

A REARING MEDIUM FOR MICROPHAGOUS NEMATODES

C. C. RUSSELL

Department of Entomology, University of Florida, Gainesville

Colonization of microphagous nematodes is necessary in order to obtain single-species populations for studies involving morphology and biometrics. Most of the media previously developed have yielded unsatisfactory results or were difficult to prepare. Therefore, one of the balanced human dietary compounds¹ was tested as a balanced nutrient base for an agar rearing medium.

The plain dietary powder was used to prepare nutrient media in two ways. In the first, dietary agar was prepared by adding 320 grams of powdered dietary and 2 grams of agar to 1 liter of water and was autoclaved for 15 minutes at 121°C. The solidified medium was cut into blocks which were placed on plates of water agar. Nematodes were "picked" directly onto the dietary agar blocks.

In the second method .2 to .5 grams of dietary powder were sprinkled onto cooled water agar plates which had been agitated to delay solidification. This technique has the advantage of reducing the risk of deterioration of constituents due to autoclaving, and it is simpler than the agar block technique.

Several species of the nematode genera *Bunonema*, *Diplogaster*, and *Rhabditis* were successfully colonized utilizing both of the above techniques. Bacteria introduced with the nematodes grew profusely on the medium. Whether the nematodes fed upon the medium itself or solely on the bacteria was not determined. However, specimens of *Rhabditis* were observed apparently feeding in and around dietary granules in the agar prior to the establishment of bacterial colonies.

Attempts to colonize *Butlerius* spp. and one other diplogasterid of known predatory habit were unsuccessful with either of the above techniques.

This study was supported in part by National Institute of Health Project WP00508-01.

¹ Plain Metrecal Powder Dietary for Weight Control (Mead Johnson and Company, Evansville 21, Ind.). It is likely that other brands of dietary will work as well.