

## **FEEDING YOUR CHICKENS**

*By Rich Barczewski (January, 2020)*

For those of you who do not know my history, I am a soon to be retired faculty member from a Department of Agriculture and Natural Resources. In preparation for my career, I spent a lot of time in school studying animal science, including monogastric nutrition. That said, I thought it might be helpful to share some of my thoughts on feeding poultry. My reason for doing this is that there is far too much bad information on the world wide web and unfortunately, some folks are actually hurting their birds by the choices they make.

The vast majority of folks who raise chickens depend on commercially available feeds obtained from a local feed store. This is perfectly fine but mistakes happen when people decide to supplement these balanced feeds with extra "treats". The reason I say this is because most commercially available poultry feeds are formulated to be the sole source of nutrition for the birds being fed. That means, it is intended to be the only feed fed. There are obviously some differences amongst the various brands especially regarding ingredients used, however, most feeds are formulated to meet the needs of the class of bird being fed based on the label.

Other things that are unfortunate misnomers among the masses is that chickens are vegetarians, that corn is bad and that soybeans are bad. All of these misconceptions need to be put to bed.

First and foremost, chickens are not vegetarians. They are omnivorous and evolved to eat both plant and animal products in their diets. Peta and the other animal rights groups have done a great job of convincing the masses to believe that it is bad to feed chickens animal products. This view has reached the point that most major feed companies, including many of the commercial poultry companies to stop putting animal products (such as meat and bone meal, fish meal or even animal fat) in their diets. Personally, I see this as a great mistake and I believe it is partially responsible for some folks having more problems with fertility, hatchability and chick vigor in their genetic lines.

Another misnomer is that both corn and soybeans are bad. The truth be told almost all commercial poultry feeds are corn and soybean meal based. The commercial poultry industry relies on both corn and soybean meal for the foundations of their poultry diets. Neither corn nor soybeans are harmful to chickens provided you do one thing. And that is, to use them as parts of a properly balanced ration. Some feed companies have gone as far as listing "grain products" on their label so they do not have to mention corn specifically but rest assured, most poultry feeds contain corn and may contain other grains as well in varying amounts.

Corn is used in feeds as a major contributor of carbohydrates in the diet. Carbohydrates provide the birds with the energy they need to function. Soybean oil seed meal is used to provide proteins which in turn provide the bird with the necessary amino acids to grow and repair tissues and to produce meat. This is a little oversimplified but you get my point.

It would be very difficult (but not impossible) to come up with an affordable ration without these two ingredients. Where people make mistakes is when they decide to feed an overabundance of corn or soybeans as "treats" to their birds. As a matter of fact, feeding treats in appreciable amounts is never a good idea. Let me take a moment to put this in perspective.

Most birds (I'm talking large fowl here) consume about a quarter of a pound (4 oz) of feed per day. Some a little more and some a little less depending upon their physical size. If you are continually feeding treats, in addition to a commercial ration, you are essentially watering down the nutrients in the commercially prepared ration

with the treats. Think of it this way. If your commercial feed contains 16 percent crude protein (plus some Methionine and Lysine which are added amino acids), and you feed your bird a half a handful of cracked corn, or oats, or wheat, as a treat, that half a handful of additional grain changes the amount of commercial feed that the bird can eat. They only have so much capacity for feed in a given day. Now let's assume that that half a handful of cracked corn weighed 1 oz. Cracked corn has at most 9 percent crude protein in it. Because the bird at an ounce of cracked corn, it will most likely now only eat 3 ounces of the commercial feed.

That treat would end up reducing the amount of protein in the overall diet to 14.25 percent. That might not sound like a lot but it could make the difference between meeting the birds' nutritional needs and not meeting it. What are the implications of not meeting the nutritional needs of your birds? It can be reduced growth rate. It could be reduced mature size. It could be lower egg production,

lower fertility, etc. Ultimately it is important to make sure you are providing your birds with a well- balanced, properly formulated feed.

I know many folks in the fancy have birds that they consider to be pets. That is fine, but if you want to remain competitive, limit supplemental treats to very small amounts on an infrequent basis. Feed properly formulated feeds to your birds along with clean, fresh water as that is all they really need to be healthy and productive.

#### **Editor's Follow-up Q&A:**

*★ Should your commercial feed be a "layer" feed?* RB: Most available commercial feeds are layer feeds. Different companies have different feeds available, but in my situation, I currently feed a layer to all my adult birds.

*★ Is adding supplemental grit and oyster shell necessary if you are feeding a [good] commercial layer feed?* RB: There is nothing wrong with feeding grit or oyster shell but in the case of oyster shell, the additional calcium is just not needed if the birds are already on a layer. Grit is helpful only if the birds are given whole grains. If you are feeding a pellet or crumble, or even a mash, it is not necessary.

*★ Can commercial layer feed also be fed to males as their staple feed?* RB: Some might argue that the calcium levels are too high for males but as long as the birds are healthy and do not have any genetic problems, they should be able to handle it.

*★ For those that don't have availability to commercial feed containing animal protein, how do we add it to their diet? Are bugs on the ground in summer adequate? What about the winter months?* RB: There are several ways to include animal protein if you want to. Basically, I have ignored it but sometimes I think it would be better if I included some in the diet. It doesn't have to be a lot. Cat food is one way and giving even a few kibbles a couple of times a week would be helpful. You could also give just a very small amount of fishmeal if you can find it. I've even heard of folks giving a small amount of ground meat but personally I think the feed companies haven't done us any favors by taking these ingredients out of the diet. In many cases, the amounts were very small anyway, less than 5 percent of the total ration.

*★ At what age should you stop feeding "starter", and wean them to adult feed? Is it necessary to use a "grower" in-between the starter and adult/layer feed?* RB: Finally, as far as when to stop feeding starter? Most commercial companies have specific instructions on that. I know Purina recommends that their starter be fed until the birds are 18 to 20 weeks of age or just before you need to put them on layer. Their Start and Grow feeds are about 18 percent crude protein. Other companies may have starter for the first 4 to 5 weeks and then move to a grower. Again, I try to follow their specific programs.