



Farming goats in extensive pastoral systems

This information sheet outlines best practice for farming goats in an extensive system. It is based on data gathered in the Goat Monitoring Project.

It shows that goats run extensively can return an income from their meat of around \$18/head. Plus they provide cheap weed control and a means of 're-claiming' land for other stock classes.

(1) Goats suited to extensive, arid regions

There are some areas of New Zealand where intensive farming is not an option. Goats are traditionally from more arid regions of the world and thrive on conditions that are dry and rocky such as the ranges of the South Island.

Much of this land is marginal for New Zealand traditional sheep and beef pastoral systems and offers little opportunity to intensify or diversify. Goats are one system that fits with this environment.

(2) Addition to farm income

Results from the Goat Monitoring Project (2004 to 2006) showed that goats farmed extensively could be in addition to current stock numbers. In other words they don't have to displace sheep or cattle.

Also, the proportion of goat stock units of the total stock units can be high in extensive farm systems. This is because goats utilise land that is not otherwise utilised by other stock classes.

A gross margin based on the Goat Monitoring Project data shows that extensively farmed goats can return \$20.41/goat stock unit. This is based on the farm earning \$18/goat su, plus added weed control benefit less a small animal health cost. Adult goats are considered to be worth around 0.8 stock units.



Photo courtesy of Country-Wide Publications.

Dave Aitken with goats on Waitiri station

Farm example: Goats open-up country on Waitiri Station

Goats have only been on the Arrowtown station for four years but they have made an impact on weeds already.

Lessees of the station, Dave and Jenny Aitken and Stan and Bridgette Jones, run 1500 cashmere-type and Boer-cross does, as well as cattle and merinos. The goats are rotationally grazed in one mob around 15% of the property.

Country that was once choked with matagouri, briar and rose-hip can now be walked through. Three-meter bushes are being ring-barked and young seedlings nipped out. Grazing for merinos and cattle is now accessible. The vegetable matter content in the wool has halved.

Some fences were upgraded to contain goats.

The property was one of the farms in the Goat Monitoring Project.

(3) Case study example

Using information from the Goat Monitoring Project, a case study farm has been drawn up to illustrate the benefits of farming goats extensively.

The farm system is based on –

- Capitalizing on the feed available, which is largely brush weeds such as briar, matagouri and broom.
- Creating new areas where sheep and cattle can be grazed, therefore extending the effective area of existing enterprises.

Goats were introduced into the system so they made up 68% of the stock units.

Table A: Example farm with 68% of stock units in goats (Based on information from the Goat Monitoring Project).

TOTAL FARM SIZE (ha)		3850	
TOPOGRAPHY:	Steep	95%	3658 ha
	Flat	5%	193 ha
STOCK UNITS:	SR/Total	1 SU/ha	3850 SU
% SHEEP		27%	1040 SSU
% CATTLE		5%	193 BSU
% GOATS		68%	2617 GSU

WEED CONTROL

Controlling weeds and opening up land for grazing for other stock is one of the key roles of goats.

Farms that ran goats spent \$0.86/ha less on weed and pest control than similar Meat & Wool Survey Farms without goats. The added benefit of having goats provided a saving of \$3,311 for this case study farm based on total area.

Table B: Average annual Weed and Pest spend, 2004-06

	MEAT GOAT FARMERS	MEAT & WOOL SURVEY FARMS
\$ Per Hectare	0.50	1.36
\$ Per Stock Unit	0.52	1.34
\$ Over 3850 ha	1,925.00	5,236.00

Note: Weed and Pest spend also included pest control.

Table C: Average carcass weight (kg) and value of each goat class, Goat Monitoring Project (2004-2006).

	AVERAGE WEIGHT (kg CW)	\$/kg			
		\$1.50	\$3.00	\$3.30	\$3.50
Kids	12.0		36.00	39.60	42.00
Yearlings	13.8		41.40	45.54	48.30
Does	28.0	42.			
Wethers	18.9	28.			
Bucks	35.0	53.			

In the case study farm, goat income was \$18/head from meat. This assumes that the goat flock weans 100% (some properties may not accurately know this). Goats are then finished to 13 to 17kg carcass weight as yearlings. This varied on how they were managed.

(4) Summary of benefits

Table D: Gross Margin of case study farm with 68% stock units in meat goats (2617su).

GOAT MEAT INCOME \$	47,106
PLUS WEED CONTROL BENEFIT \$	7,500
BENEFIT TOTAL \$	54,606
LESS ANIMAL HEALTH COSTS \$	-1,196
GROSS MARGIN \$	53,410
GROSS MARGIN PER GOAT STOCK UNIT \$	20.41

The savings in weed and pest control less animal health costs give a net benefit of just over \$20/goat su for the case study farm.

(5) Managing extensively farmed goats

FOR GENERAL INFORMATION ON FENCING, FEEDING AND GOAT ANIMAL HEALTH, SEE GOAT INFORMATION SHEET 1.

(A) LABOUR

On average the Goat Monitor farmers spent 16 minutes per goat stock unit, per annum, doing the following tasks: This is about half of that needed for intensively farmed meat goats.

Table E: Average estimated time spent on goat tasks annually, Goat Monitoring Project.

TASK	% ESTIMATED TIME
Fencing	42%
Checking Stock	28%
Weighing and sorting animals	23%
Docking, tagging and marking	5%
Animal Health	1%
Feeding	1%

Some tasks such as fencing and checking stock added benefits to the whole farm (and other enterprises) and is not always easy to get an accurate assessment as to proportion solely for goats.

(B) FEEDING

It is important to give goats a variety of feed and some level of roughage is always required.

Goats will control Californian thistle in the same way as chemical topping. They remove the green, reducing root reserves over time. Gorse can be 25% of a goat's diet.



(C) MATING AND KIDDING

Management of mating and kidding is not necessarily important in this environment. However having some control over timing of kidding will improve kid survival and the profitability from your goats.

When setting mating and kidding dates consider –

- projected feed supply
- weather conditions
- other tasks on the farm.

Mid-May mating will result in a mid-October kidding. Having does in good condition going into the winter is important. Liveweight target for mixed age does is 40 kg liveweight, although this will vary between breeds.

Depending on terrain, a buck:doe ratio of 1:50 is suggested. The harder the terrain, the lower the ratio. Conversely if it is gentler, it can be lifted. The buck needs to be working and fit when put out with the does.

(D) CULLING

Often there is a level of natural culling that exists in this extensive type of farming. The aim is to have an animal that will survive the environment. Cull at key times of the year, when goats are yarded. Things to look for are foot problems, poor udders and bad mouths.

(E) GOAT HEALTH

Using the case study, based on \$/total stock unit, the farmers with extensively run goats spent far less on animal health per total stock units. Average spend per goat was \$1.08, with about half this cost in providing salt blocks.

Farmers in the Goat Monitoring Group had a high proportion of goats that received minimal animal health input.

The majority of the animal health spend was spent on minerals in the form of salt blocks.

Table F: Difference in animal health spending

	MEAT GOAT FARMERS	MEAT & WOOL SURVEY CLASSES
\$ Per Stock Unit	0.73	2.79
\$ Per Goat Stock Unit	1.08	
\$ Total stock units	2,810.50	10,741.50

If goats are farmed in areas that would otherwise be left ungrazed, animal health comes as an extra cost. However, spending on animal health is recouped by the returns from goat meat, cheaper weed control and benefits from 're-claiming' land for other stock classes.

Goat animal health for participating farmers was calculated using actual anthelmintics used at a standard price.

Depending on the ease of getting salt blocks to the goats, budget on one block per 50 animals once a year (or one to 100, twice a year). In this case, this would equate to 52 blocks @ \$23/block, giving spend of \$1,196. The animal health spend per goat stock unit on salt works out at \$0.45/gsu.

PARASITES

Consider drenching susceptible stock such as those in poor condition or under stress. In this environment internal parasites are less of an issue due to the terrain and forage which the goats are eating. However, other animal health issues to consider are 5-in-1 vaccination and lice.

FOOTROT

Footrot is less of an issue in extensively farmed goats.

Acknowledgements & more information

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Other information sheets from Meat & Wool New Zealand cover returns from farming goats, fibre goats, intensively-farmed meat goats and feral goats.

For copies phone Meat & Wool New Zealand on 0800 696 328 or visit www.meatandwoolnz.com

For more information on goats see –

- Final Report (Goat Monitoring Project) 2008
- Goat Pack
- Weed Control, 2005. Detailed information on using goats to control weeds.
- Meat production, 2005.

These are all available from Meat & Wool New Zealand and on the website.

Contact:

Sally Lee

AgFirst Waikato
(07) 834 6824
sally.lee@agfirst.co.nz

Phyllis Mangin

Meat & Wool New Zealand
(04) 474 0693
Phyllis.Mangin@meatandwoolnz.com

