

EFFECT OF VARYING WATER CONTENTS IN OIL PACKED SARDINE AND MACKEREL

Although standard methods are available (Anon, 1964) for processing sardine and mackerel, canners adopt techniques befitting their need and facility with the result that very often the products fall short of the specifications prescribed for such products. The most serious defect noticed in these products is the highly variable water content in the fill oil which can be regulated only by a process of pre-cooking after or before brining of the raw material. The present note summarises the observations made in experiments on cans having varying water contents on shelf life of canned material.

Raw material used in the experiments was collected from Cochin in the fresh condition and brought to the laboratory under ice. Sardine and mackerel thus obtained were packed in unlacquered cans

according to the recommended procedure but under altered conditions of pre-cook to provide products of varying water contents. Analyses of the incubated cans were carried out every month and the overall quality of the product judged organoleptically. Moisture and free fatty acids (FFA) were estimated according to AOAC (1955) and peroxide value (PV) by the method of Lea (1938).

The changes in physical and biochemical properties of canned sardine having 5% and above 25% of water in filled oil are shown in Table I. Samples having higher percentage of water in the can showed comparatively lower shelf life developed black stain on the can within 10-15 days of storage (Fig. 1) and showed comparatively higher rate of increase in PV and FFA in oil during storage. On the other

