

GUTHION FOR CONTROL OF NAVEL ORANGEWORM IN ALMONDS

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OBJECTIVES and GOALS:

Chemagro's 1975 goals were to determine the best timing for and highest quality of navel orangeworm control with GUTHION. Observations were to be made on the effects of GUTHION on mite populations.

ABSTRACT:

Trials were conducted at eight locations throughout the central valley of California from Kern to Butte Counties. One or two applications of GUTHION insecticide were made when timing was appropriate using the navel orangeworm trap and technique developed by Dr. Richard Rice of the University of California. GUTHION 50% WP was applied at the rate of four pounds per acre in 100 to 400 gallons of water per acre. No differences in navel orangeworm control were noted in relation to the dilution of water. Navel orangeworm control ranged from 40% to 85% reductions from an untreated check. An overall average of navel orangeworm reduction for the eight trials was 65%. The average navel orangeworm reductions were 74% with well-timed trials and 43% in poorly-timed trials. We strongly advise that all uses of GUTHION insecticide for navel orangeworm control in almonds be timed with a suitable egg trapping device. Observations were made on mite activity following the use of GUTHION and varied throughout the state. No applications of acaracides were made in the Butte County trials. One of the two trials in San Joaquin County was treated with an acaracide on a preventative basis. Trials in Stanislaus and Kern Counties were treated in accordance with normal mite control procedures for those areas. No conclusive evidence was found that the use of GUTHION insecticide in almonds will result in a buildup of mites. Chemagro recommends that orchards treated with any insecticide be monitored for mite activity.

Chemagro



Agricultural Division

Mobay Chemical Corporation

P.O. Box 4913
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Kansas City, MO 64120

GUTHION 50% WP/Almonds
1975 N.O.W. Trials

Please reply to:

1551 E. Shaw
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Telephone: 209/227/6721

<u>Treatment</u>	<u>% N.O.W.</u>	<u>% Control</u>
Trial #1 - Kern Co. - Wasco		
GUTHION	9.9	67.2
Check	29.9	0
1 Application: 5/15/75 Yield: 2000 lbs/acre		
Trial #2 - Kern Co. - Wasco		
GUTHION	2.2	81.4
Check	11.8	0
2 Applications: 5/15/75, 6/4/75 Yield: 2000 lbs/acre		
Trial #3 - Kern Co. - McFarland		
GUTHION 1	6.1	67.2
GUTHION 2	9.7	47.8
Check	18.6	0
1 - 2 Applications: 5/21/75, 6/11/75		
2 - 1 Application: 6/12/75 Yield: 1320 lbs/acre		
Trial #4 - Merced Co. - Turlock		
GUTHION	1.6	83.2
Check	9.5	0
2 Applications: 5/21/75, 6/11/75 Yield: 2200 lbs/acre		
Trial #5 - San Joaquin Co. - Ripon		
GUTHION	2.1	75.3
Check	8.5	0
2 Applications: 5/26/75, 7/6/75 Yield: 1600 lbs/acre		
Trial #6 - San Joaquin Co. - Ripon		
GUTHION 1	6.3	44.7
GUTHION 2	6.8	40.4
Check	11.4	0
1 - 2 Applications: 5/26/75, 7/6/75		
2 - 1 Application: 5/26/75 Yield: 1420 lbs/acre		
Trial #7 - Butte Co. - Chico		
GUTHION	2.5	74.7
Check	9.9	0
2 Applications: 6/12/75, 7/9/75 Yield: 907 lbs/acre		
Trial #8 - Butte Co. - Chico		
GUTHION	4.7	39.0
Check	7.7	0
2 Applications: 6/14/75, 7/7/75 Yield: 907 lbs/acre		

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PRODUCT
BULLETIN

[®]**GUTHION**
50% WETTABLE POWDER
CROP INSECTICIDE
FOR CONTROL OF A WIDE VARIETY
OF AGRICULTURAL INSECT PESTS

RECOMMENDATION FOR USE IN CALIFORNIA

CROP	INSECT	Pounds GUTHION 50% WP	REMARKS
NUTS Almonds	Navel orangeworm Peach twig borer	3/4 to 1	Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 500 gallons of finished spray per acre. Do not apply more than twice per season nor within 60 days of harvest. Allow 30 days between applications.

*This dosage is calculated for conventional hydraulic-type sprayers. When lower volumes of spray are applied per acre with concentrate sprayers, increase the concentration of GUTHION in the spray mixture in order to apply amount of GUTHION per acre equivalent to a full-coverage spray.

IMPORTANT: Before using the product, read and carefully observe directions, cautionary statements and other information appearing on the product label. This product is sold subject to the Conditions of Sale, Warranty and Limitation of Damages set forth on the container label.

October 9, 1975

Chemagro



Agricultural Division

Mobay Chemical Corporation

P.O. Box 4913
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December 23, 1975

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Please reply to:

229 Baja Ave.
Davis, Ca. 95616
916/756-8577

Mr. Dale Morrison
Director - Special Projects
Almond Control Board
P. O. Box 26164
Sacramento, California 95826

Dear Dale,

Enclosed is a copy of our Objectives, Goals and Abstract statement for the 1975 work we did with GUTHION on almonds for control of navel orangeworm. I have also provided a copy of our data summary and the Product Bulletin which legalizes the use of GUTHION for control of navel orangeworm on almonds. As I stated at the meeting earlier this month, we are somewhat limited as to the data we can release in accordance with certain federal confidentiality acts. So, I'm providing as much data as I can at the present time and will release more as soon as the time becomes opportune.

We at Chemagro very much appreciate the opportunity to attend your meeting. We feel that we have something to offer to the almond grower at the present time and we are committed to further work on this project. We would also like to thank you and all members of the almond industry for the tremendous amount of assistance which has been provided to us during our current projects.

Best regards,

CHEMAGRO AGRICULTURAL DIVISION
MOBAY CHEMICAL CORPORATION

Jack D. Root
Technical Service Representative

JDR:pfj

Encl.

cc: M. B. Oller
M. T. Carter

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