

# KEYS

TO

# PROFITABLE PRODUCTION

L-963

## KEYS TO PROFITABLE COMMERCIAL TURKEY PRODUCTION

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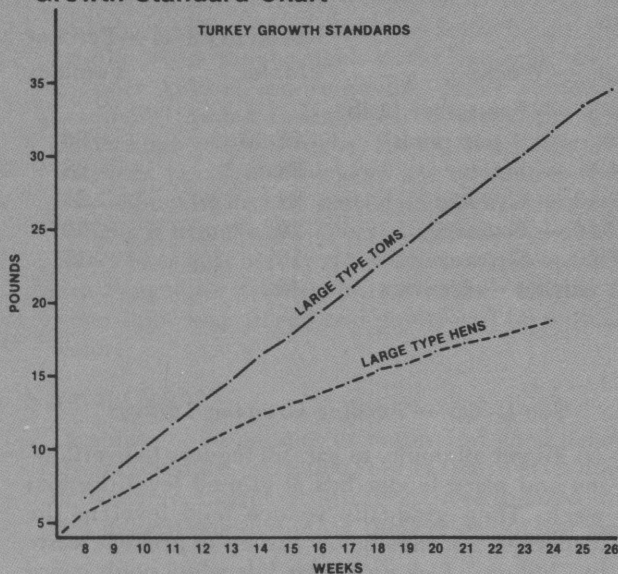
In 1977, Texas ranked seventh among the states with an estimated 8.6 million (6.3 percent) of the 135.6 million turkeys produced in the United States. Turkey production has concentrated into large flocks and most turkey producers have a growing contract with an integrated turkey firm. A good turkey producer can raise a flock of 40,000 turkeys with the use of mechanical feeding and watering equipment. He will need supplemental help for cleaning the houses,

placing birds on the range, vaccination, debeaking, emergencies and relief.

After 8 weeks in a brooder house, most Texas turkeys are grown on range. However, there is increased interest in growing turkeys through the winter in confinement housing.

The genetics and nutrition of turkeys enable 14-pound hens to be marketed at 17 weeks of age on 40 pounds of feed. Twenty-seven pound toms are marketed at 21 weeks of age on 81 pounds of feed. Good operations will match or exceed these performance levels.

Growth Standard Chart



Adapted: From Turkey World, January 1978.

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### Keys

- Fundamental to a successful health program are "all in-all out" quarantine and isolation of the flock. Keep each flock of one age and from one source. Do not permit other poultry on the premises. Health problems occur when basic management, sanitation and disease control procedures are disregarded.
- Start with sexed poults which are free from pullorum-typhoid and *Mycoplasma gallisepticum* (Mg) and which come from breeder flocks of proven genetic ability from a hatchery that provides healthy poults and good service. Raise the sexed poults separately. For a fee, the hatchery will de-snood the males for protection against erysipelas disease.
- Completely clean the brooder house prior to each new group of poults. Scrub, repair and disinfect all equipment — brooders, waterers, feeders and range facilities. Remove all rubbish from house, such as sacks, paper, buckets and tools.

- Use a good rodent control program, both inside and outside building.
- Apply an approved insecticide to building interiors where parasites have been a problem.
- Cover the brooder house floor with clean, fresh litter at least 3 inches deep. Wood shavings and rice hulls are commonly used. Avoid moldy or musty litter to prevent aspergillosis (mold growth in the respiratory tract). If diesel oil has been sprayed on the brooder house floor, be sure all fumes have evaporated before litter is added.

Cover litter inside the brooder with rough surfaced paper such as crinkled kraft paper for firm footing and to prevent young poults from consuming litter before they develop good eating habits. Remove the litter cover as soon as the poults are on feed, at least by the end of the first week. This prevents moisture accumulation which, along with the heat from the brooder, provides a favorable environment for mold growth. If rough paper is not used, the litter may be packed or rolled around the brooder, making a relatively firm surface for the poults. *Never use newspaper.*

- Provide 1½ square feet of floor space per male poult and 1 square foot per female in the brooder house to 8 weeks of age. If turkeys are to be grown in confinement housing, provide 3 square feet per turkey hen and 5 square feet per tom. This will be 1 square foot of floor space for each 5 pounds of turkey marketed.
- Gas, oil or electric brooders must have sufficient heating capacity to maintain comfortable temperature in the coldest weather. Start 300 or less poults per hover. Allow 13 square inches of space per poult under hover-type brooders. Solid guard rings placed 4 feet from the hover keep poults from straying. After a week, they can be removed or enlarged and retained for a second week in extremely cold weather. When the minimum room temperature is above 70° F., use wire guard rings.
- Before the poults arrive, prepare the brooder house. Light brooders and regulate to temperature recommended by the manufacturer. Check and regulate the thermostat to operate within a range of 5° F. or less. Reduce the temperature 2 degrees every 3 days until 70° F. is reached and poults are well feathered.
- Bulk bins and mechanical feeders provide substantial savings in labor. Operate according to manufacturer's instructions. Provide enough bulk storage space to hold feed needed by the flock. Drain and clean each bulk tank every 2 weeks. Brush inside walls and clean out caked feed stuck to sides or corners.

- Fill feeders and waterers. Distribute poults promptly around each brooder. If left undisturbed, poults quickly settle and are off to a good start. Avoid loud talking which distracts poults during the first few days. Poults are attracted to any sound and may pile, causing some to smother. Observe poults' behavior to determine adjustments needed for their comfort. Poults should be placed on feed as soon as possible after hatching.
- Feed trough recommendations (two-thirds as much with tube feeders):

Age	Feed space per bird (inches)	Depth of feeder (inches)
Through 2 weeks	1	2
3 through 6 weeks	1	4
8 weeks to market	1	5 or more
12 weeks to market	1	5 or more

- Keep turkeys on full feed from the first day to market. Feed complete rations which meet nutrient needs of fast growing turkeys.

If males and females have not been grown apart, separate hens and toms by 14 weeks of age to permit feeding rations best suited to their differing growth rates.

The following table shows the decline in protein requirements as the turkeys grow:

#### PROTEIN LEVELS OF FEED FOR MARKET TURKEYS

Age — Weeks	Protein Level—Percent	
	Males	Females
0-3 — Prestarter (2 lb. per poult)	28-30	30
4-8 — Starter	28	28
9-12 — Grower	24	24
13-16 — Grower	20	20
17-20 — Grower	18	15
21-market — Grower	15	

See L-595 — *Feeding Growing Turkeys*

To get all poults to eat, fill feeders to overflowing and place feeder lids at ground level the first week. Then gradually reduce feed level in the feeders to 2 inches below the lip to prevent waste by "billings." Pick up feeder lids when poult guard is removed. As the birds grow, elevate feeder lip to the turkeys' shoulder height. This prevents feed waste and keeps litter out. Keep feed troughs level and be sure feeders have at least 1 inch of lip to prevent the turkeys from billing feed out of troughs. Feed represents about two-thirds of the



cost of producing turkeys and cannot be wasted if profits are to be made. A commonly used figure to evaluate good management is "pounds of feed per pound of gain." During summer weather, place feeders and waterers in shade to encourage consumption. Install range sprinkler system in areas of low humidity.

- On range provide 1 acre for each 250-400 turkeys. This will vary with terrain, soil type and rainfall. Turkey range requires natural drainage and a loose, sandy-type soil. Where there is insufficient natural shade, provide 3 square feet per turkey. Move range equipment as often as needed. Confine turkeys to the range with a portable poultry fence hung outside the posts. This will also protect against predators.

Use range feeders with 300- to 500-pound capacity. Number each feeder for identity. Let one-fourth of the feeders run completely empty each week to clean up the fines which sift out.

- Water trough recommendations:

Age	Water space per bird (inches)
Through 2 weeks	1/3
3 through 6 weeks	2/3
8 weeks to market	1

For the first 10 days, supply water in 1 gallon, wide-base fountains; provide two fountains per 100 poults. Add mechanical water troughs when brooder guards are removed. Move fountains gradually toward troughs and remove them as poults learn to use troughs. Five 8-foot mechanical waterers per 1,000 turkeys are recommended. Day-old poults may be started on mechanical water troughs if troughs are lowered and leveled so the poults have easy access to the water. However, this is a dangerous practice during winter months as water lines may freeze and poults will be without water.

### Keep it Clean!

- Livability of 94 percent or better and good health are required for profitable results. Raise each flock in complete isolation to avoid exposure to infections and infestations that other turkeys or poultry may

carry. External parasites such as blue bugs, chiggers and lice cause severe loss to the turkey crop each year. Early flocks ranged on heavy-type soils must be particularly cautious of chigger infestations. Examine some birds each week to determine whether they are free of parasites. If external parasites are found, treat the bird and premises as outlined in MP-691 — *Texas Guide for Controlling External Parasites of Livestock and Poultry* and B-1088 — *External Parasites of Poultry*.

A sudden decline in feed consumption indicates the need for a quick check of the flock's health. Get a qualified diagnosis. Debeaking helps control feather picking and cannibalism. Remove and kill obvious culls. Use an incinerator for dead birds.

- Turkey house ventilation requires constant attention. During hot weather use any breeze to facilitate cooling the turkeys. During cooler weather, adjust wall openings to allow enough air movement to keep litter dry and at the same time avoid excessive drafts which will chill young poults. During quick weather changes, promptly make corrective adjustments of ventilation curtains, panels and windows.
- Provide turkey poults 14 hours of light a day during the brooding period. Supplement daylight with electric lights as needed. Continue this light schedule to market time on turkeys grown in a confinement house. Use 60-watt bulbs spaced 14 feet apart 7 feet above the floor. During the first 2 weeks a 150-watt bulb placed over each brooder will help prevent "starve-outs" and get poults started with good eating and drinking habits.
- When catching and loading turkeys for processing, handle each bird with care to prevent bruises. Rough handling can cause downgrading in processing which can reduce or eliminate profits. When this occurs everyone loses — the grower, processor and consumer.

- Problem Areas:

Be sure there are no areas of concentrated sunlight. Poults may be attracted to the bright area and piling or cannibalism may begin.

Sickly looking birds should be removed. Dead birds should be removed and disposed of daily, preferably by incineration.

Wet spots and caked litter around feeders and waterers should be removed as they occur and replaced with clean, dry litter.

• Weekly check list:

	Weeks			
	0	1	2	3
Temperature	95	90	85	80
Feed Trough level	Full	2/3 full	1/2 full	1/3 full
Egg flats	Use for first 5 days			
Feeder			Add more feeders	Raise to level of bird's back
Water	Use founts		Begin removing founts	Use automatic waterer
Miscellaneous Crinkle paper	Remove at 3-5 days			
Brooder guard		Remove		
Lights	Bright lights	Bright lights	Bright lights	Dim lights (10-watt bulb)
Debeaking				Debeak at 3-5 weeks

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