

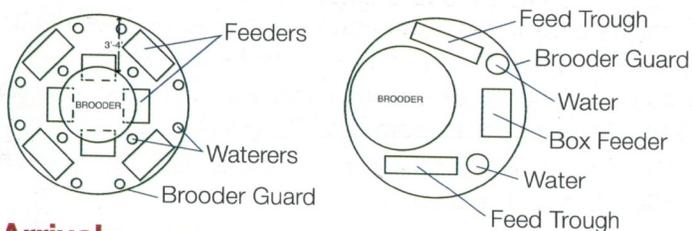
MANAGEMENT & FEEDING

MEAT BIRDS

BROODING - Getting Started

1. Clean and disinfect the brooding area and equipment.
2. Ensure the brooding area is dry before putting down the bedding.
3. Install brooder guard around brooding area in a circular formation. This will help prevent chicks from getting lost or crowded in the corners. Allow 0.23 sq m (2.5 sq ft) per 10 chicks.
4. Add 8-10 cm (3-4 in) of fresh clean bedding in the brooding area. Wood shavings, chopped straw or sawdust are ideal for bedding.
5. Provide a minimum of one heat lamp for every 50 chicks, hung 50 cm (20 in) above the birds.
6. Hang a thermometer 5 cm (2 in) above the floor level to monitor temperature.
7. Set up feeders as follows: 1) tube feeders, use one per 25 birds, 2) trough feeders allow 5 cm (2 in) of feeding space per bird.
8. Set up waterers as follows: 1) tube waterers, use on 2 litre (1/2 gallon) per 25 chicks, 2) trough waterers allow 2 cm (0.75 in) of

IDEAL LAYOUT FOR 100 BIRDS



Before Arrival

1. Warm the brooding area to 32°C (90°F) 24-48 hours prior to the birds arriving. **IMPORTANT:** Temperature must be evenly distributed in the brooding area. Drafts cause uneven temperatures, resulting in crowding and possible deaths.
2. Fill waterers and feeders 2-3 hours before chicks arrive. To start chicks on feed you may want to use an egg flat or shallow tray/ box for the first few days.

BROODER TEMPERATURE CHART

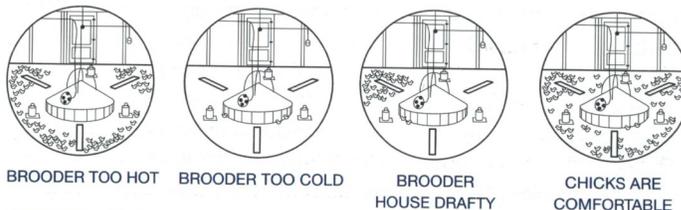
Age of Chicks (days)	Temperature *C	Temperature *F
1—7	32	90
8—14	29	85
15—21	26	80
22—28	23	75
29—market	21	70

At Arrival

1. **IMPORTANT:** Check to ensure the brooding temperature is 32°C (90°F) 5cm (2 in) above floor level before placing the chicks under the heat lamps.
2. Avoid unnecessary handling to prevent stressing the young birds.
3. Make sure feed and water are provided on a “free choice” basis.

After Arrival

1. Monitor the brooding area carefully for the first week, paying special attention to temperature, water and feed consumption. If you notice birds crowding into one area check to ensure there are no drafts and your temperature is evenly distributed in the brooding area.
2. After 1 week of age, start increasing the brooding area. The brooder guard can usually be removed once birds are 10 - 14 days old.



VENTILATION

Proper air quality is very important to maintain the health and productivity of the birds. A good ventilation system provides adequate fresh air (without causing drafts), helps to control the temperature (especially in hot weather) and removes excess levels of moisture, gas, dust and odours.

WATER

1. Clean fresh water should be available at all times.
2. To start chicks off, use lukewarm water in the drinkers. Dip the chick's beak in the water upon arrival. This will give the baby chick a drink plus let it know where the water is located.
3. As birds grow larger, waterers should be raised up off the floor. This will keep chicks from scratching litter into them.
4. Clean out waterers on a daily basis to avoid contamination from litter, dust and feathers.
5. As birds grow older, increase the amount of water available. Never allow birds to run out of water. **NOTE:** water consumption will increase during hot weather conditions.

FEED PROGRAMS (Meat Birds/Roasters)

1. Feed must be kept clean, fresh and available at all times.
2. Start chicks on 20% Chick Starter (medicated). The birds should consume 1 kg (2.2 lbs) of starter per bird (i.e. 100 chicks will eat 100 kg (220 lbs) of chick starter).
3. Switch birds to 16% Chick Grower (medicated) after the chick starter has been consumed. Feed 1.5-2 kg (3.3-4.4 lbs) per bird of chick grower (i.e. 100 birds will eat 200 kg (440 lbs) of chick grower).

4. Switch birds to 14.5% Roster Finishers plain after the chick grower has been consumed. The birds should stay on this feed until they reach the desired slaughter weight. Meat birds can be raised to the following weights: males 4-5 kg (9-11 lbs), females 3-4 kg (6.6-9 lbs).

5. Poultry grit should be offered to the birds once per month (on top of the feed) to aid in digestion. Feed 1 kg (2.2 lbs) per 100 birds.

EGG LAYING BIRDS

BROODING

Follow the meat bird brooding procedures with these additions/changes:

1. Clean and disinfect the layer housing area and equipment prior to pullets arriving.
2. Layer pullets should be placed in the layer house at 18-20 weeks of age.

SPACE REQUIREMENTS FOR LAYING BIRDS

Cage Area	Floor Space		Feeder Space	
	Light Controlled Floor	Open Floor	Trough /Birds	Birds/ Tube or Pan
465 sq cm (72 sq in)	8.5 birds/sq m (1.25 sq ft/ bird)	7 birds/sq m (1.5 sq ft/ bird)	10 cm (4 in)	20

TEMPERATURE & VENTILATION

Layer house temperature should be maintained at 20-27°C (68-81°F) to achieve optimum feed efficiency and egg production. If the temperature falls below 20°C (68°F), feed consumption will increase and feed efficiency will decrease. Temperature should be monitored daily (a high/low thermometer works well) and adjustments made as needed. As with other poultry, laying hens require good ventilation to provide adequate fresh air (without causing drafts), help control temperature (especially in hot weather) and remove excess levels of moisture, dust and odours.

LIGHTING

Laying hens are influenced by the hours of light in a day. To ensure maximum egg production, laying hens require 14-17 hours of daylight on a schedule where daylight hours are kept constant or slightly increased over time. A time clock works well to regulate the lighting program. One clean, 60 watt incandescent light bulb will supply adequate light (20 lux) for 18.6 sq m (200 sq ft).

WATER

Clean, fresh water should be available at all times. Laying hens drink a lot of water, approximately 18-22 litres (4-5 gal)/100 birds/day at normal temperatures and more in warmer weather, 25-32 litres (5.5-7 gal)/100 birds/day. Water consumption is an important indicator of flock health.

WATER SPACE REQUIREMENTS

Birds/Cup	Birds/Nipple	Trough/Bird	Birds/Fountain
3	3	4 cm (1.5 in)	40

FEED PROGRAM (Pullets/Layers)

PULLETS

1. Start chicks on 20% Chick Starter (medicated) and feed until 6 weeks of age.
2. Switch birds to 16% Chick Grower (medicated) at 6 weeks of age and feed until pullets are 18 weeks old.

LAYERS (REGULAR)

1. At 18-20 weeks of age, switch pullets to 17% Layer Ration. Layer will consume 100-125 grams (.22-.27 lbs) of feed per day (i.e. 100 layers will eat 10-12.5 kg (22.27.5 lbs) of feed per day). Birds tend to eat more in the morning and again in the late afternoon than at other times of the day.
2. Oyster shell should be made available (on top of the feed) to laying hens to help maintain good shell quality.

LAYERS (OMEGA 3)

1. At 18-20 weeks of age switch pullets to FFM 17% Omega Flax-10% Layer Ration, 1.5% Oyster Shell.
2. Layers will consume 100-125 grams (0.22-0.27 lbs) of feed per day (i.e. 100 layers will eat 10-12.5 kg (22-27.5 lbs) of feed per day).

Turkeys

BROODING

Follow the meat bird brooding procedures with these additions/changes:

1. Provide 7-10 cm (3-4 in) of clean litter. Wood shavings are ideal bedding. Avoid using slippery material (i.e. newspaper) for bedding as this may cause serious leg injuries to young poults.
2. Provide a minimum of 0.28 sq m (3 sq ft) for turkey hens and 0.46 sq m (5 sq ft) for turkey toms. Do not over-crowd the birds. To help minimize potential leg problems, give the turkey toms some extra area for exercise.
3. To teach baby poults to drink and eat, it is good to dip their beaks in the water and then in the feed. This will give them a sense as to where the water and feed are located.
4. If the weather permits, turkeys can be removed to an enclosed range area at 8 weeks of age.
5. Allow 1.2-2 hectares (3-5 acres) for every 1000 poults. The range should be clean and free of trash, brush and stumps, which may cause injury. Be sure to fence off any streams or water holes. Suitable shade should be provided in the range enclosure.
6. Provide 1 round range feeder per 250 hens or 200 toms.
7. Clean, fresh water should be available at all times. Provide one 0.3 m (8 ft) turkey waterer per 250 birds. Chain suspended waterers work best as they are easy to adjust and less likely to be tipped over.

FEED PROGRAM (Turkeys)

1. Start poults on 28% Turkey Starter (medicated). The birds should consume 2-3 kg (4.4-6.6 lbs) of starter per bird by 6 weeks of age.
2. Feed 23% Turkey Grower (medicated) from 6 to 14 weeks of age. The turkeys should consume 10-12 kg (22-26.4 lbs) of grower per bird.
3. Feed 17% Turkey finisher (plain) from 14 weeks to market. Toms will require more feed than the hens to reach market weight.

ESTIMATE FEED CONSUMPTION (grams/bird/week)

Note: 454 grams = 1 pound

Age in Weeks	Broiler Males	Broiler Females	Turkey Toms	Turkey Hens
1	200	195	260	250
2	600	575	550	500
3	1200	1120	1100	1000
4	2100	1950	1900	1675
5	3200	2900	2850	2450
6	4500	3850	4150	3350
7	5900	5050	5800	4700
8	7600	6380	7775	6000
9	9400	7830	10000	7640
10	11200	9330	12500	9500
11	13000	10830	15275	11500
12	14800	12330	18500	13700
13			21900	16000
14			25600	16700
15			29700	19000
16			34000	21500
17			38500	23700
18			43300	26500
19			48000	29300
20			53000	32300

DUCKS & GEESE

BROODING

Follow the meat bird brooding procedures with these additions/changes:

1. Reduce brooding temperature at a faster rate to encourage more rapid feathering. Monitor duckling/gosling behavior as ducks and geese are very susceptible to chilling if they get wet before their feathers are fully developed.

2. Provide fresh, clean water to birds at all times. Place waterers on wire platform to help keep litter dry. Water jugs/founts should be cleaned out daily.
3. Provide one tube feeder per 25 ducks or geese. If trough feeders are used, provide 5 cm (2 in) per duck or 20 cm (8 in) per goose.
4. One goose or two ducks require 1.1 sq m (12 sq ft) of floor space.
5. If weather permits, ducks or geese can be allowed outside after 2 weeks of age. Be sure to bring them inside at night and in rainy, cool weather to prevent chilling. By 6 weeks of age their feathers should be fully developed and the only shelter they will require is from extreme weather conditions or the hot sun.

FEED PROGRAM

DUCKS (Regular)

1. Start ducklings on 22% Duck Starter. The birds should consume 1 kg (2.2 lbs) of starter by 4 weeks of age.
2. Feed 18% Duck Grower from 4 weeks of age to market.

DUCKS (Muscovy)

1. Start ducklings on Muscovy Duck Starter. The birds should consume 1 kg (2.2 lbs) of starter by 3-4 weeks of age.
2. Feed Muscovy Duck Grower-Finisher from 4 weeks of age to market.

GAMEBIRDS

BROODING

Follow the meat birds brooding procedures with these additions/changes:

1. Baby chicks should be started off on wire screen surface. A mesh size of 1/4 in x 1/4 in is ideal. This will allow chicks to grow without getting their feet caught in the mesh. It also provides a clean environment as droppings will pass through the screen.
2. Another option is to start baby chicks on clean burlap bags or clean towels. You want to avoid having a smooth surface. A rough surface is necessary to provide adequate footing for the young birds and should help prevent 'spraddle leg'.
3. Water jars should have pebbles or marbles placed in the trough to prevent young chicks from drowning.
4. Feed should be introduced 3 hours after the birds have been in the brooder. This will give the chicks a chance to drink first. Small quantities of feed should be placed on egg flats or clean burlap bags for the first few days. This will help keep the feed clean and fresh.

SPACE REQUIREMENTS FOR GAMEBIRDS

Age in Weeks		Floor Space	Feeder Space	Water Space
0-10 days	Pheasant	4 birds/ 9.68 sq ft	2.5 cm 1 in/bird	3, 4.5L (1Gal) founts/100 birds
	Quail	9 birds/ 9.68 sq ft	1.25 cm 0.5 in/bird	2 chick jars/ 100 birds
	Chukar	6 birds/ 9.68 sq ft	1.9 cm 0.75 in/bird	2, 4.5L (1Gal) founts/100 birds
10 days - 6 wks	Pheasant	1 bird/ 9.68 sq ft	5 cm 2 in/bird	1.2m (4 ft)/ 100 birds
	Quail	6 birds/ 9.68 sq ft	2.5 cm 1 in/bird	2, 4.5L (1 Gal) founts/100 birds
	Chukar	3 birds/ 9.68 sq ft	3.8 cm 1.5 in/bird	0.6m (2 ft)/ 150 birds
6 wks - Mature	Pheasant	1 bird/ 4 sq ft	7.6 cm 3 in/bird	1.2m (4 ft)/ 100 birds
	Quail	3 birds/ 9.68 sq ft	3.8cm 1.5in/bird	0.3m (1 ft)/ 100 birds
	Chukar	1 bird/ 2 sq ft	5 cm 2 in/bird	0.6m (2 ft)/ 150 birds

FEED PROGRAM (Gamebirds)

The FFM Gamebird Program supplies all the nutrient requirements for pheasant, quail, chukar and wild turkey.

1. Start birds on FFM 28% Gamebird Starter and feed until 6 weeks of age.
2. At 6 weeks, switch birds to FFM 23% Gamebird Finisher/Conditioner and feed until 12 weeks of age.
3. At 12 weeks, switch birds to FFM 18% Gamebird Finisher/Conditioner and feed to market weight. This feed is formulated to yield a finished bird at an economical feed cost.
4. FFM13% Gamebird Holding can be fed as a holding ration for mature birds, an over-wintering ration or to 'release birds' over 15 weeks of age.
5. FFM 18% Gamebird Breeder is fed to laying gamebirds to provide all the nutrients required for good egg production, fertility and hatchability.

PERFORMANCE STANDARDS FOR RING-NECKED PHEASANT

Weeks	Male Body Weight (gm)	Male Cumulative Feed (gm)	Female Body Weight (gm)	Female Cumulative Feed (gm)
2	85	144	85	144
4	220	430	200	416
6	380	866	350	794
8	620	1496	520	1352
10	830	2161	660	1915
12	1050	3136	820	2747
14	1300	4092	960	3640
16	1475	5163	1025	4709
18	1530	6338	1080	5827

NOTE: 454 grams = 1 pound

FLOCK HEALTH & PRODUCTS

Coccidiosis - Coccidiosis is the most common disease found in chickens. It is caused by small protozoan parasites, which burrow into the wall of the lower gut. The disease is usually characterized by diarrhea, weight loss, dehydration, weakness and ruffling of the feathers. It's highly contagious and can result in high mortality in young flocks. Many of Floradale's poultry feeds are medicated with coccidiostat, Amprolium, to help control coccidiosis. There is no withdrawal time before slaughtering.

Cannibalism - The most common cause of cannibalism is overcrowding your birds. Be sure to provide plenty of room and to increase the floor area as the birds grow older. If you see an injured bird, remove it from the flock to avoid other birds picking at it. Once cannibalism starts you can treat the infected birds with an anti-picking compound.

Heat Stress - Hot, humid weather causes heat stress in poultry. Four environmental factors influence the severity of heat stress: air temperature, relative humidity, air movement and solar radiation. The effects of heat stress can be minimized in several ways. It is very important that the birds have access to cool, clean drinking water at all times. Make sure that there is adequate air movement in the barn (see ventilation section). Feed can be removed from the birds during the hot, daylight hours and then re-introduced in the evening when it's cooler. If excessive mortalities occur contact your veterinarian.

Nutri-Mins liquid - A combination of minerals, vitamins and electrolytes special designed to give poultry flocks the extra nutrition they need to get them through periods of stress.

Vitamins & Electrolytes - Water soluble products that aid in preventing vitamin deficiencies when birds are off normal feed and/or aid in correcting dehydration and electrolyte loss during periods of stress, scouring or other disease that may cause stress.

Aqua-Dee - A water-soluble source of vitamin D3 that helps prevent the following symptoms of Vitamin D deficiency; soft or thin eggshells, poor production, soft beaks and/or weak legs.

Water-Soluble Antibiotics - Water-soluble antibiotics can be used to prevent and treat many common poultry diseases. Contact your veterinarian and/or feed supplier for specific details.