

1

3,058,828

FOOD SUPPLEMENT COMPOSITION

Robert L. Lindblad, 2457 Elm St., Salt Lake City, Utah
No Drawing. Filed Sept. 27, 1960, Ser. No. 58,628
3 Claims. (Cl. 99-23)

This invention relates generally to concentrated food-stuffs and in particular to a new composition of matter providing a food supplement adapted for use in survival or other situations in which a normal diet of food is not available.

The use of specially prepared concentrated foods, natural or synthetic, to supplement or temporarily substitute for a normal diet is well known. A great deal of work has heretofore been done in this field mostly directed to preparation of either a concentrate useful in emergency situations to stave off fatal starvation or a more deluxe ration, only relatively concentrated, for use as a light weight supply of food for hunters and the like. In the former class fall the extremely concentrated materials, commonly fortified or supplemented with vitamins. The latter class comprises primarily dehydrated materials requiring the addition of heat and water to furnish a palatable portion.

The present invention is concerned primarily with food stuffs usable in survival or other emergency situations such as in the first class mentioned above. However, the food stuff of the invention is designed to sustain human life over an extended period without undue strain on health or body and additionally to be so palatable as to be adapted for use in lieu of the more luxurious diets of the second class.

It is, therefore, a primary object of this invention to provide a lightweight food supplement capable of sustaining life over a relatively extended period without deleterious effect on any of the bodily functions.

A second object is to provide such food supplement in a form that resists deterioration over lengthy periods, up to decades, to the end that a permanent store of emergency rations may be provided.

A further and extremely important object is the provision of a food supplement as described above that is palatable in either a dry or wet form without change in its beneficial characteristics.

Necessarily related to the above objects is the still further object of providing a food supplement that supplies the basic bodily requirements as to protein, chewing, bowel activation and caloric intake; and at the same time is capable of having mixed therewith without change in either its chemical or physical characteristics, desirable vitamin bearing concentrates.

As this specification proceeds, other objects and advantages will become apparent to those skilled in the field to which this invention pertains.

In its broadest aspect, this invention attains the foregoing objects by the provision of a food supplement containing as basic elements, in carefully regulated critical proportions, animal protein, sugar, methylcellulose, non-fat dry milk substance and flavoring.

Protein is provided in a minimum amount to satisfy bodily protein needs and additionally at least 10% of bodily caloric needs.

Sugar is provided for the obvious reason of its caloric content and in a dry form to prevent introduction of moisture into the mixture in quantities deleterious to other ingredients of the complete supplement.

Methylcellulose is provided in an amount sufficient to provide a chewable substance in dry form and as a nutrient and primarily a filler in either wet or dry form. Additionally the hydropscopic nature of this substance aids in

2

keeping the other ingredients in dry form and prevents caking.

The non-fat dry milk solids provide calcium as well as enriching the general mixture.

5 Flavoring is supplied for the obvious reason of contributing to palatability and additionally as a vehicle for combined sugar, salt, lecithin, color and certain vitamins. In a preferred embodiment, the flavoring is processed cocoa which, gives the important additional advantage of providing bowel stimulation.

10 As previously noted, concentrated food supplements are known; and the use of one or more of the above listed ingredients in various random mixtures is known. However, in all prior mixtures palatability and longevity of the mixture has not been all that is desired. For instance, a mixture carrying too much protein simply cannot be partaken, particularly in dry form, over any extended period because it becomes a sticky mess that coats the mouth. This problem is even more acute in situations where water is unavailable as a diluent or vehicle for the food. Attempts to improve palatability by adding moisture to the mixture result in little increase in palatability but contribute a marked decrease in keeping quality due to the propensity of proteinaceous material to disintegrate in the presence of moisture.

15 Granulated sugar in the pure state acts only as a sweetener hence can be taken in any quantity suitable to individual taste. However, when combined in the supplement of the present mixture, must be maintained within careful limits. Otherwise, for reasons unknown to me, it renders the mixture unpalatable.

20 Methylcellulose is a synthetic gum noted for its bulk and solubility in water. This substance is frequently used in small dosages as a laxative and also as a vehicle for external medicants. However, it is not generally regarded as edible and in the pure state is almost physically unpalatable due to its tendency to jell when warmed as occurs when eaten dry. With powdered animal protein matter, the result is a mixture that simply cannot be swallowed especially when the palate is dry as often occurs under survival conditions.

25 Chocolate flavoring follows much the same pattern as methylcellulose insofar as palatability is concerned.

30 Non-fat milk solids are a necessary ingredient due to protein and calcium content, but they are themselves highly unpalatable in the dry state and only difficultly palatable when dissolved in water as a sole drink over an extended period. Moreover, this ingredient does not furnish much in the way of nutrient beyond calcium.

35 From the preceding discussion it is evident that the present invention of a long-keeping, palatable food supplement depends not only upon the provision of certain ingredients, but also on providing such ingredients in certain proportions and in a particular physical state.

40 During development of my food supplement extensive experiments were conducted and it was through them that my discovery was made that if, in addition to a quantity of items sufficient to meet nutritional requirements, there was provided a certain proportion of ingredients therebeyond, the mixture could be rendered palatable.

45 Obviously, there may be various grades of each of the ingredients. However, my formula is based on the use of chemically pure or acceptable commercial substances of types available on the market. Illustration of this is found in the following example of a highly successful food supplement.

50 A food supplement was prepared using the indicated ingredients and proportions.

70