

Navel Orangeworm, *Amyelois transitella* (Walker); Lepidoptera: Pyralidae

Origin: 1966; Contra Costa County; Berkeley, CA; U.C. Berkeley; Laboratory Colony

Diet/Culture: Red Flaky Wheat Bran Diet in Gallon Jars (See Appendix)

Tasks Performed: Weekly

Weekly Schedule:

<u>Day</u>	<u>Procedure(s)</u>
Monday	Harvest/Process Egg Sheets (0-72 hrs); Set up New Cultures; Set up Egg Layers
Tuesday	
Wednesday	Harvest/Process Egg Sheets (0-48 hrs); Set up New Cultures; Set up Egg Layers
Thursday	
Friday	Harvest/Process Egg Sheets (0-48 hrs); Set up New Cultures; Set up Egg Layers

Harvest/Process (Surface Sterilize) Eggs:

*Materials:*

- Fumehood
- E/L containers with bleached paper towel egg sheets (end caps)
- Unbleached paper towels
- Scissors
- 500 ml beaker
- Forceps (8")
- 10% formaldehyde solution
- Timer
- Funnel and coffee filter
- Tap water

*Procedure (all performed under fumehood):*

1. Harvest egg sheet from E/L container(s)
2. Replace with unbleached paper towel
3. Discard E/L container(s) by placing in freezer
4. Trim excess paper towel from egg sheet
5. Cut egg sheets into quarters
6. Place in 500 ml beaker
7. Fill beaker with stock solution of 10% formaldehyde
8. Place large forceps over egg sheets to keep submerged
9. Set timer for 15 minutes
10. Pour formaldehyde solution back into stock container through funnel lined with coffee filter
11. Rinse egg sheets under tap water for 15 minutes using forceps to keep them in beaker
12. Spread egg sheets unbleached paper towels and allow to air dry under fumehood

Set up New Cultures:

*Materials:*

- Egg sheets, surface sterilized
- Gallon-sized culture jars filled with 500 g wheat bran diet
- Filter paper (110 mm) and screened screw cap lids

*Procedure (all performed under fumehood):*

1. Cut sections of egg sheets containing 750 to 1250 eggs and place one sheet, face down, on surface of the diet inside a gallon-size culture containing 500 g wheat bran diet
2. Cut sections of egg sheets containing 750 to 1250 eggs and place one sheet, face down, on surface of the diet inside a gallon-size culture containing 500 g wheat bran diet
3. Close culture with filter paper and screened lid
4. Incubate cultures at 27°C and 60% RH

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Set up Egg Layers (E/L):

*Materials:*

- NOW adults
- NOW E/L container(s)
- Paper towels, bleached
- Rubber bands, #18
- Aspirator

*Procedure (performed under fumehood):*

1. Aspirate ca. 150 to 200 NOW adults (75 to 100 from two different cultures, if possible)
2. Transfer adults to E/L container
3. Cover with paper towel
4. Hold towel in place with two #18 rubber bands and pull towel smooth and tight over container
5. Set container aside with paper towel side down for a few minutes
6. Place containers on holding room shelf in front of night light with fold of paper towel situated horizontally