Frankel, A. W. K. and G. E. Brosseau, Jr. University of Iowa, Iowa City, Iowa. A Drosophila medium that does not require dried yeast.

In the past, our laboratory has experienced difficulty with the standard cornmeal-molasses medium. Occasionally we had periods in which pair matings and low viability stocks grew poorly. This appeared to be correlated with an aging

of the dried, heat killed Brewers yeast. In addition we have experienced difficulty in obtaining fresh supplies of dried yeast. Therefore we decided to find a non-spoiling substitute for the yeast. The substitute finally adopted is a mixture of yeast extract and non-fat dry milk solids. Yields using the recipe given below are as good or better than those we obtained using the yeast formula. We have tried three brands of yeast extract and found no difference between them and no evidence of deterioration with age (the oldest yeast extract was more than three years old). While this recipe is slightly more expensive than media using yeast, we feel its advantages offset the extra cost.

Recipe for cornmeal-molasses-yeast extract-milk solids medium.

Ingredient	Amount for 150 quarter pint bottles 1.	% of total water
Water	4286.6 ml	79.62
Agar	30.3 gm	0.56
Molasses	692.7 ml	12.87
Cornmeal	578.7 gm	10.75
Milk Solids ² •	118.3 gm	2.20
Cold Water	930.3 m1	17.28
Yeast Extract	30.3 gm	0.56
Boiling Water	166.7 ml	3.10
Acid Mix ³ *	60.3 ml	1.12

^{1.}About 37,800 cc of medium.

Directions for preparing the medium:

- 1. Dissolve agar.
- 2. Reduce heat and add molasses (We use sorghum syrup because of local availability).
- 3. Dissolve yeast extract in boiling water.
- 4. Make a slurry of cornmeal and milk solids using the cold water.
- 5. Stir the commeal-milk slurry into the agar-molasses mixture and then add the yeast yeast extract solution (adding the latter earlier makes a deficient medium). Heat to $80-82^{\circ}$ C.
- 6. Turn off heat, stir in acid mix and pour.

<u>Grossfield, J.</u> Purdue University, Lafayette, Indiana. Dental Rolls for pupation sites.

To facilitate the collection of large numbers of virgin adults of species less productive per bottle than D. melanogaster, I have been using dental rolls as pupation sites. Dental rolls (3/8" by 1-1/2") are

poked into the food medium when 3rd instar larvae begin to crawl and left until the rolls are full of pupae. The pupae-laden rolls are then poked into the surface of a fresh bottle of food. Generally two bottles of larvae result in one of pupae on rolls (6-7 rolls/bottle). When adults emerge they can be shaken out without the accompaniment of liquified medium. This method works well with a reasonably large number of species, with the trenchant exception of D. virilis. The rolls are available from Johnson and Johnson at 2000 for \$6.50 (suggested price as of March 6, 1967). A dispenser is available if one feels the need.

^{2.}Carnation non-fat dried milk solids were used but any brand should be suitable.

^{3.} Propionic-Phosphoric acid mix (from E. B. Lewis DIS 34:117) was used as a mold inhibitor.