DROSOPHILA - FREQUENTLY ASKED QUESTIONS!

Which to use, how to keep and handle, time schedule, useful tips?
See attached information sheet. We are always willing to advise customers if they require further help.

How many flies are produced by small/large cultures?
60/70 small culture, 200 large culture.

Flies have died in transit after being trapped in food media!
Bang the bottle so that the media returns to the bottom, then incubate as normal and new flies will emerge.

Note: **We do not guarantee the arrival of live flies in stock cultures. The cultures are checked for larvae before despatch. As stock cultures are often ordered to collect males from, to add to segregated females, it would be better to order them earlier to ensure that there are sufficient flies available.**
Occasionally, flies die in transit due to extremes of temperature, we normally replace these free of charge.

Difference between "Ready Prepared" Drosophila Food and "Ready Mix" Drosophila Food?
Ready Prepared – An agar based media used by us for all our cultures, also sold in tubes or bottles, both in packs of 10.
Ready Mix – A dry food to be mixed with water, which can be used immediately, sold in packs of either 100g (enough for 20 tubes or 5 bottles), or 1kg (enough for 200 tubes or 50 bottles).
Note: **Ready Mix has a different appearance and consistency to Ready Prepared. It is intended to be used as quick and easy instant food!**

Ready Mix Food, further queries!

Does not set!
Probably too much water added, must be made up as instructed on the pack.

Condensation!
Due to being made up in advance and stored in the refrigerator, should be made up and used on the same day.

Drying out! Food dries out and crumbles, making it difficult to remove the flies from the container.
Food should remain stable for 2 – 3 weeks, however if it does dry out carefully add a little water on to the surface of the media, using a pipette, this should reconstitute it.

Work Schedules For Drosophila

VALUE PACKS A03451 TO A03542

1. Check cultures on receipt for active larvae (look for them 'working' in the food, often visible only by their black mouthparts) and perhaps pupae.

2. Clear the parents by shaking out into an etheriser. Make sure none remain. Examine the parents carefully and distinguish:
   a) The different phenotypes
   b) The sex difference

If now transferred to fresh tubes, these flies can be bred on for further work. It is essential to do this if back-crosses are to be made.
Occasionally, due to rough handling in transit, the flies become trapped by displaced food. There is no way of completely preventing this and we regret therefore that we can entertain no claim for free replacement in this event. Such cultures will, of course, still produce new adults.

3. Place the cleared cultures in the 25°C incubator or nearest equivalent, having noted the date of setting-up marked on them. Check progress daily. Adults may be expected to emerge from 9-10 days after setting-up, bearing in mind that cooling in transit retards development to some degree.

4. As soon as the first new adults appear, discard them, then clear the cultures night and morning. Segregate the sexes of each strain into separate food tubes, continuing for 3-4 days if necessary to accumulate sufficient parent flies for the crosses.

SEGREGATED MALES AND FEMALES A03591 TO A03761 START HERE

5. Etherise these accumulated virgin females and males and set up crosses in tubes with food and yeast: 3 females to 3/6 males, or up to 5 females if numbers permit. Ensure reciprocal crosses are included, e.g. wild type males x vestigial females, vestigial males x wild type females. Mark each tube with cross details and date.

READY MADE CROSSES A03773 TO A03827. START HERE

6. After 5 days, check for F_1 larvae and remove the parent flies. They may be discarded or transferred to new tubes for additional crosses.

7. On the tenth day (at 25°C) the F_1 should begin hatching. Every two days, clear the emergent flies, classify and count. Set up crosses for F_2, say 3 from each original, using similar numbers of males and females as in (5), BUT NOTE THAT THE LATTER NEED NOT BE VIRGIN. Discard into 'fly morgue' all F_1 flies not used in F_2 crosses.
   Alternatively, if back-crosses are required, clear F_1 night and morning to ensure virginity of females. Cross with recessive parent type bred on from original stock cultures (again, ensure reciprocals).

8. Whilst this work on the F_1 continues, obviously F_2 crosses should be checked daily. After 5 days, clear all adults and discard.

9. When the F_2 begins to emerge, clear, classify and count every other day for 8 days after the first emergence. This extended period is essential, not only for maximum numbers, but also to allow for slower emerging mutants such as vestigial.

10. Discard all F_2 flies.

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