

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460


EXPEDITE


OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

7 APR 1989

MEMORANDUM

SUBJECT: REQUEST FOR COMPREHENSIVE SOFTWARE PACKAGE USE
ASSESSMENT FOR GUTHION ON POMEGRANATES (HED # 9-1166)

FROM: Michael P. Firestone, Ph. D., Chief 
Review Section 1
Non Dietary Exposure Branch/HED

THRU: Charles L. Trichilo, Ph. D., Chief 
Non Dietary Exposure Branch/HED

TO: William Phillips, Chief
Biological Analysis Branch/BEAD

The purpose of this memorandum is to request that the Biological Analysis Branch prepare a use assessment for the insecticide Azinphos-Methyl (Guthion) on pomegranates, as soon as possible. The California Department of Food and Agriculture has requested a section 18 emergency exemption request for this use.

Please contact Linda Kutney at 557-0533, if you should have any questions in preparing this assessment.

PROJECTED PARAMETERS AND DATA FOR APPLICATION EXPOSURE FOR APPLYING GUTHION TO POMEGRANATES (GROUND APPLICATION), CA. ONLY (SECTION 18 EMERGENCY EXEMPTION REQUEST)

ENT. A1... REQUESTED EXPOSURE ASSESSMENT PARAMETERS FOR FILE: 32

A1	Chemical	Azinphos methyl
A2	Trademark (example):	Guthion 2S
A3	Pest:	Pomegranates
A4	Site:	Filbert moth
A5	Location:	California only (Section 18)
A6	Application method:	Ground application

ENT. B1... LABEL SUMMARY:

B4	Restricted pesticide:	YES
B3	Label signal word:	DANGER
B1	Formulation:	2 lbs. ai/gal
B5	Rate applied (label, range):	2-4 pints per acre
B6	Max. applications/season:	2
B7	Re-entry time:	2 days
B8	Pre-harvest interval:	55 days
B9	Feed and forage interval:	

Restrictions, limitation and worker protection statement:

A maximum of 1500 acres of pomegranates may be treated

ENT. C1... ASSUMPTIONS:

Mixed/loader/applicator are different person.
Closed system and nurse tank are used

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ENT. D1... APPLICATION METHODS AND EQUIPMENTS:

D1	Type:	Air blast	
D2	Swath width (range):	20-28	ft
D3	Swath width (most common):	24.00	ft
Tank capacity			
D4	Vol. (range):	500-1000	gal
D5	Avg. (most common):	1000.00	gal
D6	Speed (range):	1.25-2	mph
D7	Avg. (most common):	1.50	mph
D9	Ferry distance (approx.):	800.00	ft
D10	Ferry speed:	2.50	mph
Nurse tank:			
D11	Vol. (range):	1000-3000	gal
D12	Avg. (most common):	1500.00	gal

ENT. E1... FIELD APPLICATION PROFILE:

E2	Season applied/state of plant growth:	As needed	
E1	Orchard/farm size (avg.):	15.00	acre
E3	Formulation (ai):	32.000	ai/oz/gal
Application rate (product)			
E5	Range:	32-64	fl. oz/acre
E6	Most common:	48.00	fl. oz/acre
Number of applications			
E7	Range:	2	
E8	Most common:	2.00	
Vol. of finished spray:			
E9	Range:	200-400	gal/acre
E10	Most common:	350.00	gal/acre
E11	Hours/day suitable for application (approx.):	8.00	hr
E12	Length of run (approx.):	2000.00	ft

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ENT. F1... AREA TREATED PER A SINGLE TANK

(E2)	Orchard/farm size (avg.):	15.00	acre
F2	Area treated per tankful:	2.86	acre
(D3)	Swath width (most common):	24.00	ft
(E12)	Length of run (approx.):	2000.00	ft
	Swath run/tankful:		
F3	Approx.	2.59	
F4	Adj.	3.00	
F5	Length of run (adj.):	1728.57	ft

ENT. G1... APPLICATION TIME PER SINGLE TANKFUL

G1	# of turns:	2.00	
G2	Turning time:	15.00	sec
G3	Total turning time/tankful:	0.50	min
G4	Application time/tankful:	39.28	min
G5	Total time to spray full tank:	39.78	min
G8	Ferry time (round trip):	7.27	min

ENT. H1... NURSE TANK

(D12)	Most common:	1500.00	gal
H2	Time to fill a nurse tank with water:	11.25	min
H3	Refill transfer time (water) from nurse tank/spray tank:	7.50	min

ENT. I1... PESTICIDE CONTAINER/PACKAGE

I2	Pesticide needed/tankful:	1.07	gal
I3	Pesticide (ai) needed/tankful:	34.28	oz
I4	Time for transfer (pour) pesticide into tank:	2.14	min

Closed system in Ca.

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ENT. J1..TIME FOR LOADING A FULL TANK

J1	Nurse tank-water pouring time allocated to each spray tank:	7.50	min
(H3)	Refill transfer time (water) from nurse tank/spray tank:	7.50	min
(I4)	Time for transfer (pour) pesticide into tank:	2.14	min
J2	Total:	17.14	min

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ENT. K1... PROJECTED PARAMETERS AND DATA FOR APPLICATION EXPOURSE

(E1)	Orchard/farm size (avg.):	15.00	acre
(F2)	Area treated/tankful:	2.86	acre
(E11)	Hours/day suitable for application (approx.):	8.00	hr
K1	# of tankful/day (approx.):	8.46	
K3	Area treated/day:	22.85	acre
K2	# of tankful/day (adj.):	8.00	
K4	Hours/day suitable for application (adj.):	7.56	hr
(I3)	Pesticide (ai) needed/tankful:	34.28	oz
K5	Pesticide (ai) needed/day:	274.28	oz
K6	Pesticide (ai) needed/acre:	12.00	oz

TOTAL ESTIMATED EXPOSURE TIME FOR APPLICATOR(S)

ONE ORCHARD/FARM

	DAY	1 APPL -CATION	ONE SEASON	
# of application:	***	1.0	2.00	
Orchard/Farm size (avg.)	***	15.00	15.00	acre
Total area treated:	22.85	15.00	30.00	acre
Spray operator:				
Total ferry time:	58.18	38.18	76.36	min
Total turning time:	4.00	2.62	5.25	min
Total treatment time:	314.28	206.25	412.50	min
Mixer/loader				
Total time to fill nurse tanks with water:	60.00	39.37	78.75	min
Total transfer time (water) from nurse tank/spray tank:	60.00	39.37	78.75	min
Total pesticide pouring time:	17.14	11.25	22.50	min

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LITERATURES CITED:

ENT. A1...

HED

ENT. B1...

ENT. F1.... G1...., H1...., I1...., J1....

Automatic calculated

ENT. C1.... D1...., E1....

Sect 18 Emergency Exemption Request, 89-CA-19
Growing Pomegranates in California, Leaflet 2459
1980