



Alternative Animal Enterprises

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RABBITS

Department of Animal Science
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INTRODUCTION

Rabbits could feed the world! Their quality meat, efficient gain and reproductive abilities give rabbits distinct advantages as a potential supplier of protein to global diets. For example, the French eat more than 13 pounds of rabbit per person and produce in excess of 300,000 tons of rabbit yearly. Per capita rabbit consumption in the United States is considerably less than in Europe. Most rabbit production and consumption occurs in the southern, western and eastern United States. Rabbit is served in many hotels and restaurants and is marketed at certain retail markets.

ECONOMICS

Rabbit production is not a get-rich-quick scheme. The margins between income and expenses are small, and intensive labor, management and dedication are required. Potential producers lacking long term commitment should not start (average "life" of a rabbit producer is about 18 months). A wise decision for beginners would be to start on a small basis and develop production, budgeting and marketing skills needed to be successful. A brief outline of production considerations is included in this fact sheet.

The following economic information is a guideline for feed costs and returns for a 50 doe, 6 buck operation which should be geared to well-planned marketing. Cost figures will vary according to feed, building and equipment price changes. This is not a recommendation for this size of rabbitry, but a picture of economics. Basic production information used to arrive at this budget is included under the production section.

Capital investment

<u>50 Does - 6 Bucks</u>	
Caging	\$475
Feeders	125
Nest Boxes	150
Automatic watering system	200
	<u>\$950</u>

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Building size, with single decked caging, would be approximately 20 x 42 feet. A remodeled building would be more economical than new construction. Decked caging, with proper design, may work well in our colder climate.

First year - after purchasing weaned, healthy breeding stock

Feed costs - commercial pelleted ration

Prior to first breeding, 1.25 tons @ \$300/ton	\$375.00
Adults, remainder of year, 3.125 tons @ 300/ton	937.50
Young rabbits, 2.25 tons @ \$300/ton	<u>675.00</u>
Total feed cost	\$1,987.50

Fryer sales (750, 4-lb. ave. wt. @ 60 cents/lb.)

5 young/litter, 3 litters/year, 50 does	\$1,800.00
*Net income after feed costs	\$-187.50

(Fryer price typical for delivery to commercial processing facility.)

Second year and thereafter

Feed costs

Adults, 4 tons @ \$300/ton	\$1,200.00
Young rabbits, 4.5 tons @ \$300/ton	<u>1,350.00</u>
Total feed cost	\$2,550.00

Fryer sales, 1,500, 4 lb. ave. wt. @ 60 cents/lb.

6 young/litter, 5 litters/year, 50 does	\$3,600.00
*Net income after feed costs	\$1,050.00

* Amount available to service other expenses such as remodeling or building costs, original and replacement breeding stock cost, interest or depreciation on investment and operating expenses such as interest, health, bedding and marketing. Potential income sources not included are pelt sales (limited markets) and manure sale income.

If the rabbit business is to be approached on this scale, production expertise, careful budgeting and intensive marketing skills are extremely important. Without a balance of components, the profit margin will be low or non-existent and your experience with rabbit production will be regrettable. Production of rabbit for family consumption will make decisions about economics far less threatening. Small excess production can more easily be disposed of than hundreds of excess fryers.

PRODUCTION PRACTICES

Breeding stock

- Buy from reliable, record-keeping breeders.
- Emphasize litter size, milk production, growth rate, percentage of litter weaned, disease resistance, conformation, and longevity.
- Good meat breeds include, but are not limited to, New Zealand (9 - 12 lb. mature weight), Champagne D'Argent French Silver(9 - 11.5 lb.), Californian (8 - 10.5 lb.), Palomino (8 - 11 lb.) and Satin (8.5 - 11 lb.).

Housing

- Hutch should provide comfort to rabbits, and labor and cost savings to producer.
- Portable, open-air self-cleaning hutch is recommended
- Rule of thumb for space is 1sq .ft per 1 pound of rabbit.
- Cage breeding rabbits separately.
- Meat breeds, larger than those mentioned previously,require sitting board or partial wooden floor.
- Nesting boxes, where young are born (kindled), are necessary, portable, internal additions to hutch.
- Provide ample nesting material.
- Use feed crock, trough or hopper to keep feed clean.
- Protect rabbits from cold drafts, strong winds and hot sun.
- Indoor rabbit production requires proper ventilation.

Nutrition

The rabbit's diet affects its growth, health and reproduction. Pelleting adds approximately \$20/ton to feed costs. However, the convenience of feeding a consistent, nutritionally balanced ration may be an advantage to many producers. Ration prices vary among retailers.

- Feed regularly; late afternoon or evening is preferable.
- Provide fresh water and salt (commercially prepared feeds will normally have adequate salt content).
- Mature non-lactating does, mature bucks and growing young eat 3 - 6 ounces of feed/day depending on size and condition (approximately 4% of body wt.).
- Lactating does and growing young (fryers will eat approximately 7% of body wt.) should be full fed their ration.
- Feed efficiency of growing rabbits is approximately 4 lbs. of feed/1 lb. of gain.
- Rabbits fed commercial pelleted or mixed rations do not need green feeds or root crops.
- Feed greens and root crops sparingly.

Reproduction

- Keep one buck for every 8-10 does.
- Avoid fat or thin breeding stock.
- Do not breed does at less than 6 to 7 months of age for medium breeds and 8 to 9 months for large breeds. (Alternative guidelines would include selecting specific weight goals for breed used, e.g. 9 lbs., or visual evidence of physiological maturity, e.g. sex glands.)
- Do not use bucks less than 6 months of age.
- Always take does to the buck hutch for breeding.
- Does' approximate cycle (not a true estrus cycle as does are induced ovulators with variable receptivity) is 21 days; gestation is 29-32 days.
- Wean litter at 8 weeks, sending directly to market.
- Doe is rebred 5 weeks after kindling. (Higher production, under intensive management, with rebreeding at 2 weeks

after kindling, will give up to 8 litters per year.)

- Doe kindles 1 week after weaning.
- Kindling cycle averages 9 weeks (5 litters/doe/year).

Health

- Sanitation is important; clean the hutch frequently.
- Implement fly and rodent control.
- Inspect waterers and feeders daily.
- Exercise care in lending rabbits.
- Isolate sick rabbits.
- Keep new purchases and shown rabbits separate for a minimum of three weeks.
- Properly dispose of dead rabbits.
- Disinfect hutches and equipment regularly.
- Common rabbit diseases are snuffles, enteritis, coccidiosis, dermatitis, udder edema, mastitis and ear canker.

MARKETING

Meat

- Sale of meat or fryers is the largest source of income in commercial rabbit production.
- Processing of rabbit for sale to consumers requires marketing skills, licensed and inspected facilities, and proper processing and packaging for repeat sales.

Research

- Contract with individual facilities with detailed specifications for size, color and/or breed.
- License is required.

Breeding stock

- Potential returns are dependent upon reputation, production records, proven genetics and marketing ability.
- Records should include production, mortality, growth rate, feed efficiency, ease of breeding and temperament.

Pelts

- Pelts have some potential value with proper care.
- Smaller producers can sell to crafts people.
- Some buyers prefer large, quality sources of pelts.

Manure

- Some locations facilitate the sale of manure as a fertilizer.

SOURCES FOR MORE INFORMATION

- American Rabbit Breeders Association, Inc., Glen Carr, Secretary, Rt. 1, P. O. Box 426, Bloomington, Ill. 61701.
- Minnesota State Rabbit Breeders Association, Annette Wiemann, Sec.-Treas., Rt. 1 Box 100, Arlington, Minn. 55307. (Includes bi-monthly bulletin.)
- Your 4-H Rabbit Project*, 4H-BU-0144, Minnesota Extension Service, University of Minnesota.
- Domestic Rabbits — Diseases and Parasites* by N. M. Patton, K.W. Hagen, J.R. Gorman, and R.E. Flatt, Pacific Northwest Extension Publication 310, Sept., 1986.
- Rabbit Production* by P.R. Cheeke, N.M. Patton, S.D. Lukefahr and J.I. McNitt, Interstate Printers & Publishers, Danville, Ill.
- The Journal of Applied Rabbit Research*, Oregon Rabbit Research Center, Oregon State University, Corvallis, Ore. 97331 (quarterly publication).
- Regulation information — Minnesota Department of Agriculture, Food Inspection Div., phone (612)296-2627.

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