

Use of Vegetables in Premium Dog Food Versus Human Malnutrition

Paul Bond Jr*

Department of Natural Science and Mathematics, Shorter University, Rome, GA, USA

***Corresponding Author:** Paul Bond Jr, Department of Natural Science and Mathematics, Shorter University, Rome, GA, USA.

Received: February 27, 2020; **Published:** March 02, 2020

Müller and Krawinkel (2005) estimated that in developing countries over 250 million people have deficiencies of micronutrients. Some of these deficient micronutrients include iron, iodine, zinc and Vitamin A. Vitamin A deficiency manifests itself as reduced hemopoiesis and immune function [1]. In contrast to this, recent reports have indicated that over \$3.4 billion of carrots and \$1.01 billion worth of sweet potatoes were used in pet food formulations in 2018 [2]. While free market forces are excellent in determining how to use and distribute resources efficiently, sometimes the ethics of the end use of these resources are overlooked.

The underlying issue is one of simple nutrition. The National Research Council stated the recommended allowance for protein for adult dogs at 25 grams per day [3]. This presents a difficulty for pet food formulations as most animal proteins are 50 to 62% crude protein and plant proteins vary from 44 to 60% crude protein, therefore; a diluent is required in order for the formula to balance. In years past, the diluent was usually ground corn or wheat middling. Corn, rice bran and barley are still considered excellent ingredients for dog food [4]. In recent years, increasing amounts of vegetables and fruit have been used, not only as marketing gimmicks but they serve as diluents in these premium and expensive dog foods. As noted by Nestle and Nesheim, the unknown factor in any grade of dog food is that the underlying ingredients are basically the same regardless of price [5]. Therefore, it appears that the presence of carrots or sweet potatoes in a dog formulation is superfluous. Recently, concerns have been raised over the use of human-grade food as ingredients in pet food [6,7].

On the other hand, deficiencies of micronutrients in humans has been treated successfully with supplements and fortified foods [8]. Unfortunately, there is evidence that these fortified foods and supplements have problems in supply and distribution [9]. Therefore, it was proposed that food based strategies be developed to improve micronutrient status of individuals in at-risk populations [10].

In the opinion of this editor then, even in a free market society where resources follow the highest price, more should be done to insure the distribution of micronutrient rich foods such as carrots and sweet potatoes to at-risk populations rather than their use as a diluent in pet food. While companion animals can be significant parts of family life, surely the survival and health of our fellow humans should present a higher priority.

Bibliography

1. Olaf Müller and Michael Krawinkel. "Malnutrition and health in developing countries". *Canadian Medical Association Journal* 173.3 (2005): 279-286.
2. Tim Wall. "While many fruits and vegetables are included in traditional kibble formulations made on extruders, other technologies have become available to the pet food ingredient industry". *Pet Food Industry Magazine* (2019).
3. National Research Council. *Your Dog's Nutritional Needs. A Science-Based Guide for Pet Owners*. National Academy of Science, Washington, D.C (2006).

4. Maria RC de Godoy, *et al.* "Alternative Dietary Fiber Sources in Companion Animal Nutrition". *Nutrients* 5.8 (2013): 3099-3117.
5. Jane E Brody. "The Truth About Cat and Dog Food". New York Times (2010).
6. P Deng and KS Swanson. "Companion Animals Symposium: Future Aspects and Perceptions of Companion Animal Nutrition and Sustainability". *Journal of Animal Science* 93.3 (2015): 823-834.
7. Kelly S Swanson, *et al.* "Nutritional Sustainability of Pet Foods". *Advances in Nutrition* 4.2 (2013): 141-150.
8. I Darnton-Hill and R Nalubola. "Fortification Strategies to Meet Micronutrient Needs: Successes and Failures". *Proceedings of the Nutrition Society* 61.2 (2002): 231-241.
9. Z Weise Prinzo and B de Benoist. "Meeting the Challenges of Micronutrient Deficiencies in Emergency Affected Populations". *Proceedings of the Nutrition Society* 61.2 (2002): 251-257.
10. LH Allen. "To What Extent Can Food-based Approaches Improve Micronutrient Status?" *Asia Pacific Journal of Clinical Nutrition* 17.1 (2008): 103-105.

Volume 15 Issue 4 April 2020

©All rights reserved by Paul Bond Jr.