



Frequently Asked Questions

Poultry Webinar March 30, 2010

Keys to a Healthy and Productive Flock: Chicks!

Answers provided by Hank Will, Editor of GRIT Magazine and Dr. Rob McCoy, Vice President of Nutrition for Manna Pro Products.

Brooders & Hen-Raising Chicks

Q: Do brooders need perches?

A: (Hank Will) Not generally. However if you plan to keep your birds in the brooder longer than usual (because it is -20 outside) you might add some low perches so they can express their roosting behavior.

Q: How much space does my brooder need per chick to be big enough to house my chicks until they move outside?

A: (Hank Will) The answer depends on the breed and species. For medium-framed chickens, 0.5 square foot per bird should be plenty adequate at the beginning – you would likely want to up that to about 1 square foot per bird after a few weeks. You can use less space, but you will enhance the chances for cannibalism, fighting and piling losses. Some commercial brooder manufacturers publish capacity numbers in the range of 10 or more chicks per square foot. That is fine for day old chicks, but will become problematic as they grow.

Q: How tall/deep should my brooder be?

A: (Hank Will) Your brooder ought to be 10 – 12 inches deep if you want your birds to be comfortable for the entire brooding period. It will take a couple of weeks for your chicks to figure out how to escape – so when in doubt make the brooder deeper or put a cover on it.

Q: What are the minimum and maximum number of chicks that could share one brooder?

A: (Hank Will) This completely depends on the brooder size. The larger the brooder, the more heat lamps or hoovers you will need. Commercial-sized brooder houses can handle tens of thousands of chicks. You could effectively brood a single chick in any brooder, so long as the chick could easily find the heat lamp.

Q: At what age can my chicks move from the brooder to their outside coop? If I have several breeds in one brooder, will some be ready to go outside before others?

A: (Hank Will) When your birds are fully-feathered, or nearly so, they should be fine to move to the outside coop. You should lower the brooder temp by about 5 degrees a week until the ambient daytime temp is reached (then you can turn off the heat lamp during the day). When you move the chicks outside, move them to their new house and pen them inside for a few days so they will learn to call it home. If you watch the feathering, you don't need to worry about how fast growing the various breeds are. Keep in mind here that if it is still freezing outside, you may want to postpone releasing your young birds or at the very least, keep a heat lamp on in their house.

Q: Do hen-raised chicks need any extra provisions similar to a brooder or will their mother provide for all their needs?

A: (Hank Will) Their mother will provide shelter, heat and will teach them to forage. Obviously, you need suitable quarters for the hen and if you have an existing flock, watch closely to be sure that the hen and her brood have easy access to food and water. If there is any problem, give them a separate run and house until the chicks are feathered out.

Q: Can other bird/poultry species share the same brooder as chicks?

A: (Hank Will) Yes they can when there is plenty of space but it isn't recommended. It is important to keep waterfowl separate from chickens and turkeys (behavior, size and sanitation are the principal reasons) and you should keep chickens and turkeys separate for disease issues, but many people successfully raise them together – some broody turkeys will raise chicken chicks and some broody chickens will raise turkey poults.

Coops, Bedding, Nesting Boxes, Enclosures, Protection, Free-Ranging

Q: If my chickens have a large area of land, will they return to their coop at night on their own? Will they return to their coop to lay eggs?

A: (Hank Will) Yes and no. If you imprint your chickens on their house by penning them inside for a week or so and offer plenty of comfortable perch space and nesting boxes they will consider the place home. Once the chickens claim the house, you can let them roam – you might keep an eye on them as dusk approaches and chase any stragglers in before dark. Watch for a few independent individuals that want to roost in the trees at night and chase them in

too. You may find eggs scattered about – and a secretive, broody hen might set up a nest beneath a dense cedar tree, but for the most part, the flock will lay in the house. If you just release the chickens to the yard in the vicinity of the chicken house, some may take up residence, but many more will probably find favorite roosting trees. And then the owls and coyotes will find your chickens and pick them off one by one.

Q: In order to prevent “escapees,” how tall should my fence be and do you recommend clipping wings?

A: (Hank Will) Chicken runs can be quite successful with enclosures that are around 4 feet tall. I have had good luck using 3-feet of wire mesh topped with a single strand of electric fence wire (pulse charged at about 6500 volts). The electric keeps the coyotes and dogs from jumping in, and since the run is about an acre in size, the chickens rarely fly out, though most could do so. If you concentrate the chickens in ever smaller enclosures, you will want to increase the height of the enclosure or add netting over the top. Wing clipping is perfectly humane (clip only the outer couple of flight feathers) but I prefer not to do it because I figure that some flight ability might save them from dying in a predator encounter.

Q: What should I know about electric fencing?

A: (Hank Will) Electric fencing, particularly electric net fencing makes an excellent and portable containment system for your chickens – and it will keep earthbound predators out as well. Once trained to electric wire fencing, you can use it to keep range birds more or less corralled as long as they aren't too crowded. Electric fencing is easy to set up, requires regular maintenance and relies almost entirely on the psychology of pain to work. Encounters with electric fencing are positively shocking, and therefore memorable. The coyotes in my territory only hit the electric fence once and then they avoid it. Setting up the fence requires posts, conductors (wire or braid that will carry electricity), insulators (keep the electricity in the wire from traveling to the ground through the posts – some posts are also insulators) and a charger. Check out these websites for all kinds of useful information on electric fencing:

<http://www.gallagherusa.com/>,
<http://www.premier1supplies.com/>
<http://www.kencove.com/fence/>.

Q: Of wood shavings, newspaper (shredded?) or hay/straw, which bedding materials are best and which should be avoided?

A: (Hank Will) Go with what you have access to should be the first rule. For the Brooder: If you can get good dry hardwood shavings or small chips (preferably poplar, maple, ash, etc not black walnut) they work very well. Packaging excelsior is also a good initial brooder bedding material. If you are using straw, you would do well to break it up some (place a bunch of it in a clean barrel and shred it with a string trimmer). Newspaper is fine – if you shred it some, it will

offer more traction for the chicks. Ground corncobs are excellent. Avoid slick smooth surfaces and materials such as shredded plastic that has no moisture absorbing capacity. Sawdust isn't the best for chicks in a brooder because ingesting the small particles can easily back up their digestive system.

For the Coop: Larger chickens love to scratch through the litter so feel free to load up the coop with loose straw or mold-free hay. Shredded paper, ground corncobs, hardwood sawdust and mold-free leaves can also be used for chicken house bedding.

Q: How deep should the bedding be and how often does it need to be changed?

A: (Hank Will) Change the bedding as it becomes soiled – a little at a time works fine. Pay particularly close attention to wet bedding – don't let it hang around in the brooder or the chicken house. I let the bedding in the chicken house build up to a depth of about a foot or so by adding more straw regularly. I change the bedding completely a couple of times a year and whenever I detect even a hint of ammonia. Bedding in the brooder gets completely changed with each set of chicks.

Q: Will my chickens be okay in their outdoor coop during the winter?

A: (Hank Will) Yes they will. You need to provide them with a snug house that's both ventilated and relatively draft free. Provide plenty of clean bedding and lots of high-calorie feed and warm water at least twice a day. If the outdoor temperatures dip below about 10 degrees below zero, you might consider offering supplemental heat in the form of a heat lamp and using a heated waterer. Chickens will freeze toes and combs when the temperatures drop into the negative realm for extended periods of time. And the more chickens you have huddled in the chicken house, the warmer they will collectively be.

Q: Can a greenhouse double as a coop or will it get too hot?

A: (Hank Will) A structure such as a greenhouse can work for housing chickens so long as it is properly ventilated. Some folks allow the chickens to run below the benches, which can be a bit messy. Others keep the birds more closely confined. During the heat of summer, it will be critical to monitor the internal temperature of the greenhouse – be vigilant with opening doors, windows and vents and install a shading cloth or coating to the house. In winter you will want to be sure to ventilate the house, which might be an issue if you also plan to over winter delicate perennials in the same space.

Q: Nesting boxes – How many do I need and where is the best placement?

A: (Hank Will) One nest box that is roughly a cubic foot in size should suffice for up to about 4 hens. You don't want your layers to go looking for other, secret laying areas so you might err on the high side here and provide a box for every 2-3 hens, to be safe. Place the nest boxes out in the darkest areas in the chicken house – out of the sun's path through the windows if possible. Wherever you

place the boxes, be sure they are located conveniently enough that egg collection is easy. I prefer to hang the boxes on the wall at least 18 inches off the floor to discourage nesting beneath them.

Q: What cleaning products are safe to use for chicken coops or other equipment?

A: (Hank Will) Dilute liquid bleach (1 part household bleach to 4 parts water); soaps like Basic H and liquid Castile; commercial disinfectants like Tektrol. Take care to allow bleach treatments to dry sufficiently that the chlorine dissipates – likewise don't use bleach if you have ammonia emanating from the soiled areas as this can release enough chlorine gas to be harmful to you and your chickens.

Q: I know to coop my chickens at night to protect them from nocturnal predators, but what can I do during the daytime to deter hawks and other daylight predators?

A: (Hank Will) Some things worth trying: For aerial predators, let your dog(s) romp the yard during the day, string wires in semi-random fashion over the chicken run, suspend lightweight netting over the chicken run, fully enclose the chicken run with mesh fencing material. For terrestrial predators such as the neighbor's dog, some coyotes, red fox and other mammals, enclose the run with fencing of suitable height (you may need to bury the bottom 6 – 8 inches of fence if you have persistent diggers). You could also just keep the chickens in a fully enclosed (top, bottom, sides, ends) run.

Q: Are ants or poisonous spiders dangerous to my chickens?

A: (Hank Will) Ants are not generally dangerous to chickens – in fact they sometimes eat ants. Fire ants can kill small chicks if they invade the brooder – or the box where a hen is brooding her own chicks. Spiders are not generally dangerous to chickens either and some hens appear to relish eating them. I'll not go so far as to suggest that some venomous spiders couldn't harm your chickens, but in the daily doings of spiders and chickens, the encounter rarely occurs that harms the bird.

Q: Is there anything specific I can do with my yard/landscaping that would benefit my chickens?

A: (Hank Will) Plant lush grass and let the White Dutch clover and dandelions grow freely. Avoid using pesticides and herbicides (the chickens will make all the fertilizer your lawn needs). You will also want to offer plenty of shady shrubs and some trees along with a sunny somewhat bare area where the birds can take dust baths. If you don't supply the bathing location, they will likely create it over time.

Socialization

Q: I want to raise very tame chickens. How should I interact with them as chicks to ensure they are well socialized with people?

A: (Hank Will) Routine handling (don't overdo this with day old chicks) is the best way to keep your chickens tame. Once they fledge out, you can even experiment with bathing them (ask a 4-H member how to prep chickens for the show). It helps to keep some chicken treats in your pocket and to routinely feed them from your hand.

Q: Can you provide a step-by-step guide to introducing new chicks or adult chickens to an existing flock?

A: (Hank Will) There are many different methods. Here's my approach.

1. Don't try to introduce chicks to an existing flock until they are old enough to fend for themselves. They should be fully fledged and have spent significant time out of the brooder.
2. Provide some hiding places, or sufficient run space to allow the newcomers to escape harassment.
3. Gather up the new chickens around sundown, while the established birds are heading off to roost.
4. Under cover of darkness, very calmly and quietly place the birds inside the coop where the others are roosting.
5. Listen for any immediate squabbling – there may be a little bit, but usually it remains quiet. If you hear screaming or observe thrashing about, intervene.
6. Watch the flock carefully the following morning and be prepared to intervene if you see any mortal combat. Blood is a bad thing. Don't be surprised to see some chasing and a bit of pecking – the order has been altered and it will take a few days for everyone to learn their new place.
7. In my large chicken run I will often add birds willy nilly – even during daylight hours. The run has plenty of escape areas and hiding places – within a couple of days the entire group heads off to the henhouse to roost at night.

Q: Can broody breeds of hens such as Silkies be used as interim “mothers” when introducing new chicks? How do you encourage the hen to “adopt?”

A: (Hank Will) I am not aware of any great propensity of specific breeds to adopt chicks in broad daylight but – if you have some broody hens that are on the nest, you can slip young chicks into their nests (even while they are sitting on them) in the dark – it's best if the hen is asleep. If you do this right, the hen will behave as though some of the eggs hatched. Older chicks are tougher to get adopted.

Q: Will a full sized rooster treat standard and bantam hens differently? Is it possible to breed standard and bantams?

A: (Hank Will) A rooster is pretty much a rooster and will attempt to mount pretty much any hen. The bantam hen may be vulnerable to injury if she is caught by a persistent and much larger/heavier rooster. Breeding can very well occur, but bantams tend to be a lot quicker and the large breed rooster will have difficulty catching her – and their reproductive parts will have some difficulty lining up. I

have had older bantam roosters get stomped by standard roosters – the aggressive bantam roosters truly believe they are at least 10 times their size.

Q: What birds are best able to co-exist with chickens (ducks, geese, turkeys, peafowl, guineas)?

A: (Hank Will) I have kept chickens and turkeys together many times (yes I know this isn't recommended, but I never lost one turkey to blackhead disease). I also had a small gaggle of geese on the same range and though they mostly kept to themselves, when a goose was on her nest, the gander swept the area clean of other birds – his approach for dealing with perceived interloping chickens was to grab them by the back of the neck and shake or stomp. Ducks have been in and out of my chicken coop too as well as Guineas. Ducks are incredibly messy and the Guineas are very independent. I never asked the birds to share the same roosts, but the turkeys spent most nights on the front porch railing or in the chicken house. The Guineas liked to roost on the barn peak and the geese and ducks huddled outside or in the little 3-sided huts I made for them. I never kept peafowl, but know of two places where they were kept with chickens – again there was plenty of space for the chickens to respond to aggressive posturing by running away.

Q: What is the fewest number of hens that can live happily and healthily? Can a hen live solo?

A: (Hank Will) I believe that three is the magic number, but in all honesty that's because I like odd numbers in my flocks and herds and the like. Two hens would likely be happier than a single because chickens are social animals. If you provide the hen with some kind of awesome attention a few times a day, I bet she'll have a decent life, but I know it would be much more interesting with another hen, rooster or brood of chicks to cackle with.

Q: Is it safe to “borrow” a rooster from someone in order to fertilize my hens' eggs? How long would I need to keep him to ensure I get chicks?

A: (Hank Will) This should be safe so long as you know the donor flock well and know that it is truly healthy (or don't mind the risk of transmitting mites, etc.) – but you really need to think about the biosecurity issue. You could quarantine the rooster for say three weeks before introducing him to your hens, but sometimes that's not practical. If you decide to go ahead and do it, I would leave the rooster with the hens for a week or more (longer if you have a whole passel of hens) depending on how aggressive and successful he is at catching hens. Once mated, hens can store viable sperm for more than a week so you might get a number of fertile eggs after the rooster heads back home. Again, this flies in the face of biosecurity, but I see less worry with this than with taking my hen to a poultry show where thousands of birds and handlers are present.

Q: Is it possible for two roosters to live together in one flock? If they start behaving aggressively with one another, what should I do?

A: (Hank Will) Multiple roosters will readily inhabit the same flock. I currently have two and they pretty much ignore one another. I had three at one time – one, from a somewhat aggressive breed, went to live at the neighbor's not because he fought with other roosters but because he flopped me just about every time I entered the run. If they damage one another, you will want to separate the roosters to keep one from getting killed. If they just bump chests with their hackle feathers flared, let them have their fun. And remember, these animals are living out their genetic destiny – in the world of chickens it is impossible to impose our idea of ideal peaceful social culture.

Eggs & Meat

Q: How often do I need to collect eggs for them to be safe to eat?

A: (Hank Will) Every day is best.

Q: Are there any treatments or medications for my chickens that would make their eggs unfit for eating?

A: (Hank Will) Any medication in the laying flock pretty much makes the eggs pig food.

Q: At what age do hens stop laying eggs?

A: (Hank Will) This depends on the breed and environmental factors like nutrition and climate.

Q: How much flax or other omega-3 source do I need to feed my flock in order to affect the nutrition of the eggs?

A: (Hank Will) Not that much depending on the source. If you plan to feed flaxseed or meal I would probably not go higher than 10 percent of the ration by weight. Alternatively, you could feed them all the alpha-linoleic acid containing rye grass they will take (but offer them crumbles and scratch too). If you have access to trout or salmon offal, I'm pretty sure the chickens would relish it, but I would limit the birds to a small treat each day.

Q: At what age are dual-purpose breeds ready to be eaten? Egg laying breeds?

A: (Hank Will) Dual-purpose roosters such as Australorps might be fryer size in 8 - 10 weeks or so and broiler size in 12 – 14 – if you let them go much beyond 18 weeks, they will start getting tough. Older hens make great stew. Roosters from egg laying breeds should be at fryer size at about 16 weeks.

Q: Do I need to keep my meat birds separate from my laying birds?

A: (Hank Will) They can be raised together but for best performance, the two types require different rations and feeding regimes – so separate makes sense.

Q: Cleaning eggs before storing them – Do I need to? Can I clean eggs without destroying the egg’s natural barrier? What is the proper way to clean them?

A: (Hank Will) There is considerable debate on this. You generally don’t need to clean eggs that are clean from the coop (some people disagree), but cleaning dirty eggs makes sense. The trick is to use a cleaning solution that is warmer than the egg, which will have a tendency to then warm the egg and cause it to have a slightly positive internal pressure, which helps keep you from pushing contaminants through the pores. You can use a very dilute soap solution (avoid vigorous scrubbing) followed by a sanitizing rinse dunk (very dilute bleach works) and clear water dunk. Let the eggs dry on clean towels.

Q: Can I get eggs from Cornish Cross Rocks as well as meat? Would I need to feed them differently?

A: (Hank Will) The short answer is no. These hybrid birds are not, and never were, designed to be parents – they are so fast growing that it is unlikely the hens could survive to sexual maturity.

Q: Are chickens subject to FSQA rules?

A: (Hank Will) Yes, if they are exhibited as 4-H projects or at venues and events that require certification.

Health & Welfare

Q: Is it safe/humane for chicks to travel through the mail?

A: (Dr. Rob McCoy) Shipping via express mail is a common means of transporting day-old chicks from the source to keepers of small flocks and has been a standard practice for many years. Handled properly and promptly, day-old chicks get along just fine during the journey. They have a source of residual nourishment, known as the yolk sac, they draw from for the first couple of days after hatching which sustains them as they travel. There are other considerations, including maintaining warmth in transit and prompt attention at the destination. To help assure good results, work with a reputable source experienced in shipping chicks in this manner.

Q: What immunizations do you recommend for new chicks?

A: (Dr. Rob McCoy) Having chicks vaccinated for Marek’s disease at the hatchery is common and recommended almost universally. Vaccination for Newcastle and infectious bronchitis (available as a combination vaccine) may be indicated if there is a history of these diseases in your local area. Vaccination is inexpensive insurance. Consult with your chick supplier to get their recommendation.

Q: Can immunizations/vaccinations interact negatively with medicated feed?

A: (Dr. Rob McCoy) A vaccine to combat Coccidiosis, a condition caused by a protozoa (most vaccines target viruses or bacteria), is available from some chick suppliers. It is recommended that chicks given this vaccine be fed non-medicated feed.

Q: Do I need to get my chickens vaccinated if I purchase them as adult birds or if my existing adult birds have never been vaccinated?

A: (Dr. Rob McCoy) Vaccines are given to chicks, primarily. Mature birds will have had more exposure to pathogens and will have developed some level of immunity. Boosters of some vaccines (e.g., Newcastle) are sometimes indicated for mature birds.

Q: If my chickens are being treated with antibiotics, are their eggs safe to eat?

A: (Dr. Rob McCoy) A few medications (e.g., amprolium, bacitracin) are approved for use in feed for laying hens. Be sure to read the feed tag carefully and follow the directions closely. If use of a particular medicated feed is not appropriate for laying birds or if there is a withdrawal period, it will be stated clearly on the label.

Q: At what age do I need to start worming my chickens and how often?

A: (Dr. Rob McCoy) Chicks are commonly wormed the first time at four to six weeks of age. In cases where worms are problematic, birds can be treated every 30 to 60 days. Be sure to follow label directions closely. Many products are not appropriate for use in laying birds.

Q: What is the best way to get rid of mites?

A: (Dr. Rob McCoy) For the keepers of small flocks, pyrethrin or permethrin-based insecticides are effective and widely available. Please read and follow label directions carefully. In nature, birds will “dust” themselves to help fight external pests such as lice and mites. Giving birds some access to soil for this purpose can be helpful. Adding some calcium carbonate and(or) diatomaceous earth to a “dust bath” may also provide some benefit. For mites on the legs, consider dipping the legs in mineral oil to suffocate the pests.

Q: What are the indications for using Terrimycin, Lincomycin, Duramycin or Azomite? Can these be used on either chicks or adult birds? Do I have the option of mixing them into water or feed?

A: (Dr. Rob McCoy) Terramycin and Duramycin are trade names for specific tetracyclines generally used in poultry to treat respiratory disease. Lincomycin is an antibiotic generally used in poultry to address specific pathogens in the digestive tract. These medications can be applied both through feed and water. The water-soluble form of these drugs is more widely available, thus probably the better option for keepers of small flocks. These medications can be given to chicks or mature birds to treat the underlying condition. Be sure to read and follow label directions carefully. Azomite is not an antibiotic, but a branded

mineral product. Azomite is not water-soluble, so it would need to be incorporated in the feed.

Q: Does mixing a teaspoon of vinegar in a gallon of water, really work to fight bacterial infections?

A: (Dr. Rob McCoy) Adding vinegar to drinking water will decrease pH (make more acidic). Consuming this water, in turn, may result in a slight reduction in pH in the digestive tract. This slightly more acidic environment is believed to create an environment less suitable for the growth of some pathogenic bacteria. The benefit of this practice is probably limited, however, there is no harm in doing so as long as water consumption is not depressed.

Q: I have been told that while my chickens are on antibiotics they should not have access to water at night. Is this accurate? If so, why?

A: (Dr. Rob McCoy) The directions for some water-soluble medications will suggest restricting access to water, usually over night. The rationale is that this restriction will increase thirst and when water (with the medication) is reintroduced, it will be consumed readily. It's simply a means of assuring intake of the medication. During warm weather, never restrict access to water.

Q: How often do chickens get sick and how will I know if it's a serious problem? Do chickens get colds? What are the symptoms and what is the appropriate treatment?

A: (Dr. Rob McCoy) Chickens become ill anytime they are exposed to a pathogen that their immune system is unable to combat effectively. While illness can occur at any age, it's most prevalent in chicks. Older birds have been exposed to more pathogens, thus their immune systems are better able to handle challenges. Watch for any change in their normal appearance. Look for signs of illness, including: discharge from the beak or eyes; lesions; labored or shallow breathing; trembling; swelling; blood; paralysis/immobility; discoloration; diarrhea; loss of appetite; isolation/odd behavior; etc. Tetracyclines are used commonly to treat respiratory conditions. Amprolium and sulfonamides are used to combat coccidiosis. Always read and follow label directions carefully. Providing a well-balanced diet and plenty of clean, fresh water will assure a good plane of nutrition which will, in turn, help your birds fight disease challenges.

Q: Should I be concerned about chickens that don't seem to feather out or that have bald spots?

A: (Dr. Rob McCoy) For birds that don't feather out or have bald spots, first assure that this isn't being caused by picking by other members of the flock. Once that is ruled out, evaluate the feeding program. Such birds could benefit from a little additional dietary protein and fat. Manna Pro's Calf-Manna and Poultry Conditioner are supplements to consider.

Q: What is the appropriate procedure to prevent the spread of disease (between chickens as well as between chickens and humans)?

A: (Dr. Rob McCoy) Take a common sense approach to biosecurity. Controlling access to your flock, especially by other bird owners, will help prevent the spread of disease. Have your birds vaccinated. If new birds are added to the flock or if resident birds are taken off the property to a fair or the like, quarantine them away from the main flock for 30 days. This will give you an opportunity to watch for anything they might be carrying or have picked up. Control vectors of disease, such as rodents and other critters, insects, and parasites. Don't forget about wild birds and pets. Be sure your clothing and shoes are clean before entering where your birds are kept. Same goes for tools, equipment, crates, cages, etc. Thoroughly clean your facility periodically and practice good sanitation. Be sure to dispose of any dead birds promptly and properly (burial or incineration). Finally, as mother always says, wash your hands. Seriously, washing up before and after handling your birds is probably the simplest way to prevent passing something along.

Q: Is it safe for people to handle medicated feeds if they are allergic to those medications?

A: (Dr. Rob McCoy) If an individual has a known allergy to a specific medication, they should avoid handling and contact with feed containing that drug.

Feeding & Nutrition

Q: I have seen water additives (vitamins, sugar, electrolytes) for newly arrived chicks. When are these necessary?

A: (Dr. Rob McCoy) Inclusion of water-soluble nutrients in the drinking water of newly received chicks can help them get off to a good start. Depending on the product used, these supplements usually supply a source of readily-available calories along with some vitamins and possibly some electrolytes. Chicks will generally start drinking before they start eating, so spiking the water with some supplemental nutrients can be helpful. For older birds, consider using water-soluble nutrient packs are during times of stress (transportation, heat, disease, etc.).

Q: What are the advantages/disadvantages of using Medicated starter versus Non-medicated starter? Is it possible to feed chicks something other than a processed feed product?

A: (Dr. Rob McCoy) There is really no disadvantage to feeding a medicated chick starter; some people simply prefer not to. The most prevalent medication in bagged chick starter is Amprolium, an effective means of controlling coccidiosis. Coccidiosis is a protozoa that is widespread in nature. It damages the lining of the intestine, leading to impaired absorption of nutrients and bleeding into the digestive tract. It can be fatal. Further, infected birds are more prone to secondary infections from other pathogens. Theoretically, it is possible to combine a variety of food and other widely available ingredients and make a chick feed. However, it would be quite difficult to assure a complete and balance diet in this manner.

Q: Do chicks need grit? If so, can they have the same grit that I give to my adult chickens?

A: (Dr. Rob McCoy) The particle size of commercially prepared mash or crumble diets is sufficiently small that chicks do not require grit. Grit should be made available to chickens when they begin to forage and anytime larger particles (such as scratch grains) are fed. This would typically be around eight weeks of age.

Q: Is rain barrel water safe to give my chickens?

A: (Dr. Rob McCoy) Rain water can be used as drinking water, provided it's clean and fresh. The vessel used to catch the rain must be kept clean to avoid microbial activity.

Q: If I add supplements to my chickens' water, do I need to change it more often?

A: (Dr. Rob McCoy) When a water-soluble product (medication or nutrient pack) is added to drinking water, it is generally recommended that the water be changed daily.

Q: Is milk a suitable calcium supplement for laying hens?

A: (Dr. Rob McCoy) While fluid milk is a good source of calcium, it would not provide the laying hen with adequate calcium to support egg shell production. Further, birds are unable to digest lactose (milk sugar). If they consume very much lactose, they will get severe digestive upset.

Q: At what age can I start feeding my chickens "treats" such as worms, crickets or kitchen scraps? Do I need to limit these items?

A: (Dr. Rob McCoy) Treats and kitchen scraps can be fed once the chicks are off to a good start, say at around four weeks of age. These things can be a nice complement to the diet, but limit the amount offered to assure intake of their balanced diet is not reduced too much.

Q: If I have bantams and/or meat chickens mixed in with my layers, is it okay to feed them all a laying mix?

A: (Dr. Rob McCoy) It's certainly preferable to feed bantams and (or) meat birds a different diet than the layers. By design, layer feed is high in calcium to support egg shell production. This level of calcium is excessive for non-layers and can lead to bone abnormalities, especially in younger birds.

Q: If I have chicks mixed with adult birds, how do I feed them separately?

A: (Dr. Rob McCoy) If chicks are commingled with adult birds, they can be fed separately by using a creep feeder. Simply put, a creep feeder is an arrangement that allows access to the smaller members of the group, excluding the larger members. The goal is to have a feeding area surrounded by access points large enough for the chicks to pass through, but too small for the older

birds. Commercially made creep feeders are available for cattle and other species. Look at these for ideas. It will take a little thought and engineering, but it can be done. It might even be fun!

Q: Under what circumstances would you recommend I use a general supplement such as Poultry Conditioner or Calf-Manna?

A: (Dr. Rob McCoy) Supplements like Calf-Manna and Poultry Conditioner can be used anytime you'd like to enhance the nutritional profile of the diet.

Examples include: young, growing birds; conditioning birds for exhibition; to intensify the brilliance of plumage; during environmental stress; to increase feed intake; to hit a target weight in a brief timeframe; and to boost egg production, especially later in the laying period.

Q: If I want to add flax seed to my flock's diet, what proportion of flax to feed should I use?

A: (Dr. Rob McCoy) The composition of the egg can be modified by diet and flax is one ingredient that has received much attention over the past several years. Research has shown that the level of Omega-3 fatty acids can be increased by feeding flax. However, many of the specifics regarding this program are proprietary and not available publically. To date, I've not conducted any research on this personally, but would propose 10% flax in the diet as a starting point.

Q: How do feeding requirements change if my chickens are free-range?

A: (Dr. Rob McCoy) Free range birds will expend more calories than confined birds, so they'll need to consume more calories to grow and maintain body weight. Provide them with free access to a good quality, balanced diet designed for birds in the specific life-stage you're feeding. This will complement the range. Depending on the quality and quantity of range available, consumption of the feed may be as little as half what you'd see with confined birds, but it's important to have this supplementation available.