Chapter seventeen

Recommendations of the workshop group on quality assurance for hake

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17.1 INTRODUCTION

Recognizing the critical relationship between hake product quality (*Merluccius* spp., Merluccidae), consumer satisfaction, and industry benefits, the participants in the workshop on hake quality have developed a set of guidelines for improving market opportunities for hake products. These recommendations are based on the principles of quality assurance — a comprehensive approach to quality control designed to manage hake quality throughout the entire production, processing and distribution process (i.e. 'from ocean to plate') (Gorga and Ronsivalli, 1988). In this case, however, quality control means more than reaching some minimum level of wholesomeness (i.e. a minimum level of quality which ensures that human health is not jeopardized). Rather, it means ensuring that hake products have a level of quality characteristics consistent with improving consumer enjoyment and expanding market opportunities. It also means developing standards and warranties that guarantee product quality.

This chapter is divided into three sections. The first section addresses quality and marketing issues that would affect development of quality-assurance programmes for hake. The second section lists the workshop's recommendations for developing comprehensive quality-assurance programmes. The third and concluding section discusses how these recommendations could be implemented as part of a marketing management plan.
Quality-assurance programmes for seafood are attracting greater interest due to consumer concerns over seafood safety and the development of international standards governing levels of seafood quality. For groundfish species such as hake, quality-assurance programmes can play a significant role in improving product quality and generating new market opportunities. Although hake species exist in several oceans and have relatively diverse life histories, they share many intrinsic product characteristics (i.e. pre-harvest characteristics) which affect the attributes of the processed and marketed product. In many cases these intrinsic characteristics influence sensory properties which determine consumer acceptance and enjoyment (e.g. taste, texture and appearance). Because of these relationships, it is important to understand which market-related quality traits are affected by intrinsic characteristics and how these characteristics could be controlled as part of a quality-assurance programme.

Most stocks of hake have a number of intrinsic attributes which can affect product and sensory qualities. The most important of these characteristics include (1) the hake’s relatively soft flesh, (2) the presence of a ‘fat layer’ located laterally beneath the skin, and (3) infestations of parasites including myxosporidean parasites which are not only unsightly but in some stocks are associated with high levels of protease enzymes (e.g. Peruvian hake, *M. gayi peranus*, and North Pacific hake, *M. productus*).

The problems related to these intrinsic characteristics, including an unsightly product appearance, bruised or mushy flesh and a product liable to rancidity and reduced shelf life, can be controlled by adoption of quality-assurance programmes during capture, processing, distribution and retailing. In some cases, effective control may also require that fisheries agencies implement management practices that modify the nature or distribution of these intrinsic characteristics or affect the way these characteristics are controlled by the fishing industries targeting the stocks.

Various features of hake products and markets will influence the design and success of quality-assurance programmes. Included among these characteristics is the spatial and temporal variability of intrinsic product attributes. For example, products processed from North Pacific hake which have not recovered from the rigours of spawning may show a marked decrease in quality. It has also been reported that parasite levels in many hake stocks are related not only to geographic location, but to stock size and age class distribution. Because seafood markets are concerned about variation in product quality, quality-assurance programmes must be designed not only to improve average quality but to reduce spatial and temporal quality variation.