Organic Health Food for Designing Rejuvenated Bio Skincare Formulations Employing the Power of Chemopreventers

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Abstract

Organic food is defined as a product of a farming system which is produced by avoiding the use of man-made chemical fertilizers, pesticides, growth regulators and livestock feed. The system should basically rely on crop rotation, animal and plant manure, some hand weeding and biological pest control. Organic fertilizers release the nutrients with time and are less likely to be washed out compared to synthetic fertilizers. Most organic fertilizers are by-products of the food industry and are devoid of synthetics.

We have developed a range of rejuvenated, organic ingredients with a moderate Sun Protection Factor (SPF) value, based on vegetable lipids. They do not cause true allergy (contact dermatitis) as many synthetic compounds, nor the more common photosensitive irritation. The Rejuvenated Biolipid Series has an exceptional natural sun protection factor, contains natural antioxidants rendering the lipids more stable than normal recipe engineered lipids, is antimicrobial and has healing properties.

These products will enable us to look naturally beautiful, feel healthier and have the personal satisfaction of contributing to the support of both sustainable agricultural processing and environmentally friendly campaigns.

Introduction

Medicines and food have a common origin. This ancient Japanese proverb is, in one form or another core to the medical folklore of almost all cultures around the globe. Modern science, however, is only now beginning to provide solid scientific evidence for this very concept. There is an ample body of evidence that certain vitamins and particularly their antioxidant activities can help prevent or delay the onset of diseases such as heart disease and cancer. However, a host of nonnutritive components of plant foods, especially polyphenols and phytoestrogens have come to be recognized as “chemopreventers” (i.e., naturally appearing chemical components with the strong capacity to prevent certain diseases).

We should all strive for enhancing individual beauty without threatening the beauty of our planet. In recent years natural products have grown from a niche segment to one of the fastest growing categories in personal care. In fact natural personal care (NPC) has outperformed other natural product segments such as functional foods and supplements. Growth of NPC will continue following the growth of the nutraceutical market as the consumer drive continues towards natural products offering more value for money.

Although all attempts are being made to replace petroleum-based products with natural ones, the substitution is far from complete, owing to the lack of in-depth knowledge of the raw materials as well as product formulations and stability. Application of natural oils and fats was severely restricted due to oxidative degradation of lipids resulting in malodours, colour changes, viscosity increases, and changes in specific gravity, solubility and appearance. We recently described the technology of development of a unique means of stabilization of exotic butters and natural oils, thus avoiding any cumbersome application of antioxidants and avoiding heating, homogenisation, extra labour, and handling of additional powders (Cosmetic Science and Technology 2005).

While using natural oils and butters, one can use either the properties of triacylglycerol constituents or nontriacylglycerol components (chemopreventers) or both as per the specific requirements of the product formulation in question. This paper deals with the art of engineering organic lipid products employing both the above characteristics.