

# Control of Jojoba Looper by Insecticides

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## Introduction

The caterpillar *Anacamptodes obliquaria*, referred to by Arizona jojoba growers as the jojoba looper, is an insect having several generations per year in Arizona jojoba. The caterpillars feed on new growth and can, when numerous, remove much foliage. This study evaluates the effectiveness of several insecticides against the jojoba looper.

## Procedure

Five treatments were applied for control of last instar larval control of jojoba loopers in a 5 year old commercial jojoba plantation near Tacna, AZ. Treatments were replicated four times in a randomized complete block design. Each plot consisted of 20 ft of row. Row spacing was 13 ft. Treatments were Furadan 4F, Cygon 400, Capture 2EC, and two rates of Asana 1.9EC, as well as an untreated check. Treatments were applied with a backpack CO<sub>2</sub> sprayer with two TX6 nozzles calibrated to deliver 8.7 GPA at 30 psi. Both sides of the plot row were treated on May 27, 1988.

Samples were attempted to be taken at 1 and 3 days post treatment. The sampling method used was the Gutierrez method. This method, named for its developer Daniel Gutierrez, consisted of spraying a fine mist into the canopy. The mist agitates the jojoba loopers and causes them to either move around violently and/or to suspend themselves by a silken thread from the foliage. Larvae in the entire plot were counted. Data were analyzed by Student-Newman-Keuls test.

## Results and Discussion

Four of the five treatments provided excellent control. Furadan 4F, Capture 2EC, and both rates of Asana 1.9EC provided greater than 98% control 1 day post treatment and had significantly less loopers than the untreated or Cygon 400 treatments. Cygon 400 provided only 12.5% control of the last instar loopers, but data is not available for the efficacy of this product against the smaller loopers. No data were available 3 days post treatment as all the loopers had pupated. Plots were also checked for phytotoxicity as some of these insecticides had not previously been used on jojoba. No phytotoxicity was observed from any of the products involved.

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Control of Jojoba Looper by Insecticide, One Day Post Treatment

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<u>Treatment</u>	<u>Rate lb ai/A</u>	<u>Mean Number<sup>1</sup> Loopers/Plot</u>	<u>Percent Control</u>
Asana 1.9EC	0.025	0.0 <sup>a</sup>	100.0
Asana 1.9EC	0.05	0.0 <sup>a</sup>	100.0
Capture 2EC	0.01	0.25 <sup>a</sup>	98.2
Cygon 400	0.5	12.25 <sup>b</sup>	12.5
Furadan 400	1.0	0.25 <sup>a</sup>	98.2
Untreated Check	---	14.0 <sup>b</sup>	----

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<sup>1</sup>Means followed by the same letter are not significantly different at the  $p \leq 0.05$  level (Student-Newman-Keuls 't' test).

**Acknowledgements:** The cooperation of Daniel Gutierrez and Randy Janaury of January Farms, Tacna, AZ, is greatly appreciated.

# JOJOBA LOOPER CONTROL ONE DAY POST TREATMENT

