

BREEDING METHODS

Culture media

Bridges, Calvin B. Food formula The food formula in use in the Pasadena laboratory by all workers is that published in Amer. Nat. 66: 268, 1932.

Water.....75.0 c.c.
 Molasses (free from SO₂) 13.5 c.c.
 Cornmeal (coarse yellow) 10.0 grams
 Agar-Agar 1.5 grams

About 60 c.c. per 1/2 pint culture bottle.

Other recommendations in the above paper in Amer. Nat. still hold substantially correct.

Gottschewski, G. Culture medium. Normalfuttermenge für ca. 60 Kulturflaschen.

2000 ccm H₂O und 30 g Agar kochen lassen, bis Agar gelöst, dazu 125 ccm H₂O und 375 ccm Sirup. Schliesslich 600 ccm H₂O und 400 g Maismehl zusetzen, das Ganze zwei bis drei mal aufkochen lassen, beim letzten Mal werden 1-3/4 g Nipagin-M hinzugefügt (Nährmittelfabrik J. Penner A.G. Berlin-Schöneberg; konservierende Wirkung verhindert das Schimmeln der Kulturen). Das Futter wird dann in Flaschen (vgl. Fig. 1) abgefüllt; dazu kommen einige Tropfen milchiger Emulsion von Bäckerhefe in H₂O gelöst, Krepp-Papier und Zillstoff-Wattekorken. Vor dem Abfüllen wird alles in 150° sterilisiert (elektrischer Sterilisator). Koch- und Abfüllgefässe (über letztere vgl. DIS-1:57, Apparat, C. Stern) sind so bemessen, dass gleichzeitig eine Futtermenge für 300 Flaschen gekocht werden kann. Bis zum Gebrauch werden die Flaschen in Eisschränken aufbewahrt.

Gravett, Howard L. Food formulae The banana-agar-yeast food is used for most of the experimental work. The formula for the food is as follows: 100 c.c. of soft water, 100 grams of well-ripened banana and 2 grams of agar-agar. When the food is cool, a small pinch of pulverized yeast foam is added. It is then allowed to stand at 25° for about 24 hours before using.

The cornmeal-sorghum-agar food is used for maintaining the fly stocks. The formula used in the laboratory is as follows: 1155 c.c. of water, 22.5 gm. of agar-agar, 210 c.c. of sorghum and 120 gm. of cornmeal. One thousand c.c. of water is boiled and the agar added. The remainder of the water is mixed with the cornmeal to which the sorghum has already been added. This latter mixture is then added to the water and agar, stirred well, and placed in bottles.

Wilbur M. Luce adds 5 c.c. of sorghum to the regular banana-yeast-agar food and finds it very satisfactory for experimental work. He also tilts his vials after placing food in them in order to allow it to harden on a slant. He claims this lessens the possibility of gas formation and also increases the surface for yeast growth. (University of Illinois)