

INTRODUCTION

The purpose of this introduction is to acquaint the user with the general outline of the methods. Each method carries the title and subject of the method on the first page, along with a number-letter combination designating that method. The numerical portion refers to the type of method, i.e., I for mesophilic aerobic bacteria methods, II for mesophilic yeast and mold methods, etc. The letter portion refers to the specific method, i.e, I-A refers to the standard plate count method for mesophilic aerobic bacteria. Finally, methods which extend over a single page have a page number as a superscript to this designation. For example, I-A-² refers to the second page of the standard plate count method for mesophilic aerobic bacteria. For the date the current accepted or revised method was added, consult the "Table of Contents."

The reader will observe that, in general, a basic uniform outline is followed for each method with respect to such factors as apparatus, media and reagents, procedures, calculations and notes and precautions. An exception is the new section on rapid microbiological methods. Association members believed that only an abstract was necessary for most of the identified methods. However, there may be procedural modifications specific to corn wet milled products. The reader should refer to the specific rapid method test kit instructions for detailed protocols. Rapid methods for both pathogenic and non-pathogenic microorganisms have been included. Rapid tests are becoming an integral part of many food processors' Hazard Analysis Critical Control Point (HACCP) food safety programs. For consumer safety purposes, some rapid methods were developed for detecting foodborne pathogens. Rapid pathogen detection tests only show a positive or negative reaction, however, not the specific amount of the pathogen detected. A negative reaction is presumptive. A positive reaction should be confirmed.

The methods follow the most cost effective procedures. There are often commonly available alternatives to these methods. Throughout this compilation of methods, specific instruments and/or materials are occasionally mentioned for potential use. Mention of any brand or trade name does not constitute endorsement by the Association, neither does it imply that alternatives may not be acceptable.

SAFETY NOTE

The methods in this book are intended for use by individuals properly trained in the safe handling of chemicals, equipment and microbial cultures in the laboratory. Therefore, there are not detailed references to all hazards associated with all materials used in the methods. Certain reagents called for in the manual may require special handling and disposal techniques. Users are counseled to refer to supplier's Material Safety Data Sheets and/or other sources of hazard communications material for specific handling and/or disposal instructions for such reagents. It is possible that viable, pathogenic organisms may be present when testing contaminated samples. Therefore, appropriate laboratory safety practices for handling potentially pathogenic organisms should be followed.