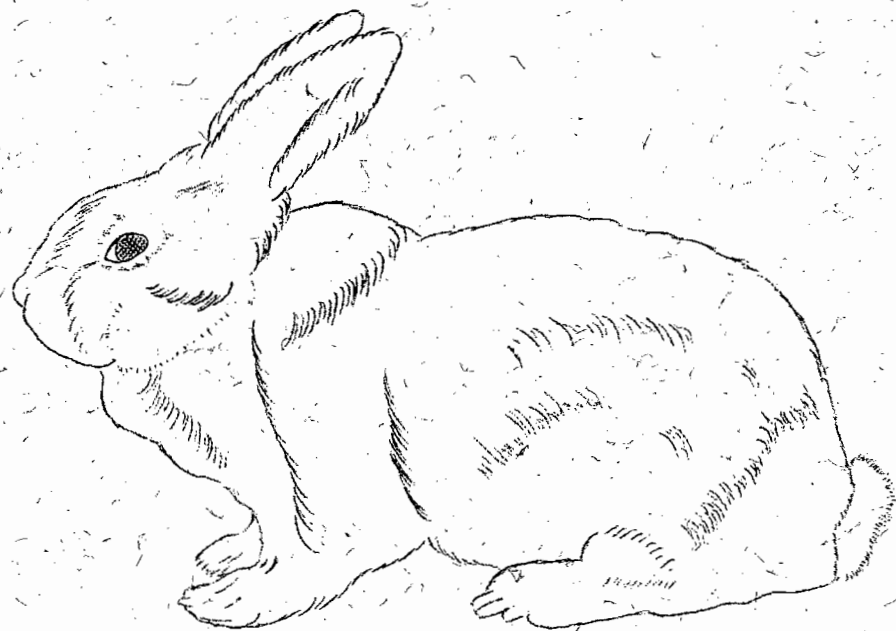


ANNUAL SUMMARY

RA-SI-63-1

1963 RABBIT MANAGEMENT STUDY



John Van Dam, Farm Advisor

INTRODUCTION

Seventeen producers of commercial rabbits in San Bernardino County cooperated with the Agricultural Extension Service throughout 1963 in submitting monthly reports containing complete and detailed information regarding their enterprises. This rabbit management study and report, at the request of commercial rabbit growers in the county, follows a similar management study conducted in San Bernardino County in 1962 with 11 cooperators.

During the year the fryer price per pound declined constantly, so that many rabbit producers were finding it increasingly difficult to make a profit. For those growers who followed good management principles and accounting techniques, the many decisions brought about by a depressed market were not so difficult as similar decisions by other growers.

To determine possible benefits from participating in a study such as this, an analysis was made of those in the 1963 study who also participated in the 1962 study. From 1962 to 1963 this group reduced its average net cost per pound of fryer by 6 1/2 cents, and increased management income per doe by \$2.50.

Additional analysis was made using the 1963 study only, by comparing the above two-year participants with those who cooperated in 1963 only. Compared with the one-year group, the two-year participants had \$2.51 less cash and depreciation expenses per doe, resulting in \$1.32 greater net farm income per doe; but spent 3 1/3 hours more time per doe in the rabbitry, as reflected by the \$4.66 larger family labor charge.

This study would not have been possible without the interest of the rabbit producers who cooperated by sending in monthly reports. Appreciation is expressed for their cooperation. They have helped themselves and others in their industry by making this report possible.

DEFINITIONS FOR RABBIT ENTERPRISE ANALYSIS

Total Income - The amount received from sale of rabbits and rabbit products, plus the value of rabbits eaten, and any change in inventory in rabbit stock. This is reported as expense per doe and per pound fryer.

Total Expense - The amount paid for all feed, supplies, hired labor, breeding stock purchased, and miscellaneous items. Value of family labor at \$1.50 an hour, depreciation, and 6 per cent interest on average investment are included. This is reported as expense per doe and per pound fryer.

Net Farm Income - Income available to the rabbitry after all cash costs and depreciation have been deducted.

Management Income - Net income remaining after payment of family labor, interest, depreciation, and all cash costs. It is the income available to the rabbitry operator for his management ability.

Average Number of Working Does - Average number on hand any one day; sum of does on hand each day, divided by 365.

Per Cent Doe Mortality - Total number does reported died, divided by average number does in herd.

Per Cent Herd Culled - Total number of breeding stock sold and eaten, divided by average number of does in herd.

Per Cent Breeding Stock Purchased - Breeding stock purchased expressed as a percentage of total replacement.

Per Cent Breeding Stock Sold - Breeding stock sold, divided by total does and bucks in production.

Per Cent Herd Replacement - New does and bucks placed in production, divided by total does and bucks in production.

Pounds of Fryers per Doe - Total pounds fryers sold, divided by average number of does in herd.

Fryer Price per Pound - Total money received from sale of fryers, divided by number of pounds fryers sold.

Pellet Feed Costs per Cwt. - Total cost of pelleted feed, divided by total pounds of pelleted feed purchased.

Feed-to-Meat Ratio - Total pounds of all feed bought, divided by number of pounds of fryers sold. It is the pounds of feed used by all stock to produce a pound of fryer meat.

No. Kindlings per Doe - Total litters kindled, divided by average number of does in herd.

Average No. Young Raised per Doe - Total young that were weaned, divided by the average number of does.

Juniors per Doe - Average juniors, divided by average does.

Rabbitry Size - Divided into three groups.
 Group A: Less than 125
 Group B: 125 to 225
 Group C: 225 and over

SUMMARY

COSTS AND RETURNS PER DOE PER YEAR

Gross Income	\$28.25
Fryer Sales	\$25.66
Mature Rabbit Sales	.86
Breeding Stock Sales	.89
Miscellaneous Income	.54
Inventory Change (+ or -)	.30

Gross Expense	\$33.04
Feed (Pelleted)	\$17.86
Feed (Other)	.31
Stock Purchased	.17
Interest (6%) on Investment	2.04
Depreciation	1.70
Miscellaneous	1.33
Labor	
Family	9.49
Hired	.14

Gross Income	\$28.25
Less Cash Costs	\$19.81
Net Cash Income	8.44
Less Depreciation	1.70
Net Farm Income	6.74
Less Family Labor	9.49
Capital and Management Labor	-2.75
Less Interest on Investment	2.04
Management Income	\$-4.79

It is imperative to realize that the only index for determining if a rabbitry is producing satisfactorily is by keeping accurate production records. It is the only method of factually determining whether or not the rabbit enterprise is profitable; and if so, how much or how little.

INCOME AND EXPENSE PER POUND FRYER PRODUCED

INVESTMENT PER DOE

Serial No. & Size	Total Income	Total Cash & Deprec. Costs	Net Farm Income	Total Expense	Management Income	Net Cost of Fryers	Land	Building and Equipment	Misc. Supplies	Feed	Stock	Total
2A	.28	.18	.10	.23	.05	.18	5.20	16.58	-0-	.15	5.73	27.66
11A	.24	.14	.10	.20	.04	.19	14.01	18.11	.06	1.73	4.83	38.74
5C	.26	.19	.07	.25	.01	.23	7.57	16.78	.04	.06	6.36	30.81
12C	.27	.19	.08	.26	.01	.23	11.54	4.50	.03	.16	5.32	21.55
15B	.27	.20	.07	.28	-.01	.24	12.99	13.30	.01	.24	6.03	32.57
19C	.26	.20	.06	.27	-.01	.25	4.67	21.47	.05	.42	5.79	32.40
13C	.24	.18	.06	.25	-.01	.25	7.51	15.87	.12	.63	4.89	29.02
3B	.26	.22	.04	.27	-.01	.26	4.50	28.24	.03	.74	5.79	39.30
14C	.25	.20	.05	.28	-.03	.26	11.30	23.13	.01	.34	6.72	41.50
7B	.25	.19	.06	.30	-.05	.29	15.47	3.66	.02	.09	4.84	24.08
10B	.25	.21	.04	.30	-.05	.28	17.08	4.80	-0-	.13	6.28	28.30
18A	.25	.21	.04	.31	-.06	.30	5.79	30.02	.08	.52	5.62	42.03
1A	.28	.25	.03	.41	-.13	.37	4.95	20.83	.09	1.20	5.05	32.12
8B	.26	.20	.06	.40	-.14	.38	3.79	26.10	-0-	.16	6.94	36.99
16B	.28	.30	-.02	.48	-.20	.43	4.58	10.71	.01	.28	5.12	20.70
6A	.22	.17	.05	.34	-.12	.36	29.85	16.57	.02	.52	5.30	52.26
9A	.32	.21	.11	.46	-.14	.38	10.31	36.42	-0-	.70	9.15	56.58
Avg.	.26	.20	.06	.31	-.05	.29	10.07	18.06	.03	.48	5.87	34.51

INCOME AND EXPENSE PER DOE

Serial No. & Size	INCOME PER DOE						CASH AND DEPRECIATION COSTS PER DOE							NON-CASH COSTS				Net Cost of Fryers	Management Income
	Fryers Sold	Mature Rabbits Sold	Breeding Stock Sold	Misc. Income	Inventory Changed in Stock	Total Income	Stock Purchased	Pellet Feed	Other Feed	Hired Labor	Misc. Expenses	Depreciation	Total	Net Farm Income	Family Labor \$1.50/hr.	Investment Interest (6%)	Total Expenses		
2A	27.59	.85	3.77	2.32	-1.16	33.37	-0-	18.64	-0-	-0-	2.83	.51	21.98	11.39	3.65	1.66	27.29	21.51	6.08
11A	29.79	.73	-0-	-0-	-.26	30.26	1.17	14.97	.49	-0-	.69	.64	17.96	12.30	4.35	2.32	24.63	24.16	5.63
5C	26.83	.73	.01	.01	1.53	29.11	.06	18.03	.08	-0-	1.20	2.01	21.38	7.73	4.31	1.85	27.54	25.27	1.56
12C	24.90	.87	2.82	.76	-.56	28.79	.05	16.77	-0-	.10	1.58	1.48	19.98	8.81	7.48	1.29	28.75	24.86	.04
15B	28.25	.98	1.12	.15	1.59	32.09	.38	18.85	-0-	.30	1.53	2.26	23.32	8.77	7.29	1.95	32.56	28.72	-.47
19C	28.03	.74	.21	.65	.38	30.01	-0-	19.21	.54	-0-	1.10	1.81	22.66	7.35	6.59	1.90	31.15	29.17	-1.14
13C	29.05	.75	4.86	.13	-4.54	30.25	.06	19.19	-0-	1.01	.79	1.50	22.55	7.70	7.33	1.74	31.62	30.42	-1.37
3B	25.54	.52	.06	-0-	.75	26.87	-0-	18.60	.52	-0-	.48	2.85	22.45	4.42	3.51	2.36	28.32	26.99	-1.44
14C	27.82	1.13	-0-	-0-	.82	29.77	-0-	20.39	.07	-0-	1.24	2.37	24.07	5.70	6.79	2.49	33.35	31.40	-3.58
7B	21.24	.45	.36	.33	-.29	22.09	-0-	15.40	-0-	-0-	1.43	.31	17.14	4.95	8.17	1.44	26.75	25.90	-4.66
10B	22.72	.88	-0-	.04	1.29	24.93	-0-	17.25	.39	.53	1.78	.69	20.64	4.29	7.45	1.70	29.79	27.58	-4.86
18A	26.06	.75	-0-	.45	.09	27.35	-0-	17.66	-0-	-0-	1.24	4.25	23.15	4.20	8.22	2.52	33.89	32.60	-6.54
1A	22.54	1.80	1.63	.42	-.43	25.96	1.12	17.66	1.29	-0-	1.16	1.97	23.20	2.76	12.48	1.93	37.61	34.19	-11.64
8B	21.88	.54	-0-	2.77	-1.38	23.81	-0-	14.75	1.30	-0-	1.15	.83	18.03	5.78	16.36	2.22	36.61	34.68	-12.80
16B	16.51	.64	.04	-0-	3.12	20.31	-0-	17.43	.01	.45	2.00	1.47	21.36	-1.05	11.87	1.24	34.47	30.67	-14.16
6A	27.15	.98	-0-	.40	-3.05	25.48	-0-	17.45	.47	-0-	.90	.90	19.72	5.76	16.93	3.13	39.78	41.45	-14.30
9A	30.35	1.24	.27	.80	7.13	39.79	-0-	21.35	.21	-0-	1.60	2.99	26.15	13.64	28.42	2.98	57.55	48.11	-17.76
Avg.	25.66	.86	.89	.54	.30	28.25	.17	17.86	.31	.14	1.33	1.70	21.51	6.74	9.49	2.04	33.04	30.45	-4.79

The above chart is arranged according to management income. As management income declines, it is noted that family labor increases. Variations in management income are primarily due to varying family labor per doe. The chart further reveals a relationship between rabbitry size and family labor. The rabbitries with lower labor charges also had higher per doe management income.

PRODUCTION ANALYSIS

Serial No. & Size	Buck to Doe Ratio	No. Kindling per Doe	Avg. Young Born Alive per Doe	MORTALITY OF					Herd Culled %	Herd Replacement %	Breeding Stock Purchased %	Breeding Stock Sold %	Total Hours Labor per Doe	Juniors per Doe	Total Young Raised per Doe	Pounds Fryer Sold per Doe	Fryer Price per Pound (¢)	Feed Cost per Cwt.	Pounds Feed per Pound Fryer
				Young Born Dead %	Doe %	Buck %	Junior %	Fryers Over 4 Weeks %											
				%	%	%	%	%						%					
2A	9.1	4.6	41.6	11.7	49.4	8.5	30.0	13.9	85.6	113.3	-0-	98.4	2.4	37.6	33.9	123.0	.23	3.47	4.3
11A	10.4	5.3	41.1	15.4	51.0	N.A.	N.A.	9.5	82.8	113.4	41.0	-0-	2.9	N.A.	35.8	133.0	.23	3.38	3.3
5C	16.2	5.0	45.9	5.8	48.4	N.A.	25.2	9.6	84.6	159.2	1.5	1.3	2.9	40.6	37.3	127.1	.24	3.59	3.9
12C	8.9	4.7	39.9	N.A.	54.5	9.6	26.2	9.0	90.9	121.9	1.9	87.0	5.0	31.0	31.0	111.6	.23	3.42	4.4
15B	9.1	4.9	45.7	8.3	43.3	-0-	36.9	9.9	98.0	156.7	9.3	49.8	5.0	25.0	38.5	129.3	.24	3.44	4.2
19C	10.6	5.0	45.1	11.2	61.4	20.8	34.5	9.5	83.6	142.3	-0-	21.1	4.4	34.0	33.6	122.9	.23	3.50	4.5
13C	9.3	4.7	42.5	7.4	76.6	28.0	7.1	6.8	75.7	118.6	1.6	95.0	5.6	38.3	33.4	128.1	.23	3.46	4.3
3B	5.4	4.9	40.7	10.2	51.3	12.2	11.5	18.7	51.8	116.3	-0-	1.9	2.3	19.6	31.5	106.6	.24	3.37	5.2
14C	12.1	5.8	51.8	8.9	74.6	25.1	28.8	11.5	128.1	218.3	-0-	-0-	4.5	81.7	38.2	130.8	.23	3.30	4.7
7B	7.7	3.1	26.0	2.6	44.4	23.8	38.7	11.1	53.1	95.4	.5	12.4	5.4	32.0	24.2	93.7	.23	3.54	4.8
10B	7.8	4.7	39.3	7.8	74.4	17.5	70.6	9.4	87.3	131.7	-0-	-0-	5.3	49.5	32.1	107.7	.23	3.55	4.6
18A	6.4	4.8	40.4	3.5	75.9	5.8	54.5	4.3	75.0	138.5	-0-	-0-	5.5	58.0	32.2	115.7	.24	3.56	4.1
1A	10.4	5.3	41.1	20.9	47.5	30.9	26.9	18.1	180.0	148.9	11.5	30.9	8.3	36.8	28.8	98.5	.24	3.45	5.0
8B	6.3	4.0	32.9	9.4	72.0	4.8	85.5	15.0	63.6	122.2	-0-	-0-	10.9	37.2	26.1	99.2	.23	3.37	4.7
16B	6.8	4.1	29.8	N.A.	49.8	10.0	87.4	16.2	63.7	152.6	-0-	1.3	8.2	41.9	23.4	78.4	.23	3.41	6.5
6A	5.7	6.0	49.8	13.7	44.8	16.9	43.2	18.4	90.0	111.7	-0-	-0-	11.3	41.5	29.2	121.0	.23	3.21	4.8
9A	9.0	5.3	44.9	20.1	24.7	18.5	36.5	18.0	119.6	120.6	-0-	10.0	18.9	41.2	40.2	143.2	.24	3.12	5.4
Avg.	8.9	4.8	41.1	10.5	55.5	15.5	40.2	13.4	89.0	134.2	4.0	24.1	6.4	40.4	32.3	115.9	23.3	3.42	4.6

MANAGEMENT AND PRODUCTION SUMMARY

MANAGEMENT DATA

STUDY AVERAGE

Doe Mortality	55.5 %
Herd Culled	89.0 %
Herd Replacement	134.2 %
Hours Labor (per Doe per Year)	6.4
Does per Buck	8.9

PRODUCTION DATA

STUDY AVERAGE

Number of Kindlings (per Doe per Year)	4.8
Total Young Raised (per Doe per Year)	32.3
Pounds Fryers Sold (per Doe per Year)	115.9
Pounds Feed to Pound Fryer	4.6
Cost per Hundred Pounds Feed (Pelleted)	3.42

The U. S. Rabbit Experiment Station says a husband and wife team should be able to operate a 600-doe rabbitry, based on both working a 40-hour week. This hypothetical unit would provide enough labor for 6.9 hours per doe.

Most of the rabbitries in the study were operated by a husband and wife team. Labor was reported at 6.4 hours per doe, or 0.5 hour less than that required by the hypothetical rabbitry. However, the study rabbitries averaged only 247.5 does, and the hours worked per week amounted to only 31.2 hours, or an equivalent of 15.6 hours per person.

FACTORS INFLUENCING PRODUCTION PER DOE

Serial No. & Size	Total Lbs. Fryer Sold per Doe	Kindlings per Doe	Total Young Born Alive per Doe	Young Born Dead	Total Young Raised per Doe	MORTALITY OF		Avg. Lbs. per Fryer	Lbs. Feed per Lb. Fryer	Feed Cost per Cwt.
						Working Does	Fryers Over 4 Weeks			
				%		%	%			
9A	143.2	5.3	44.9	20.1	40.2	24.7	18.0	4.3	5.4	3.12
11A	133.0	6.3	41.1	15.4	35.8	51.0	9.5	4.1	3.3	3.38
14C	130.8	5.8	51.8	8.9	38.2	74.6	11.5	4.2	4.7	3.30
15B	129.3	4.9	45.7	8.3	38.5	43.3	9.9	4.1	4.2	3.44
13C	128.1	4.7	42.5	7.4	33.4	76.6	6.8	4.2	4.3	3.46
5C	127.1	5.0	45.9	5.8	37.3	48.4	9.6	4.2	3.9	3.59
2A	123.0	4.6	41.6	11.7	33.9	49.4	13.9	4.3	4.3	3.47
19C	122.9	5.0	45.1	11.2	33.7	61.4	12.7	4.3	4.5	3.50
6A	121.0	6.0	49.8	13.7	29.2	44.8	18.4	4.4	4.8	3.21
18A	115.7	4.8	40.4	3.5	32.2	75.9	4.3	4.2	4.1	3.56
12C	111.6	4.7	39.9	N.A.	31.0	54.5	9.0	4.2	4.4	3.42
10B	107.7	4.7	39.3	7.8	32.1	74.4	9.4	4.2	4.6	3.55
3B	106.6	4.9	40.7	10.2	31.5	51.3	18.7	4.2	5.2	3.37
8B	99.2	4.0	32.9	9.4	26.1	72.0	15.0	4.5	4.7	3.37
1A	98.5	5.3	41.1	20.9	28.8	47.5	18.1	4.1	5.0	3.45
7B	93.7	3.1	26.0	2.6	24.2	44.4	11.1	4.3	4.8	3.54
16B	78.4	4.1	29.8	N.A.	23.4	49.8	16.2	4.5	6.5	3.41
Hi 9 Avg.	128.7	5.3	45.37	11.4	35.6	52.7	12.2	4.2	4.4	3.38
Lo 8 Avg.	101.4	4.5	36.26	9.1	28.7	58.7	12.7	4.3	4.9	3.46
Study Avg.	115.9	4.8	41.1	10.5	32.3	55.5	12.4	4.25	4.6	3.42

Production per doe is an important profit determining factor in commercial rabbit production. The above table shows factors that affect this production. The high producing group averaged 128.7 pounds of fryers per doe, and the less profitable group averaged 101.4, a difference of 27.3 pounds. At this year's average per pound fryer price of 23.3 cents, this represents a difference of \$6.36 per doe per year. More kindlings per doe, a higher percentage raised of rabbits kindled, and lower mortality rates resulted in the higher production.

SUMMARY

The table "Factors Influencing Production Per Doe" shows a wide range in pounds of rabbit produced per doe. A factor directly influencing this production is kindlings per doe. This factor ranged from 3.1 to 6.3; therefore, 4.9 kindlings should be a realistic, attainable goal.

Using the study average of 8.4 young per kindling would give approximately 41 young per doe per year. With good care, 78.6 per cent of this, or 32.2, should be raised. With a 55.5 per cent mortality of does and a small mortality of buck and junior breeding stock, the net number raised should be 27.3 per doe. At an average weight per fryer of 4.25 pounds, a production of 115.9 pounds of fryer per doe would be attained. The table shows nine records with this much or more. The more profitable group averaged 122.7 pounds per doe. A good rabbit producer should, therefore, be able to obtain 115.9 pounds per doe or better.

A careful breeding program can result in higher kindlings, but sufficient data has not, as yet, been obtained to indicate advantages of any particular practice.

Agricultural Extension Service

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UC COOPERATIVE EXTENSION