



## Drosophila Medium

M224

Drosophila Medium is recommended for the cultivation of Drosophila.

### Composition\*\*

Ingredients	Gms / Litre
Brewers yeast, dried	13.300
Corn Meal	133.000
V-8 vegetable juice	180.000
Methyl parahydroxybenzoate	0.093
Agar	13.300
Final pH ( at 25°C)	6.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 34 grams in 100 ml distilled water. Heat to boiling with constant stirring for several minutes. Dispense the medium into containers as desired to obtain required depth.

### Principle And Interpretation

Drosophila medium is prepared according to the formulation by Demerec for cultivation of Drosophila (1). *Drosophila melanogaster* is one of the best-researched insect in the world. It is extensively used by biologist for experimenting and researching heredity and genetics as its genome consists of only four pairs of chromosomes and the fly's life cycle is completed in eight to ten days only.

Dried Brewers yeast supplies vitamin and amino acid mixture for the growth of Drosophila. V-8 vegetable juice serves as a source of essential nutrients such as magnesium and potassium ions. Corn meal provides fructose as main carbohydrate source for cell proliferation. Low pH of the media will help to suppress bacterial growth and methyl parahydroxybenzoate serves as inhibitor for bacterial and fungal contaminants.

For the culture of Drosophila, molten medium is poured into bottles or flasks to a depth of about 2 inches. After the medium is poured into bottles, strips of filter paper cut to the length of bottle are inserted to provide a place for the flies to pupate. The surface of the medium is then inoculated with heavy suspension of live yeast to induce the adult flies to lay eggs. A male and female fly possessing the desired genetic characters are then added to the bottles for mating. The cultures are incubated for about 12 days during which the flies begin to emerge.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.33% Agar gel.

#### Colour and Clarity of prepared medium

Yellowish brown coloured, opaque gel

#### Reaction

Reaction of 34.0% w/v aqueous solution at 25°C. pH : 6.0±0.2

#### pH

5.80-6.20

## Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

## Reference

1. Dermerec, 1950, Biology of Drosophila, New York: John Wiley and Sons, Inc.

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### Disclaimer :

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