MCH to prevent spruce beetle infestation in spruce stands, 3) the response of spruce beetle to stands surrounding MCH treated blocks, and 4) the efficacy of MCH as an individual tree protectant and the area each capsule can protect.

Treatments will consist of deployment of either 5 attractive spruce beetle baits/plot, 5 attractive spruce beetle baits and 100 MCH capsules/plot, 100 MCH capsules/plot and an untreated experimental control. If you have areas of spruce beetle with no plans for treatment in 1991 and want them to be considered for possible treatment, please contact me.

The preceding only briefly identifies plans for 1991. Problems abound; such as product availability, timing of funding, staffing, and weather to name a few but, without challenging these problems, little advancement is possible regarding the technical aspects of pest management. There are no mistakes--only learning experiences. With your continued help, jointly we will learn.

If you wish to discuss these endeavors and examine the study plans, do not hesitate to call. Likewise, I am always open to suggestions for future projects since without your direction national emphases are unguided. For a brief update of project accomplishments to date, see our upcoming 1990 Regional Conditions Report.

/s/ R. W. Thier

R. W. THIER
Entomologist

Enclosure

cc:

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L. Sower, PNW
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Proposed Schedule of Work

EPA

Project Title	Plot Size	Registration Number of Plots	Plot Characteristics & Constraints
t selection installation evaluation Information			
Pine Engraver Beetle 3/91	1 ch X 1 ch 6/91	10	Ponderosa pine thinned or harvested winter '90/1991 or spring 1991
Disruption	not reg.		
		EUP not	
		required	
Semiochemical Baiting 3-5/91	1 ch X 10 ch 8-9/91	30	Predominantly ponderosa pine >12" DBH BA>120 sq. ft., western pine beetle
Efficiency for Western Pine Beetle	not subject to regist.		active within 3 ch. of the plot. Plots 5-10 ch. apart.
Field Test of the Efficacy 3/91	5 ch X 5 ch 8-9/91	20	60% of stand is DF with 3-10 infested trees/plot. Plots within a replication
of MCH in Preventing Douglas-fir Infestation by Douglas-fir Beetle	EUP-23 thru 5/93		uniform (stocking, aspect, etc) as possible
Aerial Application of MCH 9-10/91	10 ac 8-9/92	25	>60% of stand is DF with at least 50 green DF >12" dbh/ac. Each plot contains 15 trees killed by DF beetle in 1991
to Prevent Damage by Douglas- fir Beetle to Standing Green DF in Interior Forests	thru 5/93		
Semiochemical Baiting 3-4/91	1 ch X 10 ch 8-9/91	30	Predominantly spruce >12" DBH BA>120 sq. ft., Spruce beetle
Efficiency for Spruce Beetle	not subject to regist.		active within 3 ch. of the plot.

Plots 5-10 ch. apart.

60% of stand is ES with 3-10 infested trees/plot. Plots within a replication uniform (stocking, aspect, etc) as possible

20

5 ch X 5 ch
8-9/91 EUP-23

thru 5/93

Field Test of the Efficacy
3-4/91 5/91
of MCH in Preventing Spruce

Infestation by Spruce Beetle