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Ben Warmeli

FACT SHEET

L-963

KEYS TO PROFITABLE TURKEY PRODUCTION

In 1970, Texas ranked fourth among the states with an estimated 8 million (7 percent) of the 115 million turkeys produced in the United States. Turkey production has concentrated into large flocks with about 95 percent of Texas turkeys being produced in flocks of 5,000 head or more. Many turkey producers have a growing contract with integrated turkey firms. A good turkey man 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 house, 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 months which necessitates confinement to protect against the winter weather. The genetics and nutrition of turkeys enable 14-pound hens to be marketed at 19 weeks of age on 45 pounds of feed. Twenty-seven pound toms are marketed at 24 weeks of age on 86 pounds of feed. Good operations will match or exceed these performance levels.

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 premise.

KEYS

- Start with sexed poults from pullorum-typhoid clean and PPLO tested breeder flocks of desired 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 brood of poults. Scrub, repair and disinfect all equipment – brooders, waterers, feeders and range facilities.

- 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).

  Cover the litter inside the brooder with rough surfaced paper such as crinkled kraft paper for firm footing and to prevent young poults from eating enough litter to clog their digestive tracts 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 combines with the heat from the brooder to provide 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.

- 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.

  On range provide 1 acre for each 100 or more 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 of range shelter shade. Move the range equipment as often as needed. Confine turkeys to the range with a portable

Prepared by Extension poultry specialists, Texas A&M University.

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poultry fence hung outside the posts. This will also protect against predators.

- 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 the poults from straying the first 4 days. Move the guard rings back 3 feet for 3 more days before removing them entirely. When the minimum room temperature is above 70 degrees, 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 degrees F. or less. Reduce the temperature 2 degrees every 3 days until 70 degrees is reached and poults are well feathered.

Fill the feeders and waterers. Distribute the 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 the poults' behavior to determine adjustments needed for their comfort.

- Bulk bins and mechanical feeders provide substantial savings in labor. Operate according to manufacturer's instructions.

- 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 that will be most productive in meeting the nutrient needs of the fast growing turkey during its advancing growth stages.

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

The following table shows the decline in percent protein 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 the feeders to overflowing the first week. Then reduce the feed level in the feeders to 2 inches below the lip to prevent waste by "billing." As the birds grow, elevate the feeder lip to the turkeys' shoulder height. This prevents feed waste and keeps the litter out. Keep the feed troughs level. Be sure the feeder has at least 1 inch of lip to deflect the billed.

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 feed and water consumption throughout the day.

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 that sift out.

Provide enough bulk storage space to hold the feed needed by the flock. Completely drain and clean each bulk tank every 2 weeks. Brush the inside walls and clean out caked feed stuck to sides or corners.

- 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 at the rate of two fountains per 100 poults. Add the mechanical

water troughs when the brooder guards are removed. Move the fountains gradually toward the troughs and remove them as the poults learn to use the troughs. Five 8-foot mechanical waterers per 1,000 turkeys are recommended.

Day old poults may be started on the mechanical water troughs if the troughs are lowered and leveled so the poults have easy access to the water.

KEEP IT CLEAN!

- Livability 94 percent or better and good health are required for good 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. Examine the birds each week to determine whether they are free of parasites. If external parasites are found, treat the birds and premises as outlined in MP-691, *Texas Guide for Controlling External Parasites of Livestock and Poultry* and B-1088, *External Parasites of Poultry*.

If daily records show a decline in feed consumption, this indicates the need for a quick check of the birds' health for corrective treatment. Get a qualified diagnosis. Debeaking helps control feather picking and cannibalism. Remove and kill obvious culls. Use an incinerator or disposal pit 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 allowing enough air movement to keep litter dry and at the same time avoid excessive drafts which will chill the young poults. During quick weather changes make corrective adjustments of the ventilation curtains, panels and windows promptly.

- 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 brightly light the feeding area helping prevent "starve-outs" and getting poults started with good eating and drinking habits.

- When catching and loading turkeys for the trip to the processing plant, handle each bird with care to prevent bruises. Rough handling on the last day can cause downgrading on the processing line which can reduce or wipe out profit of the entire flock. When this occurs everyone loses—the grower, processor and consumer.

- Good management requires factual information about the performance of each flock. Ask your county agent for a copy of form D-794, *Continuous Depreciation Schedule*. Complete it and keep it current. This will be valuable in determining fixed costs per pound of live turkey and enables one to calculate more realistically the chances for profit in the turkey venture. The Turkey Production Result Summary provides an outline for recapping and analyzing the performance factors related to earnings.

Lot number_____

TURKEY PRODUCTION RESULT SUMMARY

Costs (variable)		Total Value	Per Pound Sold
Poults_____ Head_____ (include extras)		$_____	$_____
Litter		$_____	$_____
Fuel		$_____	$_____
Medication		$_____	$_____
Insurance on turkeys		$_____	$_____
Hired labor		$_____	$_____
Feed:			
Prestarter _____cwt	$_____		
Starter _____cwt	$_____		
Grower _____cwt	$_____		
_____cwt	$_____		
Total _____cwt	$_____	$_____	$_____
Costs (fixed)			
Maintenance and insurance		$_____	$_____
Depreciation		$_____	$_____
Total costs		$_____	$_____
Income			
Hens sold — head_____	lbs._____	$_____	$_____
Toms sold — head_____	lbs._____	$_____	$_____
Total hd._____	total lbs._____	$_____	$_____
Total income		$_____	$_____
Earnings		$_____	$_____

Average weight hens_____ Average weight toms_____

Pounds of feed required to produce 1 pound of turkey_____

Age of hens when sold_____days Date sold_____

Age of toms when sold_____days Date sold_____

Livability _____percent Date hatched_____

Strain_____

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