

# Poultry Equipment Used On Broiler Farms

# Objectives

1. Students will be able to identify the equipment used on a modern broiler farm.
2. Students will be able to understand the use of the equipment on a modern broiler farm.

- The following pictures were made on the Seabolt Farm in White County, Georgia.
- The pictures shown are with the first flock of chickens grown in the houses.
- The photos were made on June 26, 2002.

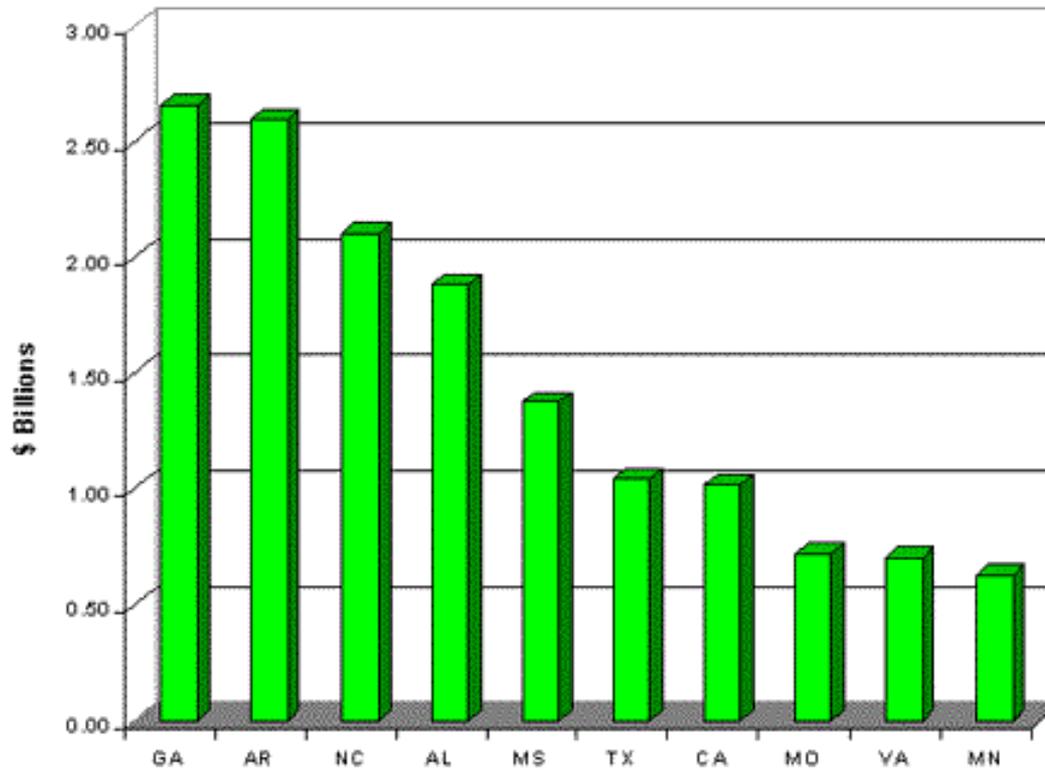
# Georgia leads the nation in the production of broiler chickens



# State Rank -- All Poultry

## 1997

(Farm Level)



Prepared by: Georgia Poultry Federation  
Source: Georgia Department of Agriculture  
Georgia Agricultural Statistics Service

Broiler houses & equipment are constantly being updated and improved. A poultry house may be used for 25 years or more, however.



This new broiler house is 40 feet wide and 500 feet long. It will have 22,000 broiler chickens stocked during each flock.



Most farms have two or more houses for growing broiler chickens. Each flock of chickens is grown for about eight & one half weeks.



# Cool cell pad for cooling



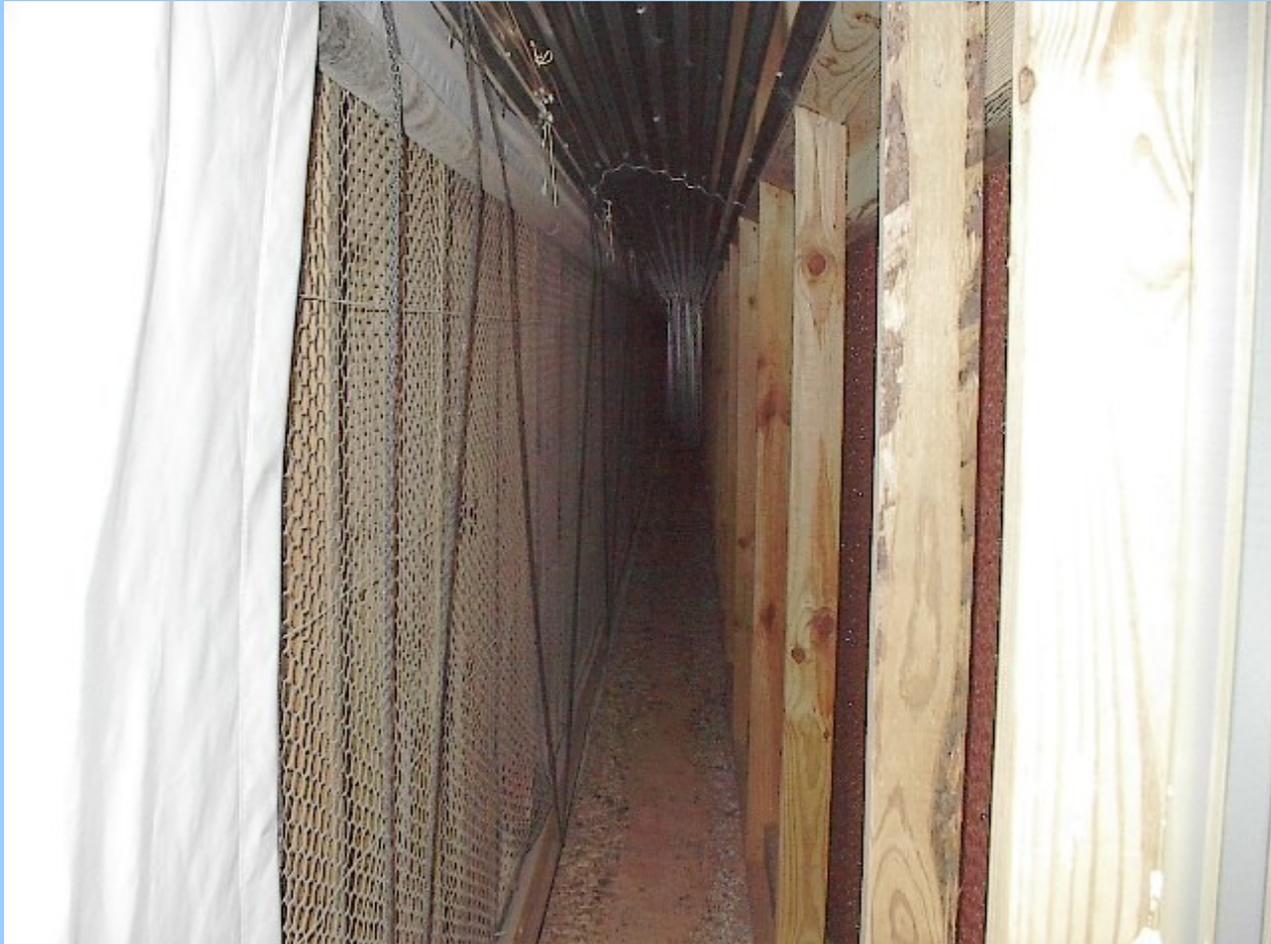
The cool cell has water flowing through it to create the evaporative style of cooling.



# Recycle pump for cool cell system



Two layers of cool cell pads with two feet of space between



The funnel shape allows fans to move greater amounts of air



This sensor replaces the old style thermometer and thermostat



# Fans in operation with the tunnel ventilation system



This propane gas furnace is part of the heating system for this house. Five of these heaters are in each house.



These radiant brooders are used with the gas furnaces to warm the half of the house that is heated during the first two weeks.



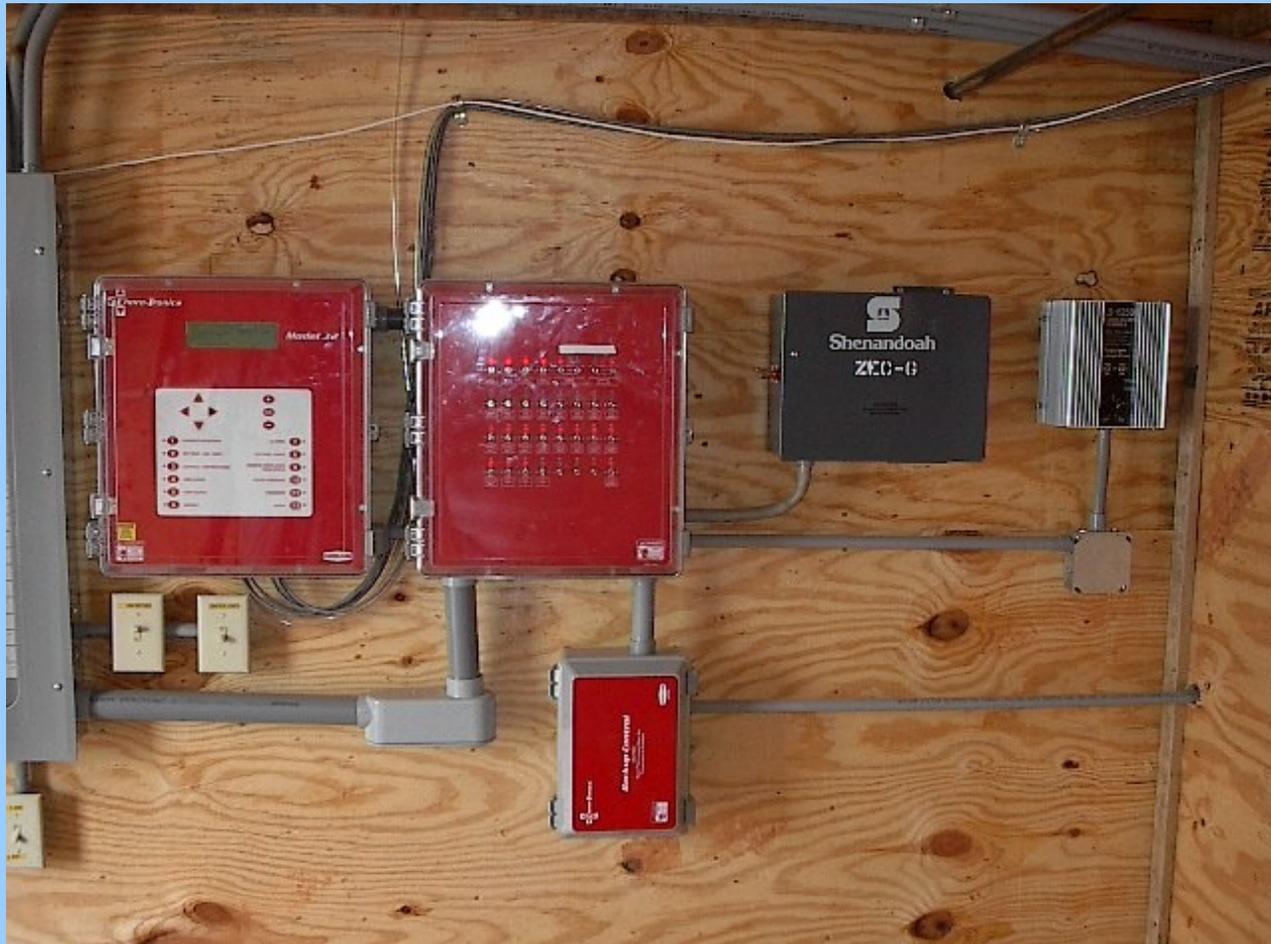
Propane gas is stored in 1000 gallon tanks at each house.



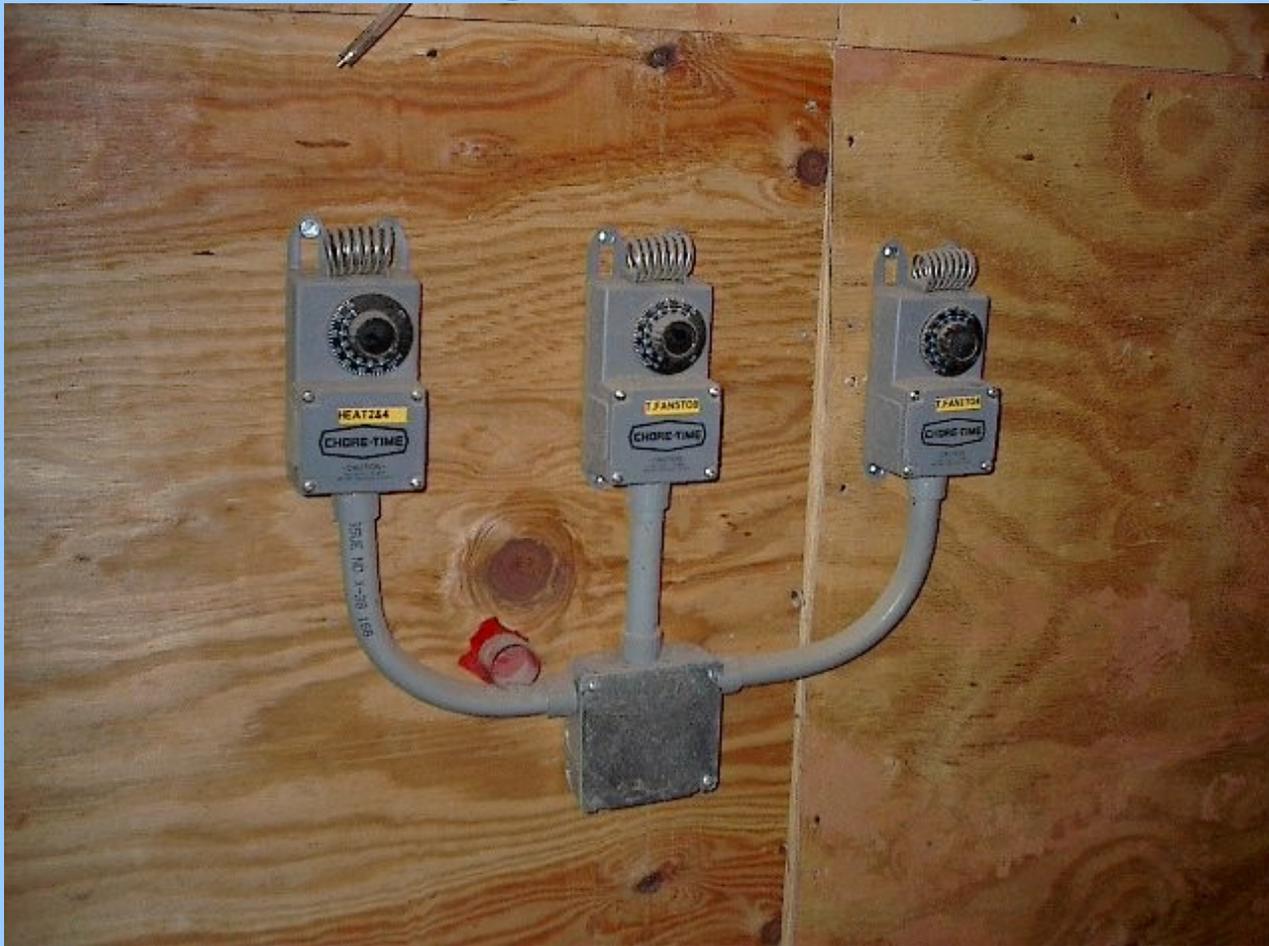
The half-house curtain is lowered during the first two weeks so that only half of the house is heated.



Central control panel that controls every system in the house.



These over-ride devices allow the grower to manually control the heating and cooling.



This alarm system sounds a siren when anything goes wrong inside the house.



Two feed bins are required by most poultry companies to store feed for the chickens.



These feed bins have see-thru covers at the bottom to monitor the flow of feed to the auger.



The feed hopper in the house holds the feed before it goes out through the auger & into the feed pans.



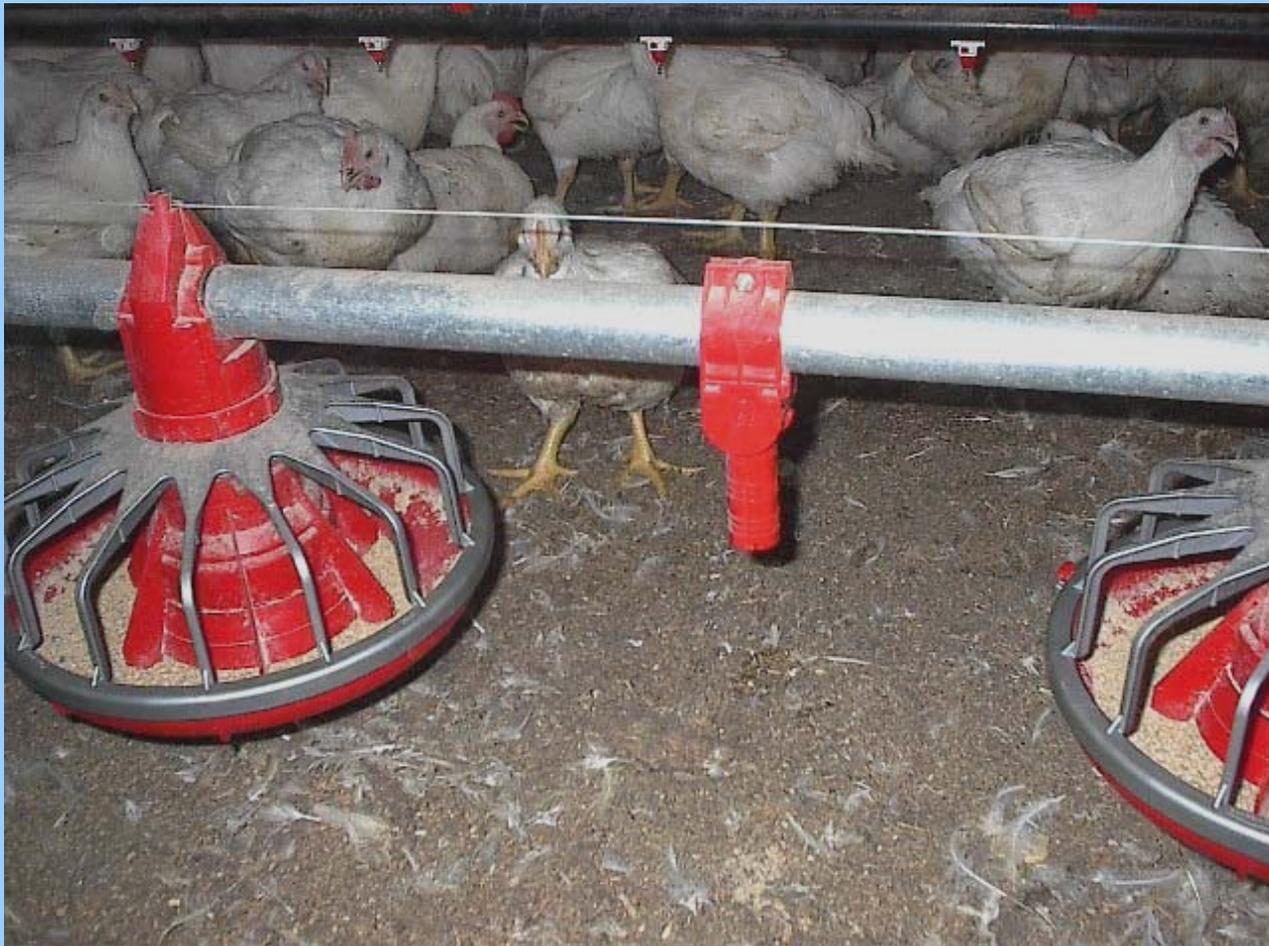
Feed goes through the auger lines & drops into each feed pan for the chickens to eat.



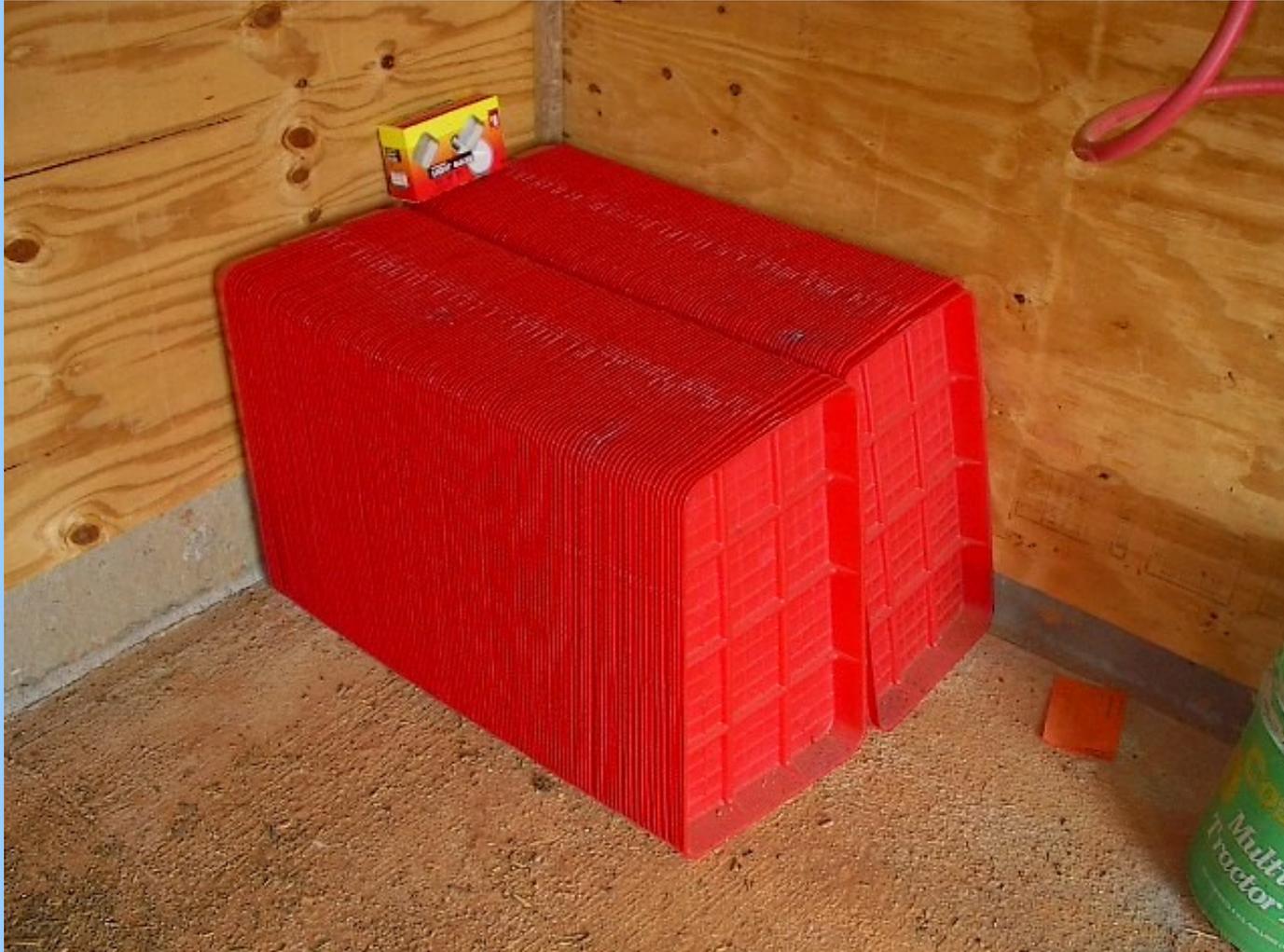
The motor on the end of the feeder line turns the auger inside to move the feed down the line.



The drop-tube is turned down during the first week of growth to allow feed to fall into a movable tray to be more accessible to the baby chicks.



These feed trays have been taken up, washed, stacked & stored after being used under the drop tubes of the feeder.



The drop-tubes are turned to the side to close them when not in use.



Feeder lines are raised weekly with a winch and cable system. This is done to maintain correct feed pan height as chickens grow.



Nipple-valve drinkers are used to provide a constant supply of fresh water. These drinkers are also raised weekly as chickens grow.



This control valve for the drinkers allows the grower to adjust pressure as the chicks grow and to flush the entire drinker line if needed.



This medication system allows for medicines to be administered through the water lines.



Lighting is provided by incandescent lights with dimmer switches.



A row of florescent lights also along the center of the ceiling helps to provide proper lighting.



All of the hanging equipment is raised or lowered easily with winches and pulleys.



This small computer box allows the poultry company's service person to connect a portable computer and check conditions (temperature, static pressure, etc.) for every day of the past week.



A daily mortality chart is the record of livability of the flock & provides important information to the grower and the poultry company.

 **WAYNE FARMS - MORTALITY AND FEED DELIVERIES**  
 HOT LINE # 1-800-878-6748

Name Seabell Farm Date Started 5/10/08  
 No. Birds 30,700 House No. #2 Flock No. 592-2570  
591-240

WEEK	DAILY MORTALITY CHART								FEED DELIVERIES					
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	Wkly Total	Total To Date	Gain	Tip	Amount	Time Lnk To Date
1	25	12	16	20	24	16	11	111						
2	16	25	9	10	21	9	9	99	210					
3	11	15	11	12	18	11	6	84	294					
4	9	6	8	6	5	6	7	47	341					
5	15	9	5	10	6	10	8	63	404					
6	18	10	18	17	17	31	31	142	546					
7	32	20	30	27	23	23								
8														
9														
10														

Date Sold \_\_\_\_\_ Age \_\_\_\_\_ Wt. \_\_\_\_\_ Co. \_\_\_\_\_  
 Feed Conv. \_\_\_\_\_ % Cond. \_\_\_\_\_ Group \_\_\_\_\_  
 No. of \_\_\_\_\_ % Livability \_\_\_\_\_

Note: If more than one house, keep feed on one chart.

A stand-by generator provides emergency power to all houses if there is a power outage.



This stand-by generating system is equipped to automatically start in case of a power outage.



Most poultry companies have restrictions for entry into the poultry houses to help prevent the spread of diseases.



A loader is used to clean out the litter after growing the chickens. The litter is spread on pastures as a source of fertilizer. In some cases, poultry litter is mixed with grain & fed to beef cattle.



Because of the high amount of automated equipment used on a broiler farm, labor is greatly reduced and the grower has more time to do other things.



# Summary

We have identified equipment for the following:

cooling

feeding

lighting

medication

house monitoring

heating

watering

ventilation

alarms

**The End**