

Merchant Grain Beetle, *Oryzaephilus mercator* (Fauvel), Coleoptera: Silvanidae
Sawtoothed Grain Beetle, *Oryzaephilus surinamensis* (L.), Coleoptera: Silvanidae

Origin: Merchant and Sawtoothed grain beetles; Unknown; circa 1967

Diet/Culture: Rice Bran Diet in Quart Jars (See Appendix)

Tasks Performed: Weekly

<u>Day</u>	<u>Procedure(s)</u>
Monday	Set up New Cultures with Egg Layers
Tuesday	
Wednesday	
Thursday	Remove Egg Layers from New Cultures
Friday	

Set up Egg Layers/New Cultures:

Materials:

- MGB or SGB cultures with adults
- Sieve and pan setup (#14 and #30)
- Pour pan
- Aspirator
- Graduated cylinder, Nalgene®, 10 ml
- Small funnel, Nalgene®

Procedure – performed under fumehood:

1. Shake culture and pour ca. half into sieve
2. Shake sieve to separate beetles from diet
3. Return material from both #14 sieve and bottom pan to culture jar
4. Aspirate adults from #30 sieve
5. Transfer 1 ml adults into each new culture jar using graduated cylinder and funnel
6. Close jar with wire mesh and filter paper lids
7. Place new jars in holding room for development
8. Allow three (3) days oviposition period
9. Discard old colony jars by removing labels and placing in freezer

Remove Egg Layers (E/L):

Materials:

- New cultures with E/L
- # 14 and # 30 sieve & pan setup
- Pour pan
- Empty quart jar
- Aspirator (optional, primarily used for capturing escapees)

Procedure – performed under fumehood:

1. Pour contents of culture jar into sieves
2. Agitate vigorously back and forth until beetles falls through # 14 sieve into # 30 sieve
3. Brewer's yeast and eggs will fall through both sieves into bottom pan
4. Using pour pan, transfer diet with both top sieve and bottom pan back to culture jar
5. Using pour pan, transfer beetles in middle sieve (#30) into empty quart jar and discard by freezing
6. Replace lid and return cultures to shelf in HR #1

Clean up:

Wipe down and disinfect surfaces of fumehood and cart before handling another species
Place all materials used in handling insect in freezer before proceeding