

The Scoop On Vitamins

In today's world of commercial feeds, vitamin deficiencies are relatively easy to avoid. We have formulated chick starter, Layer feed, and so forth. Which – when fed as the only source of food intake – provide a complete, nutrient-rich diet for our birds. Vitamin deficiencies may arise when we go overboard with treats or scratch, making our birds not quite as hungry for their nutritious pellets.

Other issues which can cause problems with vitamin absorption are illnesses and their ability to induce malabsorption, as well as specific medications we may use to treat these diseases. For example, the product we all use for coccidia prevention and treatment called Amprolium (Corid) is a thiamine analog. Meaning it blocks the vitamin Thiamine (Vitamin B-1) which the protozoa coccidia need to thrive.

I have explained why a vitamin deficiency in your chicken may occur, but it is also important to understand why each specific vitamin is necessary, symptoms we may see in each vitamin deficiency, feed items that contain these specific vitamins, and therapeutic agents that can help any shortcoming.

"A Look At Vitamin Deficiency in Poultry"

VITAMIN A – Vitamin A is essential for adult birds to maintain general health, egg production and the all-important hatchability of these precious eggs. In chicks, it is crucial for their growth. Poultry lacking in Vitamin A may take weeks to show symptoms of a severe deficiency. First signs will be general ataxia, ruffled feathers, and weight loss. Eventually, this will manifest into what appears to be a chronic respiratory infection, including discharge from nostrils, and swelling around eyes. Vitamin A deficiency is not something chickens will often experience. However, proper sources of vitamin A include alfalfa meal, kale, fish oils, blended carrots, and the green grass in your backyard!



VITAMIN B – Vitamin B, like all other vitamins, is split into several factors. We tend to focus on Vitamin B-1 (Thiamine) and Vitamin B-12 in poultry. Both of these factors play an essential part in helping chickens' nervous system. Symptoms of a vitamin B deficiency will present itself in general weakness of the legs, "walking on hocks," weight loss, loss of coordination, and neck and leg jerks. In chicks, you may see the condition 'star gazing'. Cooked eggs are an excellent source of Vitamin B, as well as an injectable form which can be prescribed by your veterinarian.

Vitamin D – Vitamin D is also called "The Sunshine Vitamin." Vitamin D enables poultry to utilize and metabolize their diet to the full-est extent. In brooding chicks, vitamin D deficiency will present itself in leg weakness, general failure to thrive, and ruffled feathers. Having an all-inclusive UVB light in your brooder may help with a chick's uptake of vitamin D. In adults, you may see rubber eggs or other egg-laying issues. Having a direct source of sunlight is crucial for all poultry to thrive. An excellent source of vitamin D aside from Direct Sunshine is fish oil.

Vitamin E – Vitamin E is essential for reproduction and the health of hatching chicks. Chicks with a vitamin E deficiency will show signs of Muscular dystrophy. These chicks may take 3-4 weeks of a diet low in vitamin E to start showing symptoms of ataxia, muscle weakness, and may be found lying on their side with paralysis before eventual death. The best sources of vitamin E are the vegetable oil, cereal products containing vegetable oil, eggs, liver, legumes and green plants. Any of these feed items may be given to affected chicks and laying hens to increase the hatchability of their eggs, and health of their chicks.

Vitamin G – Vitamin G is also called Riboflavin. Deficiencies of riboflavin cause degeneration of nerve tissue, which may lead to leg paralysis in growing chicks, curled toes, and 'walking on hocks.' Mature adults with a Vitamin G deficiency can pass this on through the egg, which in turn will affect the growth of their hatchlings. Good sources of Vitamin G include alfalfa seeds and yeast.



Vitamin K – Vitamin K is the vitamin which is crucial in allowing blood to clot. Impairment of blood coagulation is the primary symptom of a deficiency. While a vitamin K deficiency is difficult to diagnose just from outward appearances, with a severe lack of Vitamin K, any minor hemorrhage can turn fatal. Similar to vitamin G, hens can pass this deficiency through her egg and chicks can hatch with the like. Some outward signs would be bruising or

hemorrhaging visible to the naked eye from a small bump or fall. Vitamin K deficiency may also develop from the use of sulfur drugs as well. Birds will produce some vitamin K on their own by intestinal synthesis. Coccidiosis, necrotic enteritis, and the use of antibiotics can cause a decrease in this production, leading to the bird being dependent on getting their source of Vitamin K strictly from their diet. Thankfully, Vitamin K deficiency is also a rarity in Poultry. Vitamin K deficiency, if suspected, can be diagnosed with blood work and treated by your veterinarian.

As chicken lovers, breeders, and enthusiasts, we are fortunate that there is a vast understanding of vitamins from studies conducted by feed companies and universities alike. Providing these essential vitamins to our flock has been made easier than ever with supplements which are easily available over the counter at your local feed store. These easy to use water-soluble powders can not only be used as a preventative to keep your backyard flock healthy but also to bring affected chicks and adults back from a deficiency.



Here's to happy & healthy chickens!

~ Gretchen Suggs

Sweetheart Silkies, Inc.

