Book Review

American Type Culture Collection Methods. I. Laboratory Manual on Preservation Freezing and Freeze-Drying as Applied to Algae, Bacteria, Fungi and Protozoa. H. Hatt, editor. American Type Culture Collection, Rockville, Md. 1980, 51 p., \$4.00.

This manual details the procedures used by the American Type Culture Collection staff for preservation of microorganisms. The terms used are carefully defined in order to minimize misunderstandings, and the various types of materials used are identified by brand, catalog number, and address of the supplier. There is a disclaimer that citation of a product is not a recommendation, but simply an indication that the product has been found to be satisfactory. The rationale used to select procedures and supplies is not given. However, anyone who is reasonably astute can make appropriate substitutions. For example, the solvent used in dry ice baths is ethyl cellosolve, but there are a number of other solvents that might be equally satisfactory. Since the American Type Culture Collection is in business to preserve cultures, it would be interesting if some statistics were included to show the effectiveness of the preservation methods. Some explanation of the basis of selection

of methods should be given. For instance, why are some bacteria preserved with skim milk and others preserved with sucrose?

This manual is amply illustrated with clear photographs showing equipment and techniques. Each of the procedures is described in detail, including preparation of ampoules and vials, formulation of cryoprotectants, preparation of cultures, and estimation of viability. A separate section is devoted to describing various methods that are used for freezing and freeze-drying of samples, but the procedures applicable to specific genera or groups of bacteria or fungi are not identified. Specific procedures for preserving about 90 genera of protozoa and algae are given in an appendix.

This manual should be of interest to anyone concerned with maintaining culture collections of microorganisms. It should be particularly valuable to those who are in the process of establishing methods for the preservation of microbial cultures.

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