

KEYS

TO

PROFITABLE PRODUCTION

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KEYS TO PROFITABLE BROILER PRODUCTION

Extension Poultry Specialists
The Texas A&M University System

Texas ranks seventh among the states with an estimated 6 percent of the nearly 3 billion broilers produced annually in the United States. The broiler industry has been integrated and industrialized with an outlook for continued growth as modest priced broiler meat gains a larger share of the food dollar.

Broiler production is being concentrated into larger units. Most broilers are raised on contract with integrated firms. The broiler industry is an intensified type of agriculture brought about by the application of production, processing and marketing knowledge.

One broiler producer can care for 60,000 broilers in houses equipped with mechanically-operated feeders, waterers and side-wall curtains. You may need supplemental help during house cleaning, emergencies and relief periods. Broiler contracts usually provide incentives for good broiler health, growth and feed conversion.

Broiler production depends upon good environment through adequate housing. Floor pads 1 to 2 feet above the surrounding area with graded

drainage protect against surface water. A house width of 32 to 40 feet permits summer breezes through the house. Eight-foot side walls with 5- or 6-foot curtains provide ventilation. Proper use of fan ventilation will improve house environment and broiler performance. Insulation under the roof protects against radiant heat in summer and heat loss during the winter. (See *Poultry House Plan 509*, Texas Agricultural Extension Service.)

A health program is fundamental to successful broiler production. It includes "all-in, all-out" quarantine and isolation of each flock. Limit each flock to one age and from one source. Do not permit other poultry on the premise. The above practices increase the chances of maintaining a healthy flock throughout the growing period.

KEYS

1. Start with chicks from pullorum-typhoid clean and MG-tested breeder flocks of desired genetic ability. Successful integrated broiler firms have an



Figure 1. A unit of East Texas broiler houses

effective program for producing clean hatching eggs, and maintaining clean hatchery and chick delivery facilities.

2. Between each flock of broilers, clean the house completely — ceiling, rafters, walls, floor and surrounding premise. Also repair, scrub and disinfect all equipment — waterers, feeders and brooders.

When built-up litter is used, remove all caked or wet litter and replace it with fresh clean litter before chicks arrive. In spring or early summer, thoroughly clean out broiler houses and remove all litter. This practice helps reduce heat stress in hot weather by minimizing heat production from microbial action in built-up litter.

3. After each clean out, cover floor with clean litter at least 3 inches deep. Wood shavings, processed pine bark, cane litter and rice hulls are suitable litter materials. Avoid moldy or musty litter to prevent aspergillosis (mold growth in the bird's respiratory tract).

4. Provide 1 square foot of floor space for each broiler started March through August. Crowding can be hazardous in extreme summer heat. From September to February, 0.8 square foot of floor space per broiler may be used.

5. Brooders should have enough heating capacity to maintain comfortable hover and room temperatures in the coldest weather. Manufacturer's instructions and integrator experience determine the number of birds to place under each hover.

Place guard rings around the feed track in warm weather to prevent chicks from straying from the heat source. In winter months, encircle brooders with brooder guards, but not closer than 24 to 30 inches from the edge of the brooder. Keep the guard up 3 to 5 days depending on the weather.

6. Before the chicks arrive, have the brooder house ready with brooders operating and regulated to the manufacturer's recommended temperature. Regulate each brooder's thermostat range to allow a temperature spread of only 5 degrees F. Fill waterers and feeders and set up guard rings.

Distribute chicks around each brooder. If undisturbed, chicks will settle quickly and be off to a good start. Lower the brooder temperature about 2 degrees every 3 days until it reaches 70 degrees and the chicks are well feathered. Observe chick behavior to determine adjustments needed for comfort. *See figure 2.*

7. Feed trough recommendations:

For a house 32- to 36-foot wide, provide two lines of automatic auger (suspended round-pan)

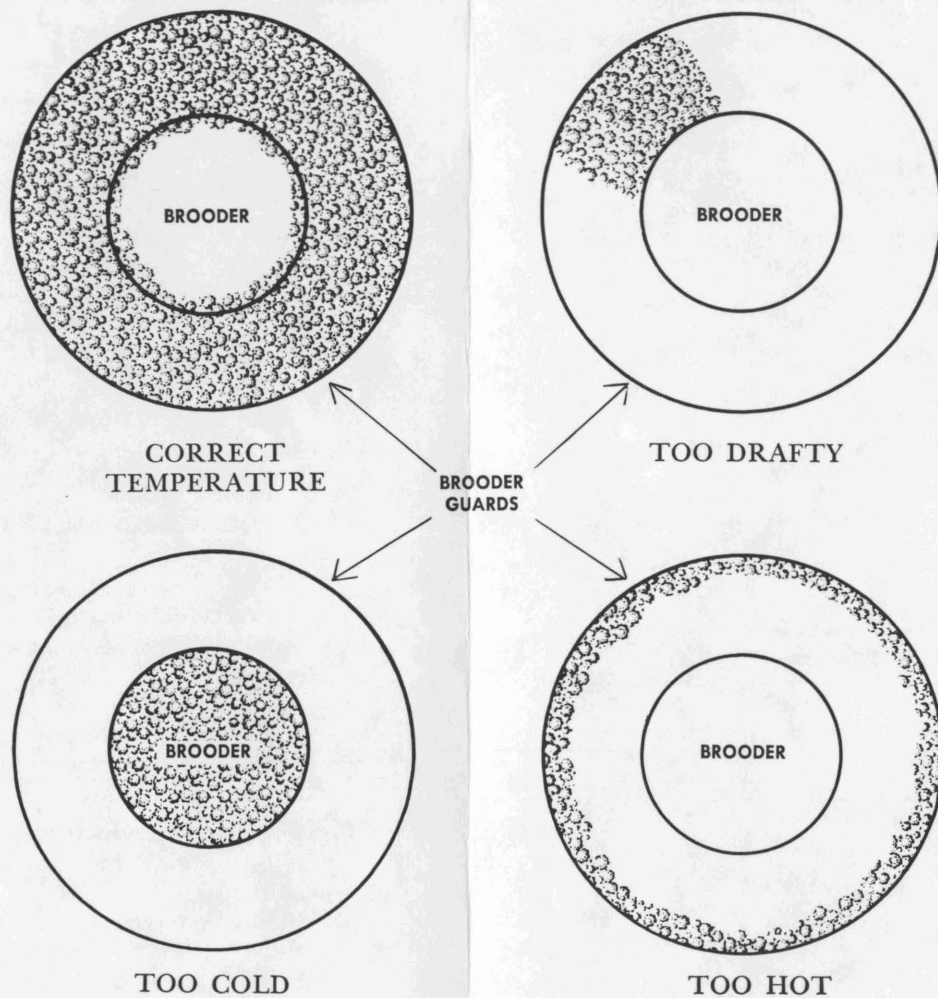


Figure 2. These diagrams show how to use your chicks as guides for obtaining correct brooding temperatures. Shaded areas represent chicks.

feeders with 4 pans per 10-foot section. In houses over 36-feet wide, provide two lines with 3 pans per 10-foot section, and one line with 4 pans per 10-foot section.

If you use mechanical chain feeders, install two lines of mechanical chain troughs in houses 32- to 36-feet wide, and four lines in houses 36- to 40-feet wide.

Mount the feeders on winches so you can raise them and maintain proper feeding height during the growing period. Keep the trough lip height even with the backs of the birds. Winches also make it possible to raise feeders to the ceiling

before birds are caught and loaded for market. This minimizes bruising of birds and damage to equipment.

Follow manufacturer's instructions on operation and maintenance of automatic feeders to insure top performance and longevity of the equipment.

8. Water trough recommendations:

For the first 10 days of brooding, supply water in clean, 1-gallon, wide-based fountains with one per 100 chicks. Move the fountains gradually toward mechanical water troughs and remove them as the chicks learn to use the troughs. Use five 8-foot mechanical waterers per 1,000 broilers. Distribute the watering equipment evenly over the

house. Keep the water trough lip adjusted to shoulder height of the growing broilers to help prevent water spillage and keep out debris.

9. Poultry house ventilation requires constant attention. During hot weather use available breeze to cool the birds. In cooler weather adjust curtain openings to allow enough air movement to keep the litter dry and avoid excessive drafts which chill the birds. During quick weather changes, adjust the ventilation curtains, panels and windows promptly. If houses are mechanically ventilated, learn to operate fans for maximum effect.

An adequate amount of loose, dry litter can effectively minimize the incidence of breast blisters. This is a special problem in colder weather when you reduce ventilation to maintain warm house temperatures. Supplemental heat may be necessary during colder weather to provide the warm air necessary to carry the surplus water from the litter out of the house through well-managed ventilation practices.

10. Provide artificial night lights from sundown to 4 a.m. throughout the broiler growing period. The abrupt 4 a.m. cut-off of the lights will condition the broilers so they will not stampede in a power failure. Provide enough light for 1 foot-candle at floor level throughout the house. Use clean, 25- to 40-watt bulbs with shallow dome reflectors 7 feet above the floor and 14 feet apart.

11. Remove all equipment from the area before catching broilers for marketing. Handle each bird with care to prevent bruises. Rough handling during the catching operation can reduce or wipe out profits of the entire flock due to downgrading on the processing line. When this occurs, everyone loses — the grower, processor and consumer.

12. Good management requires factual information about each flock's performance. Establish a system for determining your fixed investment and depreciation schedule. Ask your county Extension agent for Extension form D-794, *Continuous Depreciation Schedule*, which can help you determine and maintain information on the actual fixed costs of your broiler operation.

Keep a record of variable or "out-of-pocket" expenses for each brood of broilers and recap these on a flock and annual basis. Study the information provided by the integrator on each flock of broilers when contract payments are received. This provides information on opportunities for estimating the grow-out earnings on future flocks.

The Contract Broiler Result Summary on page 4 provides an outline for recapping and analyzing the performance factors related to the earnings of each flock.

Lot number _____

House number _____

CONTRACT BROILER RESULT SUMMARY

Costs (variable)	Total Value	Per Pound Sold
Litter	\$ _____	\$ _____
Fuel	\$ _____	\$ _____
Electricity	\$ _____	\$ _____
Hired labor	\$ _____	\$ _____
Repairs and maintenance	\$ _____	\$ _____
Other	\$ _____	\$ _____
Other	\$ _____	\$ _____
Total variable costs	\$ _____	\$ _____
Costs (fixed)		
Depreciation on buildings and equipment	\$ _____	\$ _____
Taxes	\$ _____	\$ _____
Insurance	\$ _____	\$ _____
Other	\$ _____	\$ _____
Total fixed costs	\$ _____	\$ _____
Total all costs	\$ _____	\$ _____
Income – contract payment.....	\$ _____	\$ _____
Earnings – for grower and invested capital	\$ _____	\$ _____

Statistical

Chicks hatched – date _____ head delivered _____

Broilers marketed – date _____ head _____ net weight _____

Age of broilers marketed _____ days livability _____ % Avg. wt. _____

Feed used: starter _____ lb. grower _____ lb. total _____ lb.

Pounds of feed to produce a pound of broiler _____

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