Andy's FARM & GARDEN



Start Off on the Right Foot Nutrena®



Select the right breed of chicken for your needs

- · Egg-producing breeds
- · Meat-producing breeds
- · Dual-purpose breeds (meat and eggs)



Egg Layers



- Smaller bodies
- Start to lay eggs at approximately 20-22 weeks
- Average hen lays 20-23 dozen eggs the first year
- Molt at approximately 14 months
- Healthy hens lay for several years
- Example: Sex Links, White Leghorns



Meat Birds



(Broilers & Fryers)

- Broad breasted and larger than layers
- Produce 1 pound of meat for every2 pounds of feed
- Can weigh 5 pounds at 8 weeks
- Harvested at 3.5-5.0 pounds
- Examples: Cornish and Cornish/ Plymouth Rock Cross, Freedom Rangers



Dual Purpose Breeds (Meat and Eggs)



- The classic "backyard" chicken
- Large-bodied birds
- · Very hardy and self-reliant
- Most lay large, brown-shelled eggs
- Keep for egg production for a season or two, then process
- Example: Rhode Island Red



Should I start with



chicks or adults?

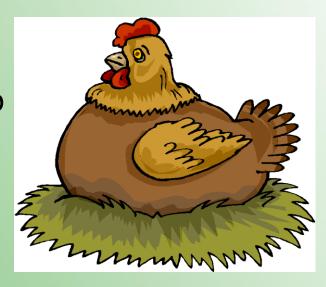
Chicks are a fun family project but they are very dependent on you for the first several weeks of their lives. They need:

- Heat and light
- Access to food and water
- Security- keep inside
- Cleanliness
- Two types of feed
- Once they are feathered (around 8 weeks) they may go outside

Should I start with chicks or adults?



- Adults are typically 16-18 weeks old and will soon be ready to lay
- They can go outside and don't need to transition through different feeds
- They are fully feathered and don't need heat lamps
- Great option if you want to get eggs ASAP



Ordering Chicks



- Order chicks for spring delivery, which typically starts in April, if the weather allows
- Straight run (mixed females and males) or pullets
- Chicks or adults
- How many should I start with?
- Do I need a rooster?



Equipment Checklist



- ☐ Healthy Chicks
- □ Brooder & Brooder Guard
- □ Bedding Material (Shavings)
- □ Feeders
- □ Waterers
- □ Fencing
- □ Feed



Get Ready Ahead of Time Nutrena



- Create a comfortable and controlled environment for chicks
- Set up proper heating and lighting
- Provide proper access to water
- Provide proper feeding

Here's how you do it



Getting Ready for Chicks Nutrena

SPACE

- Create a small area to hold chicks for 7-10 days. Later they will need more space.
- Objectives:
 - Keep them warm and comfortable
 - Keep them close to feed and water
 - · Help them adjust to their environment
- Approximately 1 square foot per chick for first month, then 2 sq ft for weeks 6-8
- Housing options: wooden/cardboard box, stock tank, brooder guard
- Shavings are the best bedding (do not use straw or newspaper)



Getting Ready for Chicks Nutrena



HEAT & LIGHT

- Set up and start heat lamps 24 hours in advance. One 250-watt infrared heat lamp should suffice for every 25-100 chicks
- · Have a second lamp in case one burns out
- Recommended temperature is 90-95° F for first week, decrease slowly each week
- Hang lamps 18-20" above floor and adjust as necessary
- · Chicks need light as well as heat
- Hang the heat lamp securely to prevent accidents



Temperature Control



Wee	≥k 1	90-95° F
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Week 2 85-90° F

Week 3 80-85° F

Week 4 75-80° F

Week 5 70-75° F

Week 6 70-75° F

Week 7 70-75° F

Week 8 65-70° F

Week 9 65° F Minimum



DON'T LEAVE CHICKS



IN THE DARK

- Light improves their growth rate & performance
- Keep light on the chicks for at least the first 48 hours, except for 1/2 hour the first two nights (make sure temp doesn't drop)
 - Use natural light during the day
 - Provide 18-20 hours of light daily for days 3-7
 - Reduce light gradually to 10-12 hours daily thereafter



Lighting Programs for Poultry



Hours of Light Per Day

Period	Broilers	Layers	Turkeys	Gamebirds & Waterfowl
1-2 Days	23.5	23.5	23.5	23.5
3-7 Days	18-20	18-20	20	Standard Day Length
1-5 Wks	14-16	16-18	16-20	Standard Day Length
5 Wks to Marke	10-16	12-16	16-20	Standard Day Length
6-18 Wks	s NA	10-12	NA	NA
Egg Prod	. NA	15-16	NA	NA

FOOD & WATER



- Provide a one-gallon waterer per
 25 young birds to start
- Provide 1" of feeder space per chick to start
- Clean and place feeders and waters before birds arrive
- Set the height of feeder and water even with the backs of young birds



RECEIVING BABY CHICKS



- Good quality birds are essential for successful results
- Young birds should be vaccinated at the hatchery before shipping
- Check young birds carefully before placing them in the brooder
- Confine chicks for 7-10 days to keep them safe and close to feed and water
- Cull any sick birds
- When you receive day-old chicks, allow them to drink water before introducing feed



Helpful Management Tips



- Scatter some feed on a paper plate the first day to help chicks start eating sooner
- Keep feeders and waterers full the first week
- Reduce feed in feeder to half-full after the first week, but make sure it doesn't run out
- Keep feeders and waters clean- disinfect waterers several times a week
- Always provide clean, fresh water
- Provide more space as birds get bigger
- Keep bedding clean and dry



Keeping Your Birds Healthy Nutrena®

- Clean & disinfect facilities in advance
- Buy chicks from a reputable source
- Avoid mixing birds from different sources
- Keep facilities clean & dispose of bedding properly
- Locate/build pens to minimize contact with wild animals
- Avoid borrowing/sharing equipment with neighbors (always wash & disinfect first)
- Fresh, clean air is important- clean coops before you smell ammonia



Keeping Your Birds Healthy



- Be aware of bird flu in your area by checking state websites: HPAI Animal Health: Division of Animal and Plant Health: Maine DACF
- Don't let people handle your birds
- Know the signs of sick animals (contact veterinarian or USDA Extension Office immediately)
- Go to Cooperative Extension web sites
 Poultry Cooperative Extension
 Publications University of Maine
 Cooperative Extension

for more information



DISEASE PREVENTION



Coccidiosis

- Characterized by diarrhea, unthriftiness and in some cases, mortality
- Minimize contact with other flocks to prevent the risk of infection
- Clean, sanitary conditions are the best defense
- Medicated chick feed can help prevent coccidiosis
- Amprolium is the most common medication. No withdrawal period is needed before you eat the eggs or process the chicken

Options for Housing



Chicken Coops and Pens

- Allow at least 4 sq ft per bird
- Provide enough roosts & laying boxes
- Provide bedding at least 6 inches deep
- Make sure the space is draft-free
- Provide an adjacent pen for turn-out
- A pen made of chicken wire is ideal
- Secure wire underground to protect against burrowing predators
- Netting or wire overhead protects against hawks, owls, falcons
- Ventilation and fresh air is very important for good health- if you have cobwebs or ammonia fumes, your coop is not properly ventilated



Options for Housing (cont.) Nutrena

- Keep feeders and waterers in the pen to encourage night-time roosting. Hang or position them even with the birds' backs.
- A good option is one that keeps birds safe and allows them to forage
- Free range or pastured poultry is another option, but be mindful of predators. This is NOT recommended when bird flu is in the area.
- Any pens and coops should be easy for you to clean out



Dust Baths



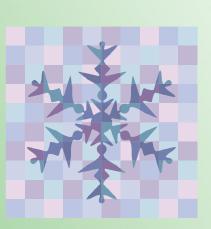
- Chickens love to use a dust bath, and they should have free access to one. This is nature's way of helping the chicken control mites, lice, and other external parasites
- A dust bath can be as simple as loose soil or sand in a shallow pan, or a corner of the run where chickens can scratch and scuff their feathers in the dirt
- Food grade diatomaceous earth can be added for additional parasite control



What about winter?



- Keep water from freezing
- Swap out waterers
- Use a heated base or heated waterer
- Birds like water temp 50-55 degrees
- Provide warm water at least twice a day
- Keep birds away from drafts
- Tight, secure building
- Extra bedding to insulate from the ground

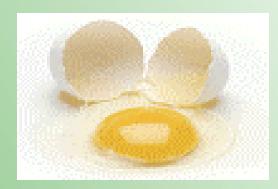


Poultry Fun Facts



- •Commercial chickens lay 20-23 dozen eggs (or more!) per year. Chicken eggs can range in color depending on the breed of the hen.
- You can determine the color of egg that a chicken will lay by looking at her earlobe.
 Chickens with white earlobes lay white eggs, and chickens with reddish-brown earlobes lay brown eggs.
- ·Chickens are relatively quiet when they are happy





What should I feed?



Nutrition

Many different factors influence the nutritional requirements of poultry including:

- Genetics
- Age
- Degree of production
- · Health status
- Flock density
- Environment (temperature, humidity, air quality)

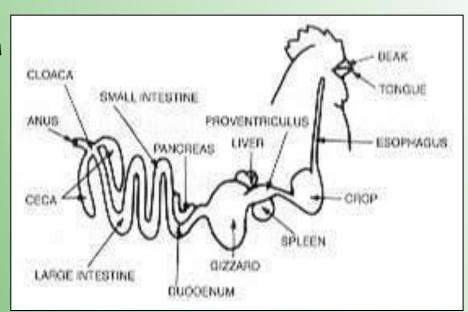




Poultry Digestive System



- ·Beak- aids in breaking down food
- Tongue- moves feed around in mouth (chickens don't have teeth)
- ·Esophagus- passage from mouth to stomach
- Crop- serves as holding and moistening reservoir
- •Stomach- 2 parts-Proventriculus (site of gastric juice production and food storage) and gizzard, which reduces food particle size
- Small intestine, ceca, and large intestine- digest food, absorb nutrients, and secrete waste
- •Cloaca- ureters empty here, waste is excreted as a pasty white urine. In hens, this is the exit for the egg.



Feeding and Watering Guide Nutrena®



• Bird Aç	ge Feeder Space	Watering Space	
• 0-2 weeks	1 inch per chick	1 gal. waterer per 50 chicks	
• 2-6 weeks	2 inches per chick	1 gal. waterer per 20 chicks	
• 6-20 weeks	3 inches per chick	1 gal. waterer per 10 chicks	
• Layer	4 inches per bird	1 gal. waterer per 10 birds	

Feed Estimates



Feed Amount for the Period

0-10 Weeks Layers

8-20 Weeks or the

start of laying

9-10 lbs per bird

12 lbs per bird

Broilers 0-6 Weeks

8-10 lbs per bird

Feed Estimates for Poultry During Lay

Chickens 1.5 lb per bird/week

4-6 lb per bird/week, 72 lbs /first 12 weeks Turkeys

3.0 lb per bird/week Geese

Ducks 1-1.5 lb per bird/week

Gamebirds 1-1.5 lb per bird/week

Poultry Feeds by Nutrena Nutrena





Nutrena offers a complete line of quality nutrition products for layers and broilers, turkeys, ducks and geese, gamebirds

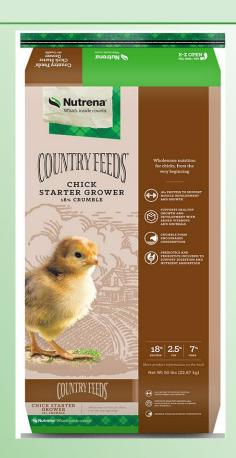
- Regionally manufactured for superior consistency and freshness and backed by world-class research and expertise
- Specially designed to meet your birds' unique nutritional requirements with formulas for all poultry and life stages
- Country Feeds, Nature Wise Natural feeds, and Nature Smart Organic feeds

Poultry Feeds by Nutrena Nutrena



Chick Starter-Grower Crumbles

- · Complete feed for layer chicks, no need to supplement
- 18% protein
- Fortified with vitamins, minerals, and balanced amino acids to support muscle development and growth
- · Feed from birth through 16-18 weeks
- · Comes as medicated or non-medicated
- Medicated feed contains Amprolium to help prevent coccidiosis. Amprolium is not an antibiotic; it blocks thiamin which coccidia need to multiply



Poultry Feeds by Nutrena



Nature Smart Organic

Organic Chick Starter Grower Crumbles

- 20% protein
- Non-medicated
- Probiotics and yeast cultures to support digestion and immune health
- Precise blend of nutrients to support growth and muscle development
- No animal by-products, hormones, or antibiotics
- For layer chicks up to 16 weeks and meat bird chicks



Poultry Feeds by Nutrena



Layer Feed

- 16% protein in a crumble or pellet form
- · Complete feed- no need to supplement
- Fortified with vitamins, minerals and balanced amino acids to support health and egg production
- Start feeding at 16-18 weeks

Egg Producer

- 21% protein in pellet form
- · Complete feed- no need to supplement
- Fortified with vitamins, minerals and balanced amino acids to support health and egg production
- Start feeding at 18 weeks
- Excellent feed for free-range chickens

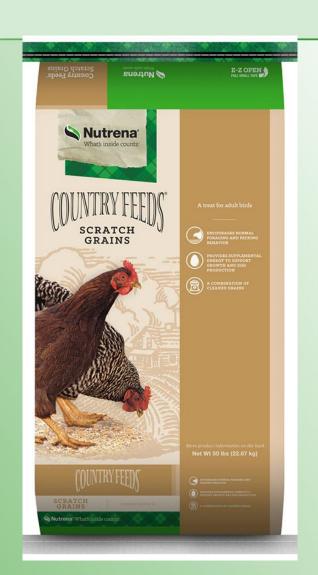


Poultry Feeds by Nutrena



Scratch grain

- Contains 7.5% protein on average
- Here in the Northeast, scratch tends to be a corn/oats mixture
- Use as a treat-should not comprise a significant part of the diet due to the low protein content
- For adult birds- not for growing birds
- Helps to provide additional energy for laying



Poultry Feeds by Nutrena Nutrena

Nature Wise Natural Feeds

Hearty Hen

- Enriched with Omega 3 from flaxseed
- Contains marigold extract for golden eggs
- Contains probiotics and yeast culture for digestion and immune health

Feather Fixer

- Specialty product designed to help your birds through molting; healthy protein & energy levels
- Contains chelated minerals, marigold extract, preand probiotics to support feather regrowth, eggshell strength, digestion and immune levels







- Molting is the process of losing old feathers and growing new ones
- Typically this first happens at 14 months, then yearly after that in the fall. This allows the bird to go into winter with the best possible feather coat
- Hens that are good layers tend to look worse during molting than hens that are poor layers
- Molting can last from 4-16 weeks
- Hard molt means that all the feathers appear to be lost at roughly the same time. Soft molt means that the chicken slowly looses feathers over several weeks
- Hens don't lay during molting- all the protein that they ingest is going into the new feathers
- Reducing stress helps the chicken to recover quicker

Why aren't my chickens laying?



Most common reasons:

- Not enough water one hour of dehydration can lead to a week without eggs
- •Stress from predators, too many roosters, too much commotion
- ·Diet not enough protein
- Molting Nature's way of getting them ready for winter
- •Not enough light 16 hours per day is ideal. Add supplemental light in the winter, but do so slowly. Morning light is better than extending the day.

Why are my chickens hurting each other?



Chickens can become cannibalistic for several reasons:

- They sense that one is weaker remove her and give her a chance to heal
- Boredom provide entertainment, such as a head of lettuce, if they are closed inside
- Not enough room to move around
- •Flock stress too many roosters, or a rooster that is too aggressive (may also lead to a decrease in eggs)
- Try red lights, Hot Pick
- Provide enough nesting boxes to prevent competition while laying





They're eating the eggs!

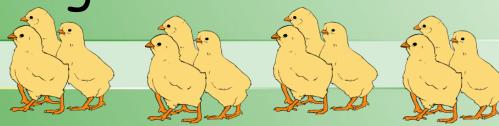


This is behavior that you want to stop as soon as possible

- Learned behavior, probably from sampling a broken egg
- •Isolate the guilty so others don't learn the bad habit!
- ·Use a wooden or ceramic egg to re-train
- Use quality feed with an appropriate protein/vitamin/mineral package

Raising Meat Birds





- Meat bird chicks have similar requirements as layer chicks in terms of light, heat, space, food and water.
- They grow faster, so are fully feathered and able to leave the heat lamps sooner
- Keep food and fresh water in front of them at all times
- Meat birds do not move around much, but still need adequate room to spread their wings and squat
- Typically these birds are processed at 8 weeks of age, but may go earlier if they get very large
- It is not advisable to keep them beyond 9 weeks, as they will start to develop health problems

Raising Meat Birds



Meat Bird Feeds

Country Feeds

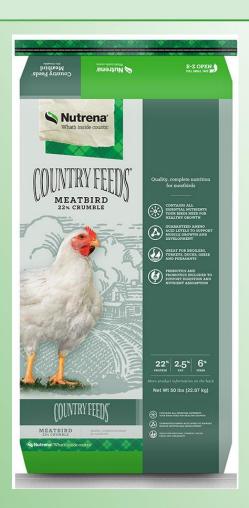
- · 22% protein in a crumble form
- Complete nutrition for healthy growth and muscle development, no supplementing needed

Nature Wise Natural

- 22% protein in crumble form
- Contains added marigold meal, pre- and probiotics, yeast cultures
- Contains no added hormones or antibiotics
- Formulated for multiple bird species

Nature Smart Organic

Use Organic Chick Starter Grower







TURKEYS, DUCKS, AND GAME BIRDS



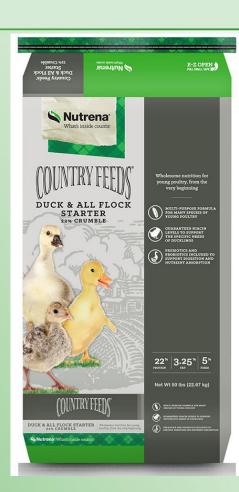
Country Feeds



Duck and All Flock Starter

A convenient complete feed for ducklings, goslings, turkey poults, quail, and guinea fowl

- · 22% protein in a pellet form
- Non-medicated
- Fortified with vitamins, minerals, and balanced amino acids to support healthy birds
- A good feed to use if you have several species but don't want to deal with different feeds



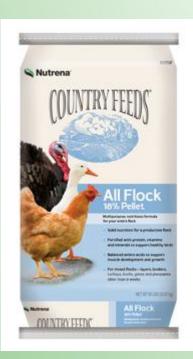
Country Feeds



All Flock

A convenient complete feed for mixed flocks

- 18% protein in a pellet form
- Safe for ducks, as it is non-medicated. Can also be fed to broilers, turkeys, geese, and pheasants
- Fortified with vitamins, minerals, and balanced amino acids to support healthy birds
- A good feed to use if you have several species but don't want to deal with different feeds



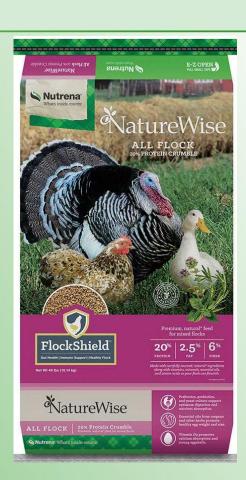
Nature Wise



All Flock

A convenient complete feed for mixed flocks of adult birds

- 20% protein in a pellet or crumble form
- Safe for ducks, as it is non-medicated. Can also be fed to broilers, turkeys, geese, and pheasants
- Fortified with vitamins, minerals, and balanced amino acids to support healthy birds
- A good feed to use if you have several species but don't want to deal with different feeds



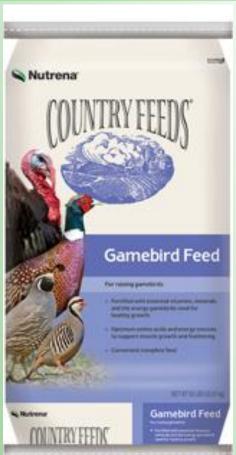
Country Feeds



GAMEBIRD FEED

Complete feed for healthy growth, feathering, energy, and muscle and turkeys.

- 21% protein
- · Crumble form
- Feed from hatching to market
- Fortified with essential vitamins, minerals, and optimum amino acids.



FEED ESTIMATES



Turkeys & Geese

Turkeys 0-8 weeks 12 lbs per bird

9 Weeks to Finish 70-90 lbs per bird

Geese 0-4 Weeks 8 lbs per bird

5 Weeks to Finish 45 lbs per bird

Ducks & Gamebirds

Ducks 0-4 Weeks 7 lbs per bird

5 Weeks to Finish 15 lbs per bird

Gamebirds 0-8 Weeks 4-6 lbs per bird

7 Weeks to Finish 5-12 lbs per bird