



FEEDS



Broiler

Management
& Feeding Guide

GROW

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BROILER MANAGEMENT & FEEDING GUIDE

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Information contained in this publication is provided as general advice only. For application to specific circumstances, professional advice should be sought.

We have taken all reasonable steps to ensure the information in this handbook is accurate at the time of publication. Any inaccuracies or errors are inadvertent and regrettable.

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Introduction

A growing number of people are rearing broilers for profit and fun. The Hi-Pro Broiler Management booklet is designed to help you do this well.

Hi-Pro sells Hi-Pro Feeds with Celmanax, baby chicks, farm equipment, and provides advice to help you excel at rearing chicks to be healthy mature birds ready for harvest in just six weeks.

That's right...**just six weeks** and your broilers are ready!

So stay ahead of the game by planning ahead and properly preparing your chicken house, getting the right equipment to nourish your birds, and following best practices.

*This guide is for people raising **up to 1000 birds**
in naturally ventilated coops.*

ABOUT YOUR HI-PRO CHICKS

The Hi-Pro chicks you buy are the same as those being raised on commercial farms so they can perform just as well. They were hatched in the modern Best Dressed Chicken hatchery after twenty-one days and immediately vaccinated for Newcastle, Infectious Bronchitis, and Infectious Bursal (Gumboro) Diseases.

To successfully raise broiler chicks, you need to know and implement a specific set of practices which are wholly based on maintaining a high degree of cleanliness:

Ensure your coop is ready for the chicks' arrival:

- a. Clean and dry chicken house
- b. Clean, fresh litter
- c. Clean Water pans filled with fresh clean water
- d. Clean Feeder pans ready for Hi-Pro Broiler Crumble with Celmanax.
- e. Brooding area ready with Heat lamps and curtains

1. Day 1-10

- a. Selection of healthy Birds.
- b. Transport safely at a comfortable temperature. Avoid extremes of heat and cold; so if you are comfy, your birds should be comfy. Travel in such a way that you do not bounce the birds.
- c. Give clean water on arrival as your birds are probably thirsty. Add sugar and sweeten to taste. On Day 2, add HiProvit to boost appetite and the bird's immune system.
- d. Brood your baby chicks keeping them warm and dry.
- e. Hi-Pro feeds with Celmanax, Feeding from trays after two (2) hours of water only.
- f. Use heat lamp, understanding how to use and when to stop.

2. Day 10-42

- a. Housekeeping: Includes cleaning waterers every day and refilling with cool, clean water. Sweep the sides of the house to remove cobwebs.
- b. Administer HiProvit vitamins and other treatments as required.
- c. Pest control – Keeping mongoose, rats, and ants out of the house.
- d. Transition from Feeding Trays to Feeders.
- e. Gradually reduce coop temperature so that mature birds do not suffer from heat stress.



When collecting your chicks from the store, examine each chick to ensure it is healthy and strong. **Do not accept sick or damaged birds.**



Selection of Quality Chicks

The selection and purchase of quality chicks is significant to the profitability of a broiler operation. Chicks should be sufficiently uniform, alert and active, free of deformities, with no signs of infection or damaged feet.

For best results, always use Hi-Pro chicks. Hi-Pro spends a great deal of time and money ensuring that your chicks are healthy and ready to grow. We select breeds that grow well in our tropical environment, and vaccinate all birds to help them overcome disease challenges.

Once you manage the process well you will have a good sized meat bird ready to harvest in **just 6 weeks.**

When collecting your chicks from the store, ensure you select lively and healthy looking birds. If you transfer them to a box, ensure the bottom is not slippery or the chicks may sprain their legs.

DOES CHICK SIZE MATTER?

Chicks have minor variations in size because older parent flocks lay bigger eggs producing larger chicks, and younger flocks lay smaller eggs producing slightly smaller chicks.

All chicks can get to their final weight in roughly the same number of days once you practice good broiler management as explained in this booklet.

DEHYDRATION

Baby chicks should be transported during the cooler hours of the day. The distance and time of day that birds are transported can often result in dehydration. Signs of dehydration include dull, dry, withered looking leg covering; sometimes the skin appears folded.

Give your baby chicks water with a little sugar sweetened to taste as soon as you place them in the new coop. This way, they rehydrate and get a good, healthy start.



Building Your Broiler House

The ideal Broiler house should allow for proper ventilation, spacing, and be situated away from bushes in an area free of rats and wild birds; in addition, the house should be rat and bird proof. As one square foot of space is required per bird, the dimensions of the house need to be built in accordance with how many birds you intend to grow.

Example:

To accommodate **100 birds** the house needs to be **10'x10'** or **5'x20'**. To accommodate **500 birds**, the house should be **10'x50'** or **20'x25'**.

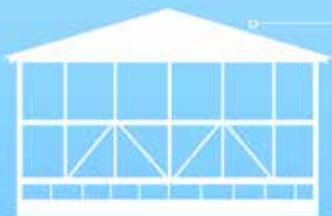
Preferably houses should be more rectangular than square, although this is determined by the available land space.

The Broiler house should be oriented East to West meaning that the narrow section should face East and the Wider Section should face North to South to reduce direct sunlight into the house.

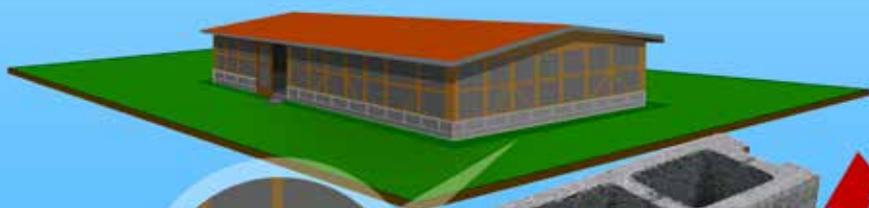
The floor should be concreted, with the posts at least 7-8 feet in height to allow for proper ventilation. The wall should be one block height from the ground with a ½"-1.5" mesh enclosing the coop.

The roofing should be peaked, and is usually contrived with zinc sheets.





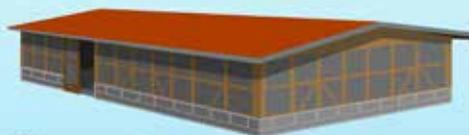
PEAKED ROOF



ONE BLOCK HEIGHT

COOP CONSTRUCTION

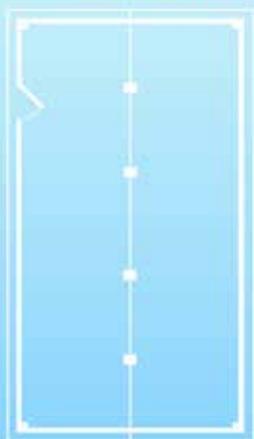
STOCKING DENSITY



* Birds per square feet

100 Birds = 10' x 10'
5' x 20'

500 Birds = 10' x 50'
20' x 25'





FARM SUPPLIES

GROW
 — WITH **Hi-Pro** —

- FEED
- CHICKS
- FARM SUPPLIES
- PHARMACEUTICALS



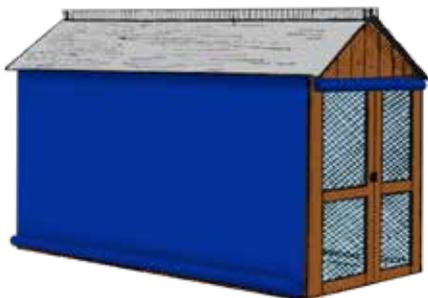
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Broiler House Equipment

CURTAINING



The purpose of curtaining or screening the chicken house is to:

- Protect chicks from draft especially during the brooding period.
- Retain heat within the house.
- Prevent rain blowing into the house.

The surface area of the curtain is to be unbroken or free of holes and must be held down tightly. When not in use, curtains should be neatly rolled to prevent obstruction to ventilation.



LIGHTING

Light should be evenly distributed throughout the house; the more bulbs used, the better. Good fluorescent lighting is especially important in the summer months to induce eating during the cooler hours.

A single 100 watt incandescent bulb is required to provide light for 1000 birds. However, the more evenly that bulbs are spaced to achieve this

intensity, the better the spread of light. Light intensity can be reduced to 40 watts at 4 weeks old.

NOTE: This light source is not a replacement for a heat source.

Broiler House Equipment continued

HEAT LAMP



The heat lamp features special incandescent bulbs which should hover a minimum of 18" above the chicks to provide warmth. Bulbs come in 125 watts and 250 watts. Two 250 watt bulbs can provide heat for 500 chicks.

WATERING EQUIPMENT



Chick Founts

Plastic poultry waterers are recommended for the baby chicks in early stages of growth and more specifically throughout the brooding process. Waterers range from one quart to one gallon with a screw-on base and lug design.

Plastic jars molded from durable, transparent polyethylene allow for observation and monitoring of the water level, reduces the need for storage space, and are easily handled.

Wash, sanitize and refill chick waterers with cool, fresh water each day

and ensure that water is available at all times.

WARNING: Chick Founts should not be used past three (3) weeks as they are easily knocked over, causing the litter to get wet and leading to diseases such as COCCIDIOSIS



Plassons

The plasson is used in brooding and growing out operations. It consists of a broiler ball and ballist bottle that is connected to the water source by a hose. The rise in the use of plassons directly relates to the decline of the traditional F60/80 system. Widely used on large farms, a single plasson can supply water to 50-75 birds.

Galvanized Cylindrical Fount

The double wall chick founts are made of heavy gauge metal and are available in 2, 3, 5 and 8 gallon capacity. Manufactured with rolled edges for chick safety, the fount is completed with locking pins to keep the cylindrical piece upright and in place. Founts can be galvanized or plastic and each fount can provide water for 100 birds.

Three Gallon Waterer

Once broiler birds have reached 3 weeks, their chick founts should be replaced with the 3-gallon waterer, which is ideal for larger birds that are drinking more. This waterer has a twist-lock connection that completely eliminates leakage. The unit is also easy to clean and will not rot, rust, or corrode.



Broiler House Equipment continued



FEEDING EQUIPMENT

Feeder Trays

Feeder trays are usually used in starting the broiler flock.

The trays are brightly coloured, rectangular and of convenient depth for baby chicks. One minor disadvantage with open feeder trays is that chicks can walk in and leave droppings on their feed.

Other design of feeders for baby chicks include a 20" Plastic Flip Top feeder fashioned with individual holes on both sides of the hinged, gabled lid to minimize waste.



Galvanized Iron Hanging Feeder

Hanging feeders are manufactured from high quality galvanized sheeting with rolled edges for safety. They are available in 13.5 and 18.0 kg (30 & 40 lbs) capacity with either a 35 cm (14")

or 43 cm (17") pan diameter. As an accessory, there is an additional Feeder Cover that can prevent roosting and protect feed.

Plastic Feeder

Fabricated from rugged plastic, this feeder will not corrode. It holds approximately 1/3 of a bag of 25kg broiler crumble so it keeps birds fed for a longer period. Because of its central funnel, which filters feed to the tray as required, wastage is greatly reduced. It is widely recognized as the more popular feeder.



Preparation of House

Prior to the arrival of baby chicks in a coop, certain measures are necessary to ensure their comfort and survival. Preparation includes spreading litter, bagging or curtaining sidewalls, and on the day of arrival, providing cool, clean water and feed.

Cleaning of House and Equipment

Wash all sidewalls, and cobweb ceiling and side meshwork; then apply a suitable disinfectant. If possible, remove, clean and sanitize all feed containers, waterers, brooders and chick guards.

Sidewall bagging

Feed bags, tarpaulin or similarly pliant materials should be used to curtain the sidewalls of the broiler house. The aim is to reduce the inflow of cold air, while trapping and retaining a warm, ambient house temperature.

Waterers

Waterers should be evenly distributed throughout the house so that all birds have easy access to water. Maintain a ratio of 1 waterer for every 100 birds up to 2 weeks; thereafter, use one 3 gallon waterer for every 25 birds; alternatively one plasson waterer to every 50-75 birds.

Note: Plasson waterers can be used from Day One straight through to six weeks.

Water

Fill Waterers several hours before delivery so water is house temperature by the time chicks arrive.



Preparation of House continued

Feed

Plastic feeder trays placed close to the brooder or feed spread on newspaper over the litter should be introduced about 2 hours after the arrival of chicks. Mechanical, pan, or trough type feeders, should be in place when the chicks arrive and adjusted to rest directly on top of litter.



Litter

Old litter that is not to be recycled should be removed and fresh litter spread evenly throughout the house. Any large, impeding objects like wood splints or metal should be removed. Before baby chicks are placed in the house, spread newspaper over the litter and leave for up to three days after chicks are placed in the coop, to prevent them from eating the litter.



**Hi-Pro Chicks grow best
on Hi-Pro Feed!**



MANAGEMENT OF BROILER HOUSE LITTER

Using good quality material as litter is as important as the handling or management of the litter. How it is treated during the growing period of the flock will determine the extent of its use. Litter should be:

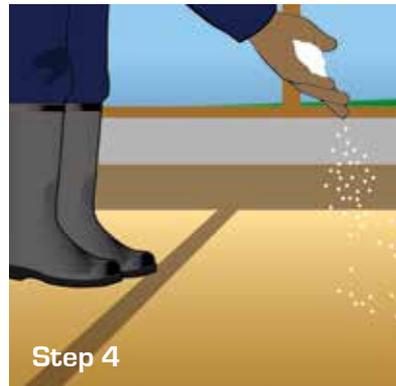
- a. **3" (8cm) thick but no more than 5" (13cm) thick**
- b. **Remove damp litter and rake the remaining litter to perfect compaction**

In cases where litter is re-used the following procedure is recommended:

- i. **Pile litter into a mound in the middle of the chicken house**
- ii. **Dampen the mound with water**
- iii. **Leave for 2-3 days. During this time, it will generate heat, burning and killing the bacteria and other insects inside.**
- iv. **Re-spread litter throughout the chicken house and sprinkle with white lime to ensure all bacteria and germs are killed.**

When there is not at least a clear week between 6-week old birds leaving and new chicks entering the house, the following procedure is recommended:

- i. **Remove the caked and wet litter**
- ii. **Remove excess feathers**
- iii. **Apply new litter in the brooding area with a paper covering for the first 3 days**



Preparation of House continued

The decision whether to reuse or to replace the litter should be made within the last week of the flock. When old litter is removed, it should be disposed of at a location far from the broiler house.

Regularly remove any accumulated faeces from the chicken house, as decomposition produces heat. Removal also keeps pests to a minimum.

TYPE AND QUALITY OF LITTER

The type of litter used depends on suitability, availability and cost to the farmer. Sawdust, wood shavings, and rice hulls are the most common choices.

Sawdust

Sawdust are the wood fragments that result from the process of saw milling. It provides a soft cushion for the birds; however it is limited in its capacity to absorb moisture and at times become dusty.



Wood Shaving

Wood shaving is highly regarded in broiler operations for its cushioning and high absorbency. Litter from wood shaving should be sprayed with a suitable antifungal chemical at least 5-7 days before baby chicks are placed in the coop.

Rice Hull

Rice hull, like bagasse, is used mostly in areas where it is easily available. It produces a soft underfoot but possesses little absorbency.

QUALITY LITTER

Good quality litter is:

- **Highly absorbent and at the same time maintains a consistent moisture level.**
- **Not dusty, musty or moldy, and provides a sufficient cushion for the feet of the birds.**
- **Clings together very slightly when squeezed tightly together and breaks when dropped from the hand.**

WARNING: Bitterwood and Hardwood must be avoided for their high tannin content and the ease with which they splinter. These are fatal to the birds. Avoid using sand and soil instead of litter; sand and soil are not as absorbent as litter so you risk your birds contracting an infection. Smaller chicks will also peck at sand because it is grainy like feed, but sand can affect gut health by causing a blockage.

PLACEMENT OF CHICKS

- **All equipment (feeders, waterers, heaters) must be carefully checked before the arrival of baby chicks to ensure that they all are functional.**
- **Activate heat sources so that chicks enter into a sufficiently warm house. During the cooler months especially, it is necessary to start the heating in advance of arrival. Short periods of chilling can significantly reduce the growth potential of broiler birds.**
- **Evenly distributed waterers should be set up hours before delivery so that drinking water reaches the ambient house temperature (28°C or 80-85°F)**
- **Carefully remove chicks from crates and place under heat source. Allow chicks to drink 2-3 hours before introducing feed. Mix sugar or glucose in their drinking water at a ratio of one teaspoon per gallon to hydrate and energize bird.**
- **Visit the house several times each day, particularly during the first 7-10 days to ensure that chicks are eating and drinking normally.**

Comfortable chicks are quiet and uncomplaining. Under normal circumstances, the house temperature should be reduced gradually each week until a temperature of 82 – 85°F is reached.

Brooding Management

THE FIRST TWO WEEKS OF LIFE

As baby chicks are unable to control their internal temperature for the first 10 days of life, you have to keep them warm just like a mother hen would by brooding. Brooding is an essential practice in raising broilers and is the basis for achieving good results. Often in small scale farming, heat lamps are used along with curtains or cardboard to prevent cold drafts of air from blowing through the chicken house.

The chicks' position relative to the heat source is an important indicator of comfort. Chicks are best observed at night as a guide to establishing whether they are comfortable or not. Comfort can be verified as follows:

- | | |
|---|--|
| A. Too cold/ Temperature too low: | Chicks will huddle under the brooder |
| B. Too hot/ Temperature too high: | Chicks move away from heat source and group near the sides of the house. |
| C. Drafty/ Cold Air Currents: | Chicks will huddle in one area to avoid draft |
| D. Correct temp/Optimal situation: | Chicks sound contented and are evenly distributed around the brooder |



The way you should position the brooder depends on its heat output and the insulation of the house. Where heat bulbs are used for brooding, at least 400 watts is effective in satisfying the heat requirement of 1,000 birds.

A brooding ring- a small area, within the house, that can comfortably accommodate the baby chicks should be enclosed to concentrate heat in the brooding area. Brooding rings can be constructed of wire and covered with paper.

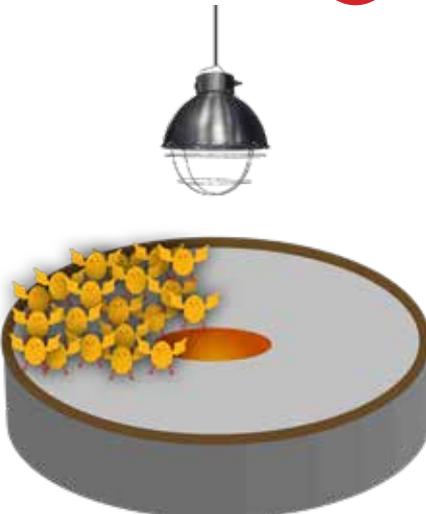
Whatever the brooding system, the desired temperature should be maintained at 35°C (95°F) throughout the first week regardless of outdoor temperature.

The brooding temperature should be reduced by 5°F each week until the ambient house temperature of 82°-85° is reached. Brooder height should be adjusted according to the bird's need with the aim of maintaining an ideal environment.

The ideal environment means

- Free of draft
- Adequate spacing
- Correct temperature
- Enough feeders and waterers

C. TOO DRAFTY



D. JUST RIGHT!



Water Intake & Feeding of Broiler Birds

WATER INTAKE

On arrival at the coop, chicks should have access to sufficient, fresh, cool, clean water. Chick founts should be in close proximity to the brooder- approximately 45cm (18") away- and placed alternate to the feeders.

Waterers should be raised about 2.5 cm (1") from the litter level to keep out debris and other contaminants. When chicks arrive in hot conditions they tend to rush toward the water founts and invariably get wet, a situation that leads to chilling. Place clean pebbles in the drinking pan of the fount to prevent litter from getting wet.



Water consumption increases as the ambient temperature of the coop rises especially during the hot summer months. So the hotter it is, the more water your birds require.

TABLE 1:
TEMPERATURE EFFECTS ON WATER CONSUMPTION PER 100 BIRDS AT 42 DAYS

TEMPERATURE	LITRES CONSUMED/DAY	LITRES/BIRD/DAY
20°C (70°F)	24	0.241
27°C (81°F)	33.6	0.336
33°C (92°F)	63.6	0.636

Intake also increases as the birds grow older and an adequate storage of water is necessary in the final weeks.

Adjust watering equipment as birds grow to ensure equipment is always slightly above the back of the bird.

TABLE 2: REQUIRED FEEDER & WATERER/CHICK RATIO

# OF CHICKS	PLASSON 3-GALLON	FEEDER
0-50	1	1
75	2	2
100	2	2
150	3	3
200	4	4
250	5	5
300	6	6

FEED & NUTRITION

The process of obtaining water and food that will be used for growth, development and maintenance is called nutrition.

Broiler birds use nutrients to perform bodily functions such as walking, eating, maintaining body temperature and breathing. Nutrients that provide the building blocks for this to happen include Carbohydrates, Protein, Fat, Minerals and Vitamins.

In isolation, these nutrients cannot meet the needs of the chicken. For instance, corn is high in energy but low in protein. Because no single ingredient can fully address the needs of the broiler, the nutritionist at Hi-Pro Feed combines the ingredients in specific proportions according to the age of the birds to create a complete feed ration. This feed can take the form of crumble or pellet.



Watering & Feeding continued

The primary objective when feeding broiler birds is to have maximum growth at an economical feed conversion. The Hi-Pro feed programme under a reasonable level of management has produced average weight of 2.33 kg (5.13 lbs) in 42 days at an economical feed conversion.

A bird eats to fulfil its energy requirements; once those requirements have been met, it will stop eating. This will happen even if their protein, mineral or vitamin needs have not been met. With this in mind the nutritionist at Hi Pro ensures that all nutrients are in balance with the energy needs of the chicken. This complex process requires specialized computer software and machines that constantly analyse the nutrient composition of ingredients and finished feeds. Because of all the complex steps involved, it is always better to feed chickens Hi-Pro Broiler Crumble and Hi-Pro Broiler Pellet, commercially produced feeds that have not been diluted. Maximum profits are achieved when birds are fed the full line of Hi-Pro Broiler feeds compared to homemade recipes.

For profitable broiler production it is counterproductive to “unbalance” a high quality diet with supplements if the chickens are in good health.

Common mistakes made while rearing healthy chickens are as follows:

- **Giving vitamins and electrolyte supplements for more than 10 days.**
- **Supplementing Hi-Pro feeds with corn and wheat middlings.**
- **Adding green chop (callaloo, lettuce or pak choy) to Hi-Pro Feeds.**
- **Administering medication not recommended by your vet.**

Recommended feeding programme

For every pound of weight gain in chickens they need approximately 2 pounds of feed. That means that a four pound chicken will need approximately eight pounds of complete feed. Table 3 outlines the Hi-Pro Feed guidelines for profitable production:

**TABLE 3:
FEED GUIDELINES**

Hi-Pro Feed Type	Feeding Recommendations		Day
	Kg	lbs	
Broiler Crumble (Starter/Grow Out Phase)	2.85	6.28	0-36 days
Broiler Pellet (Finisher)	0.7	1.54	5 days before slaughter

The above table is a guideline for purchasing feeds. The actual amount of feed consumed is dependent on the health of the birds, heat stress, availability of clean, cool drinking water, the breed of chicken, and the feed type selected [crumble vs pellet].

TABLE 4:
Nutrient Profile for Broiler Ration

Nutrient Profile	Min Protein	Min Fat	Comments
Broiler Crumble	20	3	
Broiler Pellet	18	3.5	Withdrawal feed with no medication to be fed at least 5 days before slaughter

CELMANAX

Celmanax is a yeast based additive that reduces the need for antibiotics when controlling gut health. The additive improves feed efficiency (less feed to consume per pound of meat), reduces the impact of heat stress, and improves bird uniformity.

For the wholesomeness (healthiness) of your dressed birds, feed Hi-Pro Broiler Crumble throughout Week 1 to 5 and Hi-Pro Broiler Pellet for at least 5 days before slaughter.

TABLE 5:
FEED GUIDELINES – Hi-Pro Broiler Ration (Crumble)

Growing period (days)	42
Final weight (kg)	2.33 (5.13 lbs)
Feed consumption (kg)	4.12 (9.1 lbs)
Feed Conversion Ratio (FCR)	A good farmer should get 1kg of weight gain for every 1.79kg of feed
Daily gain (gm)	54

Feeding equipment should help reduce feed wastage and improve feed conversion. Plastic feeder trays (see page 8) are recommended for feeding baby chicks during the first 7 days. The trays should be kept close to the brooder for the first few days and gradually moved away in the days that follow. Feeder trays should be filled to 2/3 capacity for the first day and maintained at not more than 50% volume.

In the absence of feeder trays, chicks can start with feed spread on paper over the litter, however care must be taken to prevent the ingestion of splinters and other harmful particles.



FARM SUPPLIES



Small farmers can grow 200 birds, earning 6-8 weeks minimum wage in the 6 weeks it takes to raise the birds.



Lighting and Ventilation

LIGHTING PROGRAMME

The demand for rapid growth, especially under adverse management conditions, is said to reduce the liveability of birds. Research shows that the use of a managed lighting programme can be beneficial in lowering mortality due to leg problems, sudden death syndrome and ascites – an accumulation of fluid in the abdomen.

A recommended lighting programme for growing broilers is as follows:

1. **Provide 24 hours of bright light each day for the first 3 days after the chicks hatch.**
2. **Provide 18 hours of light (6 hours of darkness) each day from 4 to 6 days of age**
3. **Provide 12 hours of light and 12 hours of darkness each day from 7 to 21 days of age. For example, you could turn the lights off at 6:00 p.m.(or bed down at sunset) in the evening and have the birds rise at sunrise the next morning (6:00 am)**
4. **From 4 weeks of age to market, provide natural daylight.**

VENTILATION

Ventilation is one of the difficult aspects of broiler production. The fast growth rate of birds, high stocking density and the need to grow birds to heavier weights have made ventilation even more important.

Ventilation in the broiler houses serves to:

- a. **Remove excess heat and moisture**
- b. **Provide oxygen while removing harmful gases e.g. ammonia**
- c. **Reduce the build-up of dust and improve air quality**
- d. **Facilitate the increased carrying capacity of the house**
- e. **Extend the life of broiler equipment**
- f. **Reduce upper respiratory tract disorders**

A good ventilation system can influence and improve:

- a. **Liveability**
- b. **Growth rate**
- c. **Feed conversion**
- d. **Processing condemnation**

Ventilation System

The ventilation requirements change as the birds grow older and as temperature, humidity and climatic condition change. The common ventilation systems are:

- Sidewall curtain + natural ventilation**
- Sidewall curtain + fan to supplement natural ventilation**
- Power ventilation + fans to provide air movement**
- Environmentally controlled (tunnel ventilation)**



Hot Weather Ventilation

Controlling heat build-up and maintaining bird comfort can be accomplished by:

- Reducing flock density
- Feeding or making feed available in cooler periods of the day
- Increasing the number and efficiency of fans
- Raising side curtains in the brooding house during the day
- Building house with roof vents

NOTE: Always have a thermometer placed at least 1' (12" or 30 cm) from the floor of the coop to monitor heat in the house.

HOT WEATHER TIPS

During the hot days, walk through the house to stir the flock; on farms with automatic feeders, turn on the feeder system to stir the birds. To feed during the warmer hours of the day is still not recommended.

On very hot days:

- **Spray roof with water**
- **Shade water storage containers**
- **Add ice to drinking water or paint black water drums white so they attract less heat and the water remains cool**
- **If possible, add extra waterers**
- **Remove wet litter from the house**
- **Lift feeders during hot part of day, then lower them when it gets cool**





Hi-Pro SUPER HIPROVIT

with
CELMANAX



**Water Soluble
Vitamins &
Electrolytes**

For Broilers, Breeders,
Layers, Pullets and
Turkeys

GROW
— WITH **Hi-Pro** —



Health Considerations



Hi-Pro chicks are vaccinated at Day One for Newcastle, Infectious Bronchitis and Infectious Bursal (Gumboro) Diseases.

Prevention is by far the best and most economical method of disease control. Prevention is mainly achieved by the implementation of effective bio-security and vaccination programs, proper husbandry practices, and an in-depth knowledge of disease management.

The health status of the bird is of utmost importance and can be greatly affected by flock management and production. This includes growth rate, feed conversion efficiency, liveability, and condemnation. These are factors that determine the profitability of the business.

One has to be vigilant, keen and knowledgeable of diseases to effectively detect illness early. Illness can be detected and treated in a timely manner by:

- **Consistently monitoring flock health and production parameters.**
- **Seeking veterinary intervention.**

EARLY ILLNESS RECOGNITION

Early identification and action with a flock will help reduce disease spread in surrounding and successive flocks.

Also ensure biosecurity measures are maintained and cleaning and disinfection practices are followed.

Some key factors in early illness recognition include:

- **Changes in feed and particularly water intake.** These can be one of the first indications of disease so feed and water intake must be closely monitored.
- **Changes in behaviour and appearance such as colouring, uniformity, and size.** These should be observed daily.
- **Respiratory noise, distress, faecal droppings (colour and consistency), and vocalization of birds.**

Utilizing your five senses- hearing, smell, sight, taste, and touch- can aid in the early detection of illness in your flock.

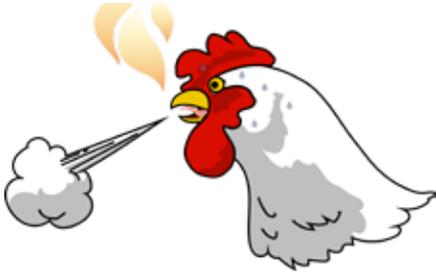
Once symptoms are detected, a Veterinarian should be consulted.

HEAT STRESS

Heat stress is a condition suffered by birds grown in temperatures in excess of 32°C (90°F). A chicken's normal body temperature is between 40°C and 41°C (104°F and 107°F) but as they do not have sweat glands, they are unable to regulate their body temperature.

A clear sign that birds are undergoing heat stress is heavy panting and the drooping or spreading of wings.

Some tips to prevent and control heat stress are:



- **Add ice cubes or blocks of ice to their drinking water** as this will cool the birds, eventually lowering their body temperature.
- **Adjust feed intake so that the birds feed during the cooler periods of the day and night.**
- **As digestion naturally produces more heat, remove feed from the birds by lifting the feeders during the hottest time of day.**
- **If possible, walk through the house gently and regularly to encourage air circulation around the birds.**
- **Avoid overcrowding the chickens and give birds more space if possible.**
- **Improve ventilation by using fans, raising curtains, and removing bush and other objects from around the chicken house.**
- **Stimulate water consumption by cooling water and using supplements rich in Vitamin C.** Refferhydraboost Plus and Antistress- both used to control heat stress, are available at Hi-Pro Farm Supplies and other local farm stores.

Health Considerations continued

COMMON DISEASES/ILLNESS IN BROILER BIRDS

NOTE: Consult with a veterinarian on treatment of the various illnesses and disease.

ACUTE DEATH SYNDROME

Commonly known as Flip-over disease causes serious mortality in broiler chickens.

Flip-over disease usually affects the larger and rapidly growing broilers that are between 3 and 5 weeks old. The condition can also affect small farm flocks.

SIGNS

- Birds are often found dead on their backs with their legs stretched out behind them and their necks extended forward. Occasionally, a dead bird is found on its stomach.
- There is rarely any sign of sickness prior to such deaths but some people have observed a bird, which appeared to be perfectly normal, suddenly squawk, jump into the air, and land on its back.

CAUSE

The cause of flip-over disease is still obscure. Heart attacks and enterotoxaemia have both been suggested as causes, but neither theory has been substantiated

PREVENTION

Decreasing the light intensity in broiler houses, thereby slowing down the birds' activity appears to reduce incidence of flip-over disease. Other than keeping the birds as calm as possible, there is very little that can be done to prevent flip-over in broiler flocks.

ASPERGILLOSIS

A fungal infectious disease, caused by *Aspergillus fumigatus*, in which the typical sign is gasping for breath, especially in young chicks. Sometimes the same organism causes eye lesions or chronic lesions in older birds. The fungus can infect plant material and many species of animals including birds and man. Occasionally similar lesions are produced by other species of *Aspergillus* or even other fungi such as *Penicillium*, *Absidia* etc.

SIGNS

Acute form:

- Lack of Appetite
- Weakness
- Silent gasping
- Rapid breathing
- Thirst
- Drowsiness
- Nervous signs (rare)

TREATMENT

Usually none. Environmental spraying with effective antifungal antiseptic may help reduce challenge. Copper Sulphate can be given in drinking water, however the efficacy is low.

PREVENTION

- Store feed in a dry place to avoid growth of mould
- Dry, good quality litter and proper sanitation

Chronic Form:

- Ocular discharge (ocular form only).
- Weight loss (Wasting).

LITTER BUG INFESTATION

A condition in poultry caused by infestation of the external parasite *Cimex lectularius*. The parasites are up to 5 mm long and feed at night. It occurs mainly in subtropical and temperate areas. Adult parasites can survive in the environment without feeding. Eggs laid by the adult parasites hatch in 3-5 days. There are five nymphal stages, each of which feed on birds. Growth to adult parasite takes one to three months, depending on temperature.

SIGNS

- Lethargy
- Anaemia
- Reduced production when infestation is serious.

TREATMENT

Appropriate treatment of the environment, in particular the cracks and crevices where the parasites hide during the daytime using insecticide or fumigation. Insecticides include: Malathion 50%, Carbaryl 80%, Diazinon 48% and Acetellic (Primiphos-Methyl), which have proven to be safe and effective solutions.

PREVENTION

Thorough treatment of the empty building at turn-around with an appropriate insecticide.

CANNIBALISM, FEATHER PECKING

A complex multifactorial behavioral problem of poultry and game birds seen worldwide. Chickens will literally pick each other to death. This problem can be expensive for the producer and makes life uncomfortable for the flock. Once cannibalism starts, it readily becomes a habit that must be stopped. Morbidity is usually low but mortality is high among affected birds. Predisposing factors include overcrowding, excessive light intensity or variation (e.g. through shafts of light in the house), high temperatures, nutritional deficiencies, tenosynovitis and other diseases affecting mobility, boredom, and strain of bird. Prevention is much easier for man and bird than is treatment.

SIGNS

- Pecking at feet (especially young chicks) and vents, head, face, wings.
- Feather-pulling, wet vent feathers

CAUSES

- Overcrowding
- Insufficient feeders and waterers
- Flock nervousness or overexcitement (may be breed related)
- Dietary absences or deficiencies
- Incorrect lighting (usually too much light)
- Lameness left in the flock

Health Considerations continued

- Stresses due to moving birds or making other necessary management changes
- Timid birds in the flock that are not getting enough feed or water
- Extremely high environmental temperatures
- Abrasions or tears that may be the result of an accident.
- Diseases, especially if the nervous system is affected.
- Pure meanness on the part of the birds.



TREATMENT

The first step in a cannibalism control program is to give the birds the best care possible. Correct management conditions that may contribute to an outbreak before one occurs. Soluble multivitamins such as HiProvIt with Celmanax, Formula One Plus and Mineralytes Plus Biotin, or Methionine may be of benefit in some circumstances.

PREVENTION

Ensure proper density and temperature are appropriate at all times, and control ectoparasites. Remove all sick, weak, small, or odd colored chicks. Birds will attack and kill these chicks as a survival instinct, resulting in widespread cannibalism throughout the flock. Provide plenty of feed and water; birds should have access to feed and water at all times. Bright lighting increases bird activity and cannibalism, so reduce brightness of light. Keep the house temperature comfortable as hot house temperatures aggravate birds and make them more irritable.

COCCIDIOSIS

Coccidiosis is a parasitic disease of the internal intestinal tract of which the causative agent is *protozoa*. A warm environment and high humidity (wet litter) is perfect for the organism to multiply.

Coccidial oocyst (developing eggs) are ever present in used litter contaminated by the droppings of previous flocks. Birds are infected by ingesting the sporulated oocyst in feed, water, litter and soil. The organism can be transported on dust, shoes, baby chick boxes and can survive for months in the litter.

SIGNS

- Bloody faeces
- Ruffled feathers
- Anaemia

- Reduced head size and somnolence
- Droopiness and listlessness
- Loss of appetite
- Loss of yellow colour in shanks
- Pale combs and wattles



- Huddling or acting chilled
- Blood or mucus in the faeces
- Diarrhoea
- Dehydration
- Death.
- Poor feed digestion, weight gain and feed efficiency

CAUSE

The disease is caused by 9 different species of coccidia of which the most important are: *Elmeria* (E) *acervulina*, *E. necatrix*, *E. tenella*, *E. maxima* and *E. brunetti*, each affecting a different part of the intestine.

TREATMENT

Amprolium, Celmanax, and some sulphonamides are the drugs of choice

PREVENTION

- Use feed containing appropriate coccidiostats such as Hi-Pro Feeds
- Practice proper litter management to eliminate wet areas in the house
- Maintain and use the footbath as a method of preventing house to house contamination
- Keep your coop dry; coccidia proliferate in wet conditions. Remove and replace any wet litter.
- Keep water and feeders level to chickens backs to prevent them from pooping in them.
- Keep chickens in coop or enclosed in a roofed run during a long spell of rain and no sun. Let them out when the ground has dried out.
- Keep grass short and make sure that the sun hits all the grass at least for some time of the day. No deep shade spots if you have trees.
- Replace bedding and sanitize coop ensuring you use a product made to kill protozoans. If this is not possible add a 6 inch layer of new bedding or gravel to coops and runs.
- Sanitize all feeders and waterers rinsing with natural- not synthetic- white vinegar and placing in the sun to dry.
- Administration of Celmanax in drinking water during the first few days

CHRONIC RESPIRATORY DISEASE (CRD)

Also known as *airsacculitis* and MG (*mycoplasma gallisepticum*), CRD affects the entire respiratory tract including the air sacs. The disease is important, not by itself, but because it attracts secondary invading organisms such as *E. Coli*.

Stress conditions (moving birds, debeaking, cold or poor ventilation) increases the susceptibility of birds. Mortality is usually low and economic losses are due to reduced body weight and poor feed conversion.

Health Considerations continued

CAUSE

CRD is due to *Mycoplasma gallisepticum* and the condition is frequently triggered by respiratory viruses (IBV and NDV) and bacteria that have an affinity for the respiratory tract. Other factors such as nutritional deficiency, high ammonia level and dust contribute to the severity of the disease.

SIGNS

- Respiratory distress; coughing and sneezing
- Snicks, rales, sometimes with eye and nasal discharge
- Decreased feed intake, body weight and poor feed conversion

TREATMENT

Neo-Chlor Plus, Menorox® and Neo-Oxytetracycline.



PREVENTION

- Good management and sanitation must be the daily practice in the event of infection
- Avoid high ammonia levels, dust, overcrowding, and poor ventilation
- Remove infected flocks; then clean, disinfect and rest house for 3-4 weeks before re-stocking

COLIBACILLOSIS OR COLISEPTICEMIA

Coli-septicaemia is an infectious disease of farmed poultry. It is most commonly seen following upper respiratory disease. Caused by the bacterium *Escherichia coli*, it is seen worldwide in chickens and turkeys.

SIGNS

- Respiratory signs, coughing, sneezing
- Snick
- Dejection
- Reduced appetite
- Poor growth



TREATMENT

Amoxicillin (Avimox®), Neomycin (intestinal activity only), Neo-Chlor Plus®, Potentiated Sulphonamide (Trisulvitrim®), and Menorox®.

PREVENTION

- Good sanitation of house, feed and water.
- Control of predisposing factors and infections by vaccination.
- Ensure proper ventilation and chlorination of drinking water to reduce the levels of environmental contamination.

GANGRENOUS DERMATITIS

Gangrenous dermatitis (GD) is a disease affecting growing birds, characterized by gangrene of different skin areas and of the subcutaneous tissue. The sudden and quick increase in death rates is often the first signal for the incidence of GD. The lesions range from dark red to blue green macerated skin areas, usually featherless, beginning generally from wings and adjacent areas. Affected birds die after less than 24h.

CAUSE

Bacterial infection by the *Clostridium* and *Staphylococcus* species, independently or combined. The associated infection is more severe. The skin lesions are often crepitating and are detected in the regions of breast, abdomen, back or wings in both alive and dead birds.

PREVENTION

- Good management and sanitation must be the daily practice in treating the infection.
- Maintain good litter management, by removing dead birds and any other animal carcasses immediately from the house.
- Remove old, rusty nails or sharp objects, ends from the litter or mesh inside of the house.

NEWCASTLE DISEASE (ND)

Newcastle disease (ND) is highly infectious. The disease usually occurs in chicken but can affect all other species of poultry. Transmission is through oral and respiratory discharge and faeces of infected birds. By law, this disease must be reported at once.

CAUSE

The disease is caused by *Paramyxovirus*, a virus that is heat sensitive.

SIGNS

- Respiratory distress and nervous disorder
- Transient coughing, sneezing and rales
- Marked depression and prostration (laying down) in young chicken with abnormal positioning of the head ('star gazing')
- Dyspnea (short of breath), violent green diarrhoea, conjunctivitis, and paralysis
- Death usually occurs within 3 days and mortality can be high as 100%

Health Considerations continued

TREATMENT

There is no known treatment for ND which makes prevention very necessary.

PREVENTION

- Vaccination (live or inactive vaccine) of the day old chicks is the only reliable method of control
- Proper sanitation and hygiene

INFECTIOUS BRONCHITIS (IB)

Infectious bronchitis (IB) is a highly contagious viral respiratory disease. The importance of IB infection is its negative effect on the bird's growth rate and feed efficiency; flocks also have a high percentage of condemnation at processing.

SIGNS

Baby chick

- Wheezing, coughing and sneezing are detectable at night
- Watery eyes, nasal discharge and swollen sinuses can be seen
- Mortality is usually low but in cases of secondary infections may reach 50%

Growing broiler birds are not generally affected by infectious bronchitis.

TREATMENT

There is no known treatment of IBV making prevention highly critical.

PREVENTION

- Vaccination is a reliable means of control
- Sanitation and good hygiene
- Where there is infection, avoid the spread from house to house through equipment, feed and vehicles.

INFECTIOUS BURSAL DISEASE (IBD)

The highly infectious Bursal Disease (IBD) is also known as Gumboro in reference to the district of Delaware, USA where it was first recognized. The disease usually affects birds that are 3-6 weeks old. The course of the disease is very short, stunting the bird's growth and affecting their immunity.

CAUSE

The disease is caused by a *Birnavirus* which is quite stable and resistant to environmental conditions and many disinfectants

SIGNS

IBD can be either clinical (apparent infection) in birds 3-6 weeks or sub-clinical (unapparent infection) in birds 1-3 weeks

Clinical IBD

- Whitish watery diarrhoea observed at 2-3 days with paste vents and vent pickings is very common
- Sudden loss of appetite, ruffled feathers, trembling and lack of coordination
- Listlessness, paleness and depression, huddling and droopiness
- Mortality can be as much as 20% and morbidity ranges from 20% to 100%

Clinical signs usually disappear within 10-14 days

Subclinical IBD

- Little or no signs are observed
- Decreased body weight gain and an increase in feed conversion ratio
- Increased susceptibility to other diseases
- Reduce response to the vaccines as a result of immunosuppression

TREATMENT

There is no treatment for IBD but the water administration of vitamins and electrolytes can alleviate the severity of the disease.

PREVENTION

- Vaccination of parent flocks
- Vaccination of Day old chicks at the hatchery
- Sanitation, though absolutely necessary, it is not totally effective because of the high resistance of the IBD virus

FOWL POX (Yaws)

Fowl pox or yaws is a viral disease illustrated by lesions on the skin, neck, and feet and internal lesions of the digestive and respiratory tract. The virus is transmitted by direct contact through water and feed. Mosquitos and other insects are vectors of the virus.

With vaccination, incidence of the disease has significantly reduced making fowl pox of reduced economic importance.

CAUSE

The disease in chickens is caused by a *Poxivirus (Avipox genus)*.

SIGNS

The disease spreads slowly and quietly and may go unnoticed until cutaneous lesions are observed. There are two forms of the disease:

1. Cutaneous or 'dry pox'
 - Progressive decrease in body weight gain
 - Yellowish to dark brown wart-like lesions on the head, comb and wattles
2. Diphtheritic or 'wet pox'
 - Depression and lack of appetite
 - Dyspnea, nasal and ocular discharge
 - Mortality is generally by suffocation and dehydration

PREVENTION

Vaccinate birds by the wing web with the fowl pox vaccine.



FARM SUPPLIES



ANTIBIOTIC

- Menorox
- Amprofur
- Neo-Oxytetracycline

PROBIOTIC

- Celmanax

VITAMIN

- Referhydraboost
- Hemoplex
- Chick Boost
- Mineralytes Plus
- HiProvit

- Anti-Stress
- Formula 1 Plus
- Spectrum

ANTIBIOTIC WITH VITAMIN ADDITIVE

- Neo Chlor Plus
- Trisulvitrim
- Poly-tonine A

DEWORMER

- Polywolmerzine

DISINFECTANT

- Avimox
- Virkon
- Duosan
- Checkerphene
- Jayes



**The Widest Range and Best Lines of Veterinary
Pharmaceuticals for your Animals.**

Slaughter & Processing

PREPARATION FOR CATCHING

After investing time, energy and money to grow quality birds it is important that they reach processing with minimal bruising. In cases where birds are transported for processing, most bruising occurs during catching, caging, transport and unloading of birds.

PARAMETERS

Target Weight of Birds by Week (1-42 DAYS)

Week (days)	Average weight by kg (lbs)	ADG (gm)
0	0.042 (>.0925)	0
1 (7)	0.15 (<.33)	15
2 (14)	0.40 (.88)	25
3 (21)	0.80 (1.76)	36
4 (28)	1.30 (2.87)	45
5 (35)	1.75 (3.85)	49
6 (42)	2.33 (5.13)	54

Average day old weight – 40 grams



Slaughter & Processing continued

PREPARING FOR SLAUGHTER

- Remove feed from birds 8-10 hours before slaughter time.
- Maintain drinking water up to the time of slaughter.
- Prepare slaughtering area by cleaning and disinfecting with bleach
- Prepare hot water for scalding
- Put ice and water in place for chilling (cooling) carcasses.
- Ensure that there is adequate amount of clean water available (chlorinated water).
- Have a thermometer on hand!



BLEEDING

- Catch birds by the feet and place in killing cones head down
- Take the head in one hand with the comb in the palm and use a sharp knife to cut jugular veins on both sides of the neck.
- Bird's neck should be firmly held.
- After bird stops moving, dip in hot water (140°F or 60°C) for 30-40 seconds.
- Move birds up and down to get good penetration. A little soap in the water helps.
- Remove feathers by rubbing.
- Use open flame to get off those hard-to-remove fine feathers.
- Place the carcass in cool water (icy slush). This prevents growth of bacteria and prevents browning of the skin.



PLUCKING (EVISCERATING) AND WASHING

- This process is to be completed in a screened and enclosed room.
- Take the carcass out of cool water and place on a flat solid surface. Cut off feet and remove the head.
- Slit skin on the bottom of neck from head to body and remove windpipe and crop.
- Cut off oil gland at the base of the tail. (optional)
- Carefully make an incision in the body cavity and gently pull out intestines, gizzard and heart.
- Remove the lungs (embedded in ribs).
- Clean and rinse the gizzard, liver and heart.
- Rinse the carcass with clean, cold water.



CHILLING, PACKAGING AND STORING

- Place the carcass in ice water, lowering the temperature to 40°F (4°C).
- Remove chilled carcass from ice water and allow to drain before putting in bag.
- Place in freezer bags for long-term storage or the refrigerator for short-term storage (less than 4 days).

DEAD BIRD DISPOSAL

Dead birds are a major environmental and economic risk to poultry production and human welfare primarily because a significant proportion of poultry death is due to disease. Methods of disposal include incineration and dead disposal pits.

Contact your public health officers as to the proper disposal of mass dead birds on your farm.

Glossary of Terms

Ambient temperature

The temperature of the surrounding environment

Necrotic

Pertaining to dead tissue.

Comb and Wattles

Fleshy growths at the tops of the heads of chickens are called combs. Wattles are the fleshy growths that hang below the chin of the chicken.

Fumigation

Disinfect or purify [an area] with the fumes of certain chemicals.

Morbidity vs. Mortality

Morbidity refers to the unhealthy state of an animal; **Mortality** refers to the dead state of an animal.

Snick

Abnormal respiratory sound.

Rale

An abnormal crackling or rattling sound heard from the chest of broiler birds while breathing.

Crop

Enlarged part of the digestive tract of birds that serves as a temporary storage space for food.

Roosting

To settle or congregate for rest or sleep.

Feed Conversion Ratio

Measure of an animal's efficiency in converting feed consumed to weight gained

Dealer Listing

HI-PRO FEEDS & FARM SUPPLIES -

Telesales Department: (876) 749-0682 **Toll Free:** 1 (888) 994-4776

CLARENDON

Agrinova Farm Supplies

Main Street, Spalding
Clarendon
964-0004

Bennett's Agricultural Supplies

Main Street, Spalding
Clarendon
964-0368

Bushville Farm Products Ltd.

Bustamante Drive, Lionel Town
Clarendon
383-4276

Carib-Gro Agro & Garden Supplies

Main Street, Spalding
Clarendon
964-0568

Church Trends

Main Street, Sandy Bay
Clarendon
986-8468

Consolidated Farm Supplies May Pen

14 Main Street, May Pen
Clarendon
567-3788

CTS Farm Store

Main Street, Chapelton
Clarendon
987-2257

Douglas Farm Store

Main Street, Kellits
Clarendon
458-9093

Island Farm Supplies Ltd.

Howard Avenue, May Pen
Clarendon
9021908

Kellits Farm Store

Main Street, Kellits
Clarendon
350-6486

Osborne Store Farm Store

Main Street, Osborn Store
Clarendon
541-7769

Pennants Enterprise

Main Street, Kellits
Clarendon
966-8011

PH Agri Farm Supplies

Main Street, Spalding
Clarendon
579-3377

Spaldings Variety Store

Main Street, Spalding
Clarendon
964-0777

Reid's Farm Store (Successors)

2-4 Church Street, May Pen
Clarendon
902-7169

Tropical Feeds

138 Murhead Avenue, Denbigh
Clarendon
787-4628

Dealer Listing continued

True Friends Emporium

2 Decoy Road, Tollgate P.O.
Clarendon
987-1017

Value-Plus Hardware & Farm Supplies

Nine Turns Road, Frankfield
Clarendon
904-4419

HANOVER

Best Choice Hardware Ltd.

Mosley Drive, Lucea
Hanover
956-2565

Consolidated Agri Supplies Limited

Main Street, Hopewell
Hanover
460-6365

JAS Feed Store

Miller's Drive, Lucea
Hanover
543-2801

L'Astro Haberdashery

Main Street, Lucea
Hanover
375-5040

O&S Farm Store

Cambleton, Hanover
367-9494

Western Landscaping & Farm Products Ltd.

Old Lucea Bus Park, Lucea
Hanover
854-2681

KINGSTON / ST. ANDREW

Bellies Wholesale

2 Golding Avenue, Kingston 6
631-8095/ 289-5028

Chancery Farm Supplies

Fairdene Avenue, Kingston
St. Andrew
879-5450

Consumer Goods

99 Orange Street, Kingston
922-4140/924-1897

Kenneth Sham Wholesale

Hamilton Plaza, Red Hills
St. Andrew
876-945-8213

Monica Bigby-Milloy

Shop #2, Gavell's Plaza, Main Street,
Stony Hill, Kingston 9
312 6660/648-6610

Spanish Grain Store Limited

15 Second Street, New Port West
Kingston
923-4510

Super Pet & Garden Center

128 Constant Spring Road
Kingston 8
969-5182

Super Valu Supermarket Ltd.

56 Mannings Hill Road
Kingston 8
969-1035

MANCHESTER
Christiana Midway Farm Supplies

Shop #4, Moravia Road, Christiana
Manchester
964-5756

D.A.S.H. Farm Supplies

18 Mandeville Plaza, Mandeville
Manchester
962-2121

D&D Farm Supplies

Main Street, Christiana
Manchester
964-4588

Farmers Bargain Hut

Main Street, Christiana
520-6453

K.D.L. Agri Supplies

Shop #4 Lane Plaza, Mandeville
Manchester
625-4247

Linclaud Agricultural Supplies

Shop 2-3 Wesley Plaza, Mandeville
Manchester
625-0437

Manchester Livestock

Lot 4 Leaders Plaza, Mandeville
Manchester
632-4799

Palmer's Enterprise

Mile Gully, Manchester
610-7256

Price Vault Farm Store

Main Street, Christiana
Manchester
870-1170

Super Farm Store

32 Mandeville Plaza, Mandeville
Manchester
961-0255

PORTLAND
Denroy Palmer

Manchioneal, Portland
734-5393

Diversity Farm & Garden Supplies

Main Street, Annotto Bay
Portland
996-2357

Eastern Total Supplies Co. Ltd

6 William Street, Port Antonio
Portland
993-9778

Gavin Scott Farm Store

Main Street, Annotto Bay
Portland
386-1037

J&M Farm Supplies

Golden Grove, Portland
450-0437

J Mars Farm & Garden Store

7 Thompson Avenue, Buff Bay
Portland
465-4780

Marie Speight Farm Store

Hope Bay
Portland
285-5301

Peat's Self Serve

3 Nelson Avenue, Buff Bay
Portland
996-1502

Quadaccey Farm Store

Mount Pleasant
Portland
416-2837/ 569-5668

Walcott Kirkland Farm Store

Orange Bay
Portland
866-0099

Dealer Listing continued

ST. ANN

A&G Enterprise

Wakefield
St. Ann
610-2056

A&G Agricultural Supplies

Claremont
St. Ann
972-1243

A&G Agricultural Supplies

3 Musgrave Street, St. Ann's Bay
St. Ann
972-1243

Besenti Newland

Main Street, Iverness
St. Ann
964-4588

Cave Valley Farm Supplies

Cave Valley
St. Ann
902-8172

Huang Farm Store

3 Huntley Ave, Brown's Town
St. Ann
484-6126

K&R Farm Supplies

5 Main Street, Brown's Town
St. Ann
917-8360

Meeks Farm Store

McNie
St. Ann
375-6040

Morris Hill Limited

Main Street, Alexandria
St. Ann
975-1687

Northeast 2008 Agri Supplies

139 Main Street, Ocho Rios
St. Ann
974-2124

Northern Agri & Hardware

Claremont
St. Ann
876- 972-3130

New Plus Supermarket

All National Complex, Salem
St. Ann
8769736483

Plum Line Farm Store

Main Street, Alexandria
St. Ann
975-1375

PRC Traders

Evelyn Street, Ocho Rios
St. Ann
974-5715

PRC Traders

Moneague
St. Ann
876-973-0505

Reliance Farmstore

Main Street, St. Ann's Bay
St. Ann
972-2629

Ringo's Farm Store

Alexandria
St. Ann
418-5944

Vassell Long

Moneague
St. Ann
583-4086

Wilson's Farm Supplies

27 Top Road, Brown's Town
St. Ann
876-466-2189

ST. CATHERINE
B&D Harris Grain Store

1 Gillette Street, Linstead
St. Catherine
985-2877

Big Tree Enterprise

Big Tree Plaza, Bog Walk
St. Catherine
708-2082

Calverty Farm Store

27 Cumberland Road, Spanish Town
St. Catherine
796-7878

Carib-Gro-Agro & Garden Supplies

Guy's Hill
St. Catherine
994-3570

Cee Bee's Hardware

Little Greendale, Spanish Town
St. Catherine
349-1972

D&C Feeds

Church Road, Bog Walk
St. Catherine
452-0508/350-2863/866-6389

Doreen Chambers Farm Store

Allman Hill, Golden River
St. Catherine
428-1358

Esau Graham

Shop #85 Bus Terminus, Spanish Town
St. Catherine
984-9655

Farm and Garden Depot

6 Royal Avenue, Linstead
St. Catherine
322-4995

Fong Food Trading Co. Ltd.

70 King Street, Linstead
St. Catherine
468-1429/591-5881

Farm Grain & Variety Store

King Street, Linstead
St. Catherine
306-5642/ 851-2368

Good Price Feed & Farm Store

Lluidas Vale, St. Catherine
406-4601

Hayes Hardware

Haycity, Guy's Hill
St. Catherine
893-4395

Jodan Distributors

Company Ltd.
52 East Street, Old Harbour
St. Catherine
983-0616/ 470-7791

Marquita Tulloch

113 St. John's Road, Spanish Town
St. Catherine
342-7416

Mundel Famstore

79 King Street, Linstead
St. Catherine
451-0923

Retreat Grocery & Snack Shop

Glengoffe
St. Catherine
458-4368

Dealer Listing continued

S&L Farming & Garden Supplies

99 Darlington Drive, Old Harbour
St. Catherine
850-5477

Old Harbour Farm Store

Old Harbour
St. Catherine
745-4889

Spanish Town Farm Store

Shop 67, Gateway Plaza
Spanish Town
St. Catherine
984-9655

W&B Enterprise Variety Store

Gordon Wood, Old Harbour
St. Catherine
983-0489

Waves Farm Store

9 Darlington Dr
Old Harbour
St. Catherine
424-8497

WT Feeds

Kitson Town
St. Catherine
468-4314

ST. ELIZABETH

Agri-Care Farm Supplies

Shop #10 Manifest Plaza
Santa Cruz
St. Elizabeth
966-9618

Agri-Chem Farm Supplies

Balaclava P.O., St. Elizabeth
277-5479

AR's Farm Store

Main Street, Balaclava
St. Elizabeth
369-3590 or 894-3169

Carib-Gro-Agro & Garden Supplies

High Street, Black River
St. Elizabeth
965-2033

Carib-Gro-Agro & Garden Supplies

Shop 16, Beagles Plaza, Santa Cruz
St. Elizabeth
966-2636

Cole's Farm Store

Main Street, Santa Cruz
St. Elizabeth
966-9788

Consolidated Agri Supplies

North Street, Black River
St. Elizabeth
529-8455

Dawkins Cost U Less

Beacon, St. Elizabeth
457-7657

Deliver On Time Hardware

Maggotty, St. Elizabeth
963-9272

Evans Farm Store

Red Bank P.O.
St. Elizabeth
340-3146

Green P Farm Store

Potsdam District, Monroe
St. Elizabeth
792-1736

F.V. Farm Supplies

Southfield
St. Elizabeth
965-6166

Farmers Paradise

Main Street, Lacovia
St. Elizabeth
773-4636

Four Roads Farm Store

Four Roads Shopping Centre
Lititz, St. Elizabeth
4351812

Golden Harvest Farm Store

Claremont Park, St. Elizabeth
357-1317

Farmers Paradise

Main Street, Lacovia
St. Elizabeth
773-4636

Hampton Wholesale & Retail Centre

Hampton District
Malvern P.O., St. Elizabeth
341-6698

Junction Farm Store

Junction, St. Elizabeth
965-8417

KB's Farm Store

Seaview District
Southfield, St. Elizabeth
433-0550

L&M Farm Store

Main Street, Santa Cruz
St. Elizabeth
966-9756

Leed's Farm Store

Leeds, Santa Cruz
St. Elizabeth
776-9017

M & K Farm Supplies

Nain, St. Elizabeth
963-6026

M & S Farm Supplies

11 North Street, Black River
326-2309

Nelson's Enterprise

Farm Supplies
Coke Drive, Santa Cruz
St. Elizabeth
966-9085

Oswald McLean Farm Store

Flagaman, St. Elizabeth
965-0484

Outta Road Farm Store

Pepper District, St. Elizabeth
452-0464

PJ's Distributors

Main Street, Santa Cruz
St. Elizabeth
966-2386

September Farm Store

5 Great George Street
Savanna-La-Mar, Westmoreland
292-2577

Sito Nature Farm and Variety Store

Links Plaza, Braes River
St. Elizabeth
459-8713

Sito Nature Farm and Variety Store

Links Plaza, Braes River
St. Elizabeth
459-8713

Spencers Farm Store

Red Bank P.O., St. Elizabeth
404-7915

Spring Field Farm Store

Springfield, St. Elizabeth
883-3724

Stop and Shop Mini Mart

Goshen District, St. Elizabeth
966-0827

Dealer Listing continued

Sunlight Agricultural Supplies

Junction, St. Elizabeth
399-3759

Sunnymount Farm Store

Leif Mountain
Southfield, St. Elizabeth
842-9662

T&C Farm Store

Main Street, Lacovia
St. Elizabeth
862-4517

Top Grower Agro-Supplies

34 High Street
Black River
St. Elizabeth
374-4333

White Hall Harberdashery

White Hall
St. Elizabeth
988-7281

Williamsfield Farm Store

Williamsfield, St. Elizabeth
290-4774

You Ask for It Farmstore

Main Street, New Market
St. Elizabeth
361-0147

ST. JAMES

Born & Grow Community Wholesale

2 Roosevelt Ave, Montego Bay, St. James
489-1334

Chin's Harberdashery

5 Lawrence Lane, Montego Bay
St. James
367-6855

Howverne Enterprises Limited

Anchoy, St. James
912-3036

Jacinth Nelson Farm Store

Cambridge, St. James
396-9724

Li Ka Lap - Happy Garden Farm Supplies

50 Railway Lane, Montego Bay
St. James
405-0028

The Farm Hut

7 Fustic Road, Montego Bay
St. James
940-4148

Wanbo Agro Farm Supplies Limited

8 Fustic Road, Montego Bay
St. James
952-1739

Wards Mini Mart

Wiltshire, St. James
956-4207

West Gate Farm Supplies

13 Fustic Road, Montego Bay
St. James
964-3038

ST. MARY

Ann's Farm Store

2 River's Lane, Port Maria
St. Mary
894-3916

C&W Hardware

Eden Park, St. Mary
441-0205

DPS Farm and Garden Supplies

8 Stenetts Street
Port Maria, St. Mary
994-2411

Farmville Home & Garden

Rio Nuevo Plaza
Tower Isle, St. Mary
975-4089

Gayle Farm Supplies

Gayle, St. Mary
925-9123

Geen Plunkett Farm Store

Albion Mountain, St. Mary
789-1131

Golden Gem

Mary Mount, St. Mary
393-7752

Hugh Radway Farm Store

Charleston Shoppers
Retreat, St. Mary
296-7188

Jackie's Variety Farm Store

Trinity, Port Maria
St. Mary
280-2749

Jeffrey Town Variety & Farm Store

Jeffrey Town, St. Mary
384-9170 / 327-7968

Karon Andrews Farm Store

Islington, St. Mary
870-2252

Schlilm Chicks & Feed

Highgate, St. Mary
456-9622

ST. THOMAS**Frontline Liquid & Feeds**

11 South Street
Morant Bay, St. Thomas
982-1392

Hugo's Farm & Garden Supplies

10 Nutts River Road
Leith Hall, St. Thomas
982-0147

Phill's Feed Store

Seaforth, St. Thomas
896-5601

St. Thomas Farm Store

Main Street, Morant Bay
St. Thomas
734-1109

Superior Farm & Garden Centre

3 Miramar Drive, Morant Bay
St. Thomas
734-7390

TRELAWNY**Clark's Town Variety Store**

Clark's Town, Trelawny
463-4646

Falmouth Farm Store

18 Falmouth Street
Falmouth, Trelawny
395-5522

Lorimers Farm Supplies

Lorimers, Trelawny
372-4345

NuGreen Farm Supplies

Albert Town, Trelawny
610-0448

Walker's Grocery

Dumfries, Trelawny
912-8447

Wirefence Farm Store

Wirefence Road
Wire Fence District
Trelawny
486-5997

Dealer Listing continued

WESTMORELAND

4 D's Chemical

115 Great George's Street
Savanna-la-mar, Westmoreland
377-1366

Big M Hardware

59 Great George's Street
Savanna-la-mar, Westmoreland
955-2940

Chue's Farmstore

Seaford Town District
Leonard's P.O., Westmoreland
355-7386; 865-1149

Consolidated Agri Supplies

71 Great George's Street
Savanna-la-mar, Westmoreland
831-8871

Leamington Farm Store

Leamington, Westmoreland
376-9624

Palmers Hardware

Main Street White House
Westmoreland
963-5197

Source One Trading

2 Queen Street
Savanna-la-mar, Westmoreland
955-2485



FARM SUPPLIES



You can produce your own homegrown, Hi-Pro chicken for the same price per pound as retail imported chicken neck and back!



(Imported Chicken Meat)

References & Acknowledgement

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We hope you find this publication clear, concise and entirely beneficial.



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— WITH **Hi-Pro** —

GROW

— WITH **Hi-Pro** —

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