

OPMP Pilot Survey
“Questions about Malathion Use in Vegetable Production”

Section 1 - Demographic Questions

1. Regarding your specialization in vegetable production, please select all that apply:

[If the respondent responds to Question 1 by selecting 1a-1f, continue to Question 2; otherwise skip to the end of the survey]

- a. I work for an academic institution (e.g., professor, researcher, Extension Agent)
- b. I am a Certified Crop Advisor (CCA)
- c. I am a member of the National Alliance of Independent Crop Consultants (NAICC)
- d. I am currently an agricultural producer of [use site]
- e. I was previously an agricultural producer of [use site]
- f. Other (please specify):
- g. None of the above

2. Approximately how many years have you been involved with vegetable production?

- a. <1 year
- b. 1 - <5 years
- c. 5 - <10 years
- d. 10 or more years

3. Approximately how many acres of vegetable production are you currently involved with?

[Numeric reply, bounded from below by 0]

4. In what state(s) are you currently involved with vegetable production? Check all that apply.

[List of all states and territories, with check boxes]

Section 2 - Questions about malathion use in vegetable production

Preferred option:

1. What are the target pest(s) that drive the use of maximum rates of malathion in vegetable crops and how many applications are needed per year to control these pests?

[Enter as many as six target pests for a given vegetable crop, or one target pest for as many as six crops]

	Target Pest	Vegetable Crop	Number of Applications
	1 = Caterpillars (Lepidopteran Pests)	1 = Fruiting Vegetables (e.g. tomatoes, peppers, eggplants)	
	2 = Beetles (Coleopteran Pests, including Adults or	2 = Cucurbit Vegetables (e.g. squash,	

	<p>Larvae) 3 = Flies or Midges (Dipteran Pests) 4 = Aphids, Whiteflies, or Thrips 5 = Mealybugs or Scale 6 = Other 'true bugs' (Hemipteran pests like plant bugs, stink bugs, etc.) 7 = Mites 8 = Root zone soil pests (grubs, rootworms, seed maggots, wireworms, etc.) 9 = Other (Please specify)</p>	<p>cucumbers, pumpkins) 3 = Leafy Vegetables (e.g. lettuce, spinach, leafy brassicas) 4 = Other Brassica Vegetables (e.g. broccoli, cauliflower) 5 = Root/Tuber Vegetables (e.g. potatoes, carrots, radishes) 6 = Other (Please specify)</p>	
Target Pest 1	[input item code]	[input item code]	[numeric reply, bounded from below by 0]
Target Pest 2	[input item code]	[input item code]	[numeric reply, bounded from below by 0]
Target Pest 3	[input item code]	[input item code]	[numeric reply, bounded from below by 0]
Target Pest 4	[input item code]	[input item code]	[numeric reply, bounded from below by 0]
Target Pest 5	[input item code]	[input item code]	[numeric reply, bounded from below by 0]
Target Pest 6	[input item code]	[input item code]	[numeric reply, bounded from below by 0]

1B. Please specify what target pest and/or vegetable crop you indicated as "Other" in the previous question.

[Question displays only if respondent responds to Question 1 by selecting 9 under Target Pest or 6 under Vegetable Crop]

[text input field]

Option 2:

1. What are the target pest(s) that drive the use of maximum rates of malathion in vegetable crops?

[Enter as many as six target pests for a given vegetable crop, or one target pest for as many as six crops]

	Target Pest	Vegetable Crop
	1 =Caterpillars (Lepidopteran Pests) 2 =Beetles (Coleopteran Pests, including Adults or Larvae) 3 = Flies or Midges (Dipteran Pests) 4 = Aphids, Whiteflies, or Thrips 5 = Mealybugs or Scale 6 = Other 'true bugs' (Hemipteran pests like plant bugs, stink bugs, etc.) 7 = Mites 8 = Root zone soil pests (grubs, rootworms, seed maggots, wireworms, etc.) 9 = Other (Please specify)	1 = Fruiting Vegetables (e.g. tomatoes, peppers, eggplants) 2 = Cucurbit Vegetables (e.g. squash, cucumbers, pumpkins) 3 = Leafy Vegetables (e.g. lettuce, spinach, leafy brassicas) 4 = Other Brassica Vegetables (e.g. broccoli, cauliflower) 5 = Root/Tuber Vegetables (e.g. potatoes, carrots, radishes) 6 = Other (Please specify)
Target Pest 1	[input item code]	[input item code]
Target Pest 2	[input item code]	[input item code]
Target Pest 3	[input item code]	[input item code]
Target Pest 4	[input item code]	[input item code]
Target Pest 5	[input item code]	[input item code]
Target Pest 6	[input item code]	[input item code]

1B. Please specify what target pest and/or vegetable crop you indicated as “Other” in the previous question.

[Question displays only if respondent responds to Question 1 by selecting 9 under Target Pest or 6 under Vegetable Crop]

[text input field]

2. How many applications of malathion are needed per year to control pests in vegetable crops?

[numeric reply, bounded from below by 0]

2. What percentage of your acres is malathion used on as an aerial application or as a ground broadcast application?

aerial: [numeric reply, bounded from below by 0 and above by 100]
 ground (broadcast): [numeric reply, bounded from below by 0 and above by 100]
 ground (chemigation): [numeric reply, bounded from below by 0 and above by 100]
 other [text input field] : [numeric reply, bounded from below by 0 and above by 100]

3. What alternatives are available for the pests targeted by malathion in vegetables? Choose all that apply:

- a. alternative organophosphates
- b. carbamates
- c. pyrethroids
- d. neonicotinoids
- e. non-insecticide alternative, [text input field]
- f. other, [text input field]

4. Were any of the following pesticide spraying practices or activities used to keep malathion application(s) on-target (i.e., reduce pesticide drift or runoff from treated fields)? Choose all that apply:

- a. riparian buffers to water bodies
- b. upwind swath offsets
- c. drift reducing technology (i.e., low drift nozzles)
- d. field runoff catchments
- e. altering spray application timing for more favorable wind speed/wind direction conditions
- f. other, [text input field]

5. Do use patterns for malathion in vegetables vary within the states that you operate in?

[If the respondent responds to Question 5 by selecting a, continue to Question 6; otherwise skip to the end of the survey]

- a. yes
- b. no

6. Where within the states that you operate in is malathion typically used? Check all that apply:

- the North West
- the North East
- the South West
- the South East
- the Center of the Region
- other, [text input field]

7. What are the differences in application rates of malathion to vegetables within the states that you operate in? Check all that apply:

[text input field]

8. What are the differences in the frequency of applications of malathion to vegetables within the states that you operate in? Check all that apply:

[text input field]

Paperwork Reduction Act Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0503-0026. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.