

DEFINITION OF TERMS

Lot: A batch or production unit which may be identified by the same code. When there is no code identification, a lot may be considered as (a) that quantity of product produced under essentially the same conditions, at the same establishment and representing no more than one day's production; or, (b) the quantity of the same kind of product from one and the same manufacturer available for sampling at a fixed location.

Sample: The total number of sample units taken per lot for analysis. The number of sample units taken is usually between 5 and 60 drawn at random from each lot.

Sample Unit: Usually a consumer size container of the product, and should consist of a minimum of 100 g (mL), unless stipulated in the method, or requested in the specific commodity sampling plan. Each sample unit may consist of more than one container in order to meet the size specifications of the sampling plan.

Analytical Unit: That amount of product withdrawn from each of the sample units (that constitute the sample) for analysis. The analytical units may be tested individually, or composited as directed in specific methods or sampling plans.

Plate or Direct Counts (CFU/g or CFU/mL): Plate count methods provide a direct count of living organisms expressed in CFU/mL or CFU/g (colony forming unit (CFU)) and estimate of the number of viable microorganisms in food according to the medium employed and the time and temperature of incubation. Each colony represents the minimum number of separable cells on the surface of or in semi-solid agar medium which gives rise to a visible colony of progeny on the order of tens of millions of cells in number. Each colony that appears on the agar plates can arise from a single cell, pairs, chains and clusters of cells.

Most Probable Number (MPN): See MFHPB-19. MPN values are estimates (statistical in nature), while plate counts are direct counts of living organisms expressed in CFU/mL. MPN values are, however, particularly useful when low concentrations of organisms (<100/g) are encountered in such materials as milk, food, water and soil where particulate matter of the matrix may interfere with obtaining accurate colony counts. Serial dilutions of the sample are prepared and inoculated into a series of 3 or 5 tubes of liquid media. Tubes that show a positive reaction, i.e. growth with gas formation, are usually inoculated into another series of selective or differential liquid media and/or plated onto selective agars. Numbers of organisms in the original sample are determined by the use of standard MPN tables.