

WSBA — OSBA JOINT CONFERENCE
October 23-25, 1986
Hood River Inn, Hood River, Oregon
THEME: UNITY — TODAY AND TOMORROW

PROPOSED AGENDA

Thursday 23rd

12:00 P.M.	Lunch
1:00	WSDA-OSBA Committee, Board Meetings
4:30	Adjourn
6:00	Registration
	Wine, Cheese Tasting

Friday 24th

7:30 A.M.	Registration
8:00	Seed Pollination Management — Mike Weber
9:00	Research Update - 1986 — Dan Mayer
9:30	Foraging Behavior of Honey Bees — Carl Johansen
10:00	Break — Coffee, Tea, Juice
10:20	Environmental Research — Jerry Bromenshenk
11:00	State Regulations, Acarine Update - Panel Discussions — J. Bach/D. Turner
12:00	Lunch — Buffet
1:00 P.M.	Chalkbrood Economics and Control — Steve Tabor
2:00	Oregon State University - Elisa: What It Means and How It Works
2:30	Mites - Internal and External, The Latest Story — Mike Burgett
3:00	Break — Coffee, Tea, Juice
3:20	Queen Breeding - Tim's Style — Timothy Lawrence
4:00	Apiculture in California — Eric Mussen
4:45	WSBA Master Beekeeper Certification Program - Journeyman — Dan Mayer
5:00	Adjourn
6:30	Attitude Adjustment
7:00	Banquet
	Auction

Saturday 25th

7:00 A.M.	Continental Breakfast
7:30	Registration
8:00	The Africanized Honeybee in Panama — Sue Colby
9:00	Queen Rearing For Disease Resistance — Steve Tabor
10:00	Break — Coffee, Tea, Juice
10:20	Oregon, Washington Business Meetings — Dennis Sires/Bob Arnold
12:00	Lunch
1:00 P.M.	WSBA - Master Beekeeper Certification Program: Apprentice Beekeepers Short Course — WSBA Committee
3:00	Break — Juice
3:20	WSBA - Master Beekeeper Certification Program - Continued
5:00	Adjourn

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INTEGRATED POLLINATOR RESEARCH AT
WASHINGTON STATE UNIVERSITY IN 1986

D.F. Mayer, C.A. Johansen, J.D. Lunden, and Lora Rathbone

Washington State University has maintained an active program in bee research since the 1920's. Our work involves both honey bees and wild bees with emphasis on 1) the protection of bees from pesticides and 2) using bees as pollinators. Both research and extension are components of the project. This paper reports some of the bee research work done in 1986.

Bond® and Bee Hazard of Insecticides

The study was designed to determine the bee hazard of different insecticides combined with the chemical sticker Bond®. Residual bioassays were conducted on honey bees, alkali bees, and alfalfa leafcutting bees. Honey bee mortality was significantly reduced during one or more of the time treatments tested by adding Bond to 11 insecticides out of the 25 tested. Leafcutting bee mortality was reduced by adding Bond to 2 insecticides out of the 7 tested. Alkali bee mortality was reduced by adding Bond to 1 insecticide out of the 4 tested.

Residue Bioassay on Honey Bees with Lindane and Asana

Three different formulations and 3 different rates of each formulation of Lindane were tested. It is probably too toxic to be used on blooming crops or where it may drift to areas where bees are foraging.

Asana (a new insecticide related to Pydrin) is more hazardous to bees than Pydrin and is probably too toxic to be used on blooming crops or where it may drift to areas where bees are foraging.

Residue Bioassay on Bees with Spur vs Buffered Spur

Buffering Spur did not change the bee hazard to alkali bees or alfalfa leafcutting bees.

Raspberries, Bees, and Pesticides

A field test of Sevin XLR Plus on blooming red raspberries caused a moderate honey bee kill for one day. The material is too toxic for use on blooming berries. Another test using reduced rates of Lorsban showed this material, at the rates tested, is too toxic for use on blooming berries.

Tripping of Alfalfa Flowers by Honey Bees

Data on honey bee tripping of alfalfa flowers were collected on 10 varieties of alfalfa. Overall, honey bees tripped less than 1% of the alfalfa flowers visited. There were not significant differences in honey bee tripping rate between the different varieties of alfalfa.

Strawberry Pollination

Shuksan strawberry plants caged to exclude pollinator insects showed a significant decrease in production. Honey bees accounted for the bulk of pollinator activity in the field. The number of honey bees per 100 feet of row was quite low.

Effects of Fluoride on Honey Bees

This year we completed the third year of a three-year study, "Evaluation of Fluoride Levels and Effects on Honey Bees (*Apis mellifera* L. (Hymenoptera: Apidae)." As in previous years there were differences in fluoride levels in bees and pollen collected from different areas in relation to a point source of fluoride. We could not detect any adverse effects of fluoride on honey bee colonies.

DiBeta Insecticide

This material, an exotoxin of *Bacillus thuringiensis*, is not hazardous to bees. At 60 grams ai/A, it showed good activity on lygus bugs when applied to blooming alfalfa. It is not highly toxic to beneficial predator insects which eat lygus bugs.

Lorsban for Alfalfa Insect Pest Control

This study was designed to determine if 0.25 lb ai/A of Lorsban would control insect pests of alfalfa. It did effectively control alfalfa weevils and lygus bug nymphs.

Timothy Scale Insecticide Tests

This study was designed to determine if Spur or Pounce, which are relatively non-hazardous to bees, would reduce Timothy scale insect populations on Timothy hay. They did not control the scale.

Control of Corn Earworm with ULV Pounce and Pydrin

Both Pounce and Pydrin at ULV rates reduced corn earworm populations over the check plot. Bee hazard was rated low.

Control of the Conopid Fly Parasite of Alkali Bees

This study was designed to determine if potting stakes dipped in either Dylox or Pounce and placed in bee beds would kill conopids without harming alkali bees. Dylox effectively killed conopids without harming bees. Pounce killed both conopids and bees.

Effect of Spur and Dylox Insecticides on Alfalfa Leafcutting Bees

This study was designed to determine if there were differences in the relative toxicity of Spur and Dylox to different populations of leafcutting bees. Canadian bees had less mortality from both insecticides than bees from Washington.

Tree Fruit Pollination

An attempt was made to use alfalfa leafcutting bees for apple pollination. The bees did work apple bloom but weather was too cold for adequate leafcutting bee flight. A large scale test on Red Delicious apples using pollen inserts did not provide for a commercial crop. A test of the effect of helicopter applications of pollen and the use of pollen inserts on cherry production was conducted. There was poor set in general and most of the fruit was on top of the trees. Several tests were conducted to determine how long fruit pollen is viable inside a bee colony and the rate of pollen transfer between bees inside a colony. Data of bee behavior and horticulture characteristics were collected for several varieties of apples, cherries, pears, and prunes.

Carrot Seed Pollination and Pest Management

Studies were conducted to determine which life stage of lygus bug is most damaging and what age of carrot seed is most susceptible to damage. Carrot seed fields were surveyed to determine which insects were pollinating flowers in the absence of honey bees. Pollen inserts were tested in cage

