4 Typical seasoning formulations
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4.1 Introduction

The purpose of this chapter is to present a variety of seasoning formulations that typify specific products and that exemplify the use of a variety of ingredients in various applications. It is virtually impossible to suggest seasoning formulations for the myriad of products in which they might be used, since it is impossible to anticipate local tastes, current food 'fads', ethnic preferences and the like.

Therefore while representative of the various applications cited, the formulations included in this chapter are rather generic in nature. We leave it to the interested technologist to start with these as appropriate, but to modify the specific flavor, color, texture and functional attributes for the particular challenge at hand.

4.2 Standardization and measurement

4.2.1 Organoleptic properties

Organoleptic properties – those attributes of foodstuffs perceived by the senses and typically difficult to quantify objectively (e.g. flavor, aroma, texture, 'mouthfeel') are the critical determinants in the acceptability of foods and in the consumer's repeat purchase. (Price and/or value is also critical, but is more the subject of a marketing text.) A lack of consistency or uniformity from batch to batch inevitably results in a lack of sales, since the consumer cannot depend on the product to be what he or she expects based on past purchases. Accordingly, the selection of ingredients for a seasoning, and the method of combining these ingredients must be controlled tightly to ensure that the desired level of uniformity is achieved consistently.

To this end, a detailed quality assurance program is required as a primary basis for communication between the ingredient vendor and the seasoning manufacturer, and between the manufacturer and the ultimate user of the seasoning. The seasoning manufacturer is, therefore, the focal point in this important quality chain.

Specifications for ingredients must be sufficiently detailed to provide the degree of consistency required from batch to batch or lot to lot. However,
the degree of detail ought not to be greater than necessary to achieve the desired level of consistency. As specifications become tighter, and thus more difficult to achieve, availability declines and cost rises. Specifications should therefore be realistic for the task at hand. If, for example, in a particular application, Malabar, Lampong and Brazilian black peppers have all been found equally acceptable, any one specific variety should not be specified to avoid limiting availability should there be a crop problem in one (or more) location. Similarly, if particle size is critical, it should be specified precisely.

As the focal point for all concerned in the production and use of a seasoning, the seasoning manufacturer should obtain the greatest possible detail as to the end use of the seasoning, and the specific organoleptic and other properties required, so that the most appropriate ingredients may be specified. It should go without saying that, once a formulation is approved by the end user, it is an obligation of the seasoning manufacturer to ensure that no deviations in process, formulation and ingredient specification are tolerated.

Organoleptic testing typically used to verify seasoning conformity to specification and consistency includes taste-testing (including aroma-testing in certain applications) and overall mouthfeel sensation when consumed. (Appearance and textural measurements, while potentially organoleptic, are relatively easily measured objectively, and thus are not included here but, rather, under physical properties.) Seasonings may be tasted as is, in a liquid slurry form, or in the final application. It is appropriate to retain a sufficient sample of every batch produced for comparison with future batches, to ensure batch-to-batch consistency. A 'gold standard' might also be retained under special conditions (e.g. when frozen or in an anaerobic environment) as the ultimate standard by which all future productions are judged. Since even the best standard will deteriorate over time, it is appropriate to produce a fresh 'gold standard' from time to time based on the requirements of the end customer. (Both the customer and the supplier might retain samples of the gold standard to facilitate communications and comparisons at both ends of the supply chain.)

### 4.2.2 Color

Seasoning color is frequently an extremely important characteristic to be controlled. Generally, the importance of this property increases as the quantity of seasoning used in the end-application increases. Color of a seasoning coating a salty snack at a level of 7–10% characterizes the end product, and thus is critical, whereas a seasoning used at a level of 0.5% in a brown sauce may leave room for considerable color variation without having any noticeable impact on the end product.

Color measurement is typically by reflectance, using the L, a, b scale of