

THE BIRTH OF A RATION

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"The daily entitlement of food per person or forage per animal" is the definition of a ration.

(1) There are five stages to the production of a ration or ration component used for feeding service personnel. It is a long and involved process which results in an item designed to provide the user with the necessary balance and quantity of fats, carbohydrates, proteins, vitamins and minerals. The five stages are:-

- (a) Identification
- (b) Determination of the nutritional and physiological requirements
- (c) Entitlement
- (d) Acceptability, and
- (e) Production.

The identification aspect of rations is further divided into two types. The identification of a product which may be of value within a ration and the identification of a particular requirement. Feeding the crews of small ships in heavy weather, is an example of the user identifying a problem. In this case, the user approached the Armed Forces Food Science Establishment (AFFSE) and requested assistance in solving the problem. The identification of a product which may be of use, may involve a civilian producer approaching the services, a product picked from a supermarket shelf or the development of a completely new product.

The second and third stages, the nutritional and physiological requirements, and the entitlement aspects are closely associated. The nutritional and physiological requirements are as laid down by the National Health and Medical Research Council (NH & MRC). The booklet (2) NH & MRC recommend daily allowances of nutrients according to age, sex, weight and level of physical activity. Proteins, vitamins, minerals and energy are the nutrients involved. In addition the entitlement aspect is studied to ensure that components are complementary and that correct quantities of various food types are issued.

The fourth stage concerns both the acceptability of a ration by the consumers and of the product in relation to other requirements such as storage. The acceptance by consumers is determined initially by tasting within the AFFSE. This may indicate potential problems and lead to product modifications such as recipe changes. After passing this first hurdle, a wider user-trial is conducted within the environment in which the final product will be used. For example, field rations are tested on field exercises. This is important because, that which is acceptable to the taste panel at AFFSE, may not be acceptable under field conditions due to preparation factors such as the time available and method.

The other aspect of acceptability is that the food must meet various stringent specifications, including storage for two years at 30°C, robustness during transport, as well as being light in weight while giving maximum nutrient benefit. The weight factor becomes more obvious when service personnel are expected to carry their rations plus other equipment for extended periods of time while involved in strenuous activities.

Following the stages described above, the final stage, production is reached. The approved ration or item is produced on a large scale and incorporated in service feeding procedures. Production may be carried out by civilian contractors or by facilities available within the Defence Forces.

FOOTNOTES

- (1) Joint Services Staff Manual — Australian
- (2) Joint Services Glossary (JSP (AS) 101) May 1970
- (3) Metric Tables of Composition of Australian
- (4) Food by Thomas and Corden 1977.



A man who likes his rations - Wee Jock Armstrong