

Deer Industry Statistics

by Chris Tuckwell

October 2007

RIRDC Publication No 07/174 RIRDC Project No DIP-17A © 2007 Rural Industries Research and Development Corporation. All rights reserved.

ISBN 1 74151 569 6 ISSN

"Deer Industry Statistics" Publication no 07/174 Project no. DIP-17A

The information contained in this publication is intended for general use to assist public knowledge and discussion and to help improve the development of sustainable regions. You must not rely on any information contained in this publication without taking specialist advice relevant to your particular circumstances.

While reasonable care has been taken in preparing this publication to ensure that information is true and correct, the Commonwealth of Australia gives no assurance as to the accuracy of any information in this publication.

The Commonwealth of Australia, the Rural Industries Research and Development Corporation (RIRDC), the authors or contributors expressly disclaim, to the maximum extent permitted by law, all responsibility and liability to any person, arising directly or indirectly from any act or omission, or for any consequences of any such act or omission, made in reliance on the contents of this publication, whether or not caused by any negligence on the part of the Commonwealth of Australia, RIRDC, the authors or contributors.

The Commonwealth of Australia does not necessarily endorse the views in this publication.

This publication is copyright. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. However, wide dissemination is encouraged. Requests and inquiries concerning reproduction and rights should be addressed to the RIRDC Publications Manager on phone 02 6271 4165.

Researcher Contact Details

Chris Tuckwell Rural Industry Developments PO Box 1105 GAWLER SA 5118

Phone: (08) 8523 3500 Fax: (08) 8523 3301 Email: cdt@bigpond.net.au

RIRDC Contact Details

Rural Industries Research and Development Corporation Level 2 Pharmacy Guild House 15 National Cct BARTON ACT 2600 PO Box 4776 KINGSTON ACT 2604

Phone: 02 6271 4100 Fax: 02 6271 4199

Email: rirdc@rirdc.gov.au.
Web: http://www.rirdc.gov.au

Published in October 2007 Printed by Canprint

Foreword

The research and development emphasis of the RIRDC Deer Industry Research and Development Advisory committee since 1997 has been the development and expansion of the Australian Deer Industry. Projects are focussed on consolidating industry infrastructure, strengthening supply systems and the development and implementation of an industry Quality Assurance program.

The expansion of the industry in Australia continues to be dependent on objective collection, interpretation and dissemination of positive market information as well as the development of marketing and production strategies based on accurate records.

Major goals of this project were to assist development, expansion and confidence in the Australian deer industry by providing ongoing maintenance and regular updating of deer industry databases and regular interpretation and reporting of deer industry statistics. Project goals have been achieved and are reported here.

Average venison prices showed some improvement throughout 2006-07, from about \$2.43/kg hot carcase weight to \$2.70/kg however average carcase weight and number processed dropped during this season so the price improvement is more likely a reflection of demand exceeding supply. The number of animals processed and the industry's total venison production fell to about half of that processed during the 2005-06 season.

Knowledge of available promotional material and its location provided by this report will allow careful planning of industry development and marketing programs.

This project was funded from industry revenue that is matched by funds provided by the Australian Government.

This report, a new addition to RIRDC's diverse range of over 1600 research publications, forms part of our Deer R&D program, which aims to foster a Deer Industry which is a profitable and sustainable food industry.

Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at www.rirdc.gov.au/fullreports/index.html
- purchases at www.rirdc.gov.au/eshop

Peter O'Brien

Managing Director Rural Industries Research and Development Corporation

Acknowledgments

As with other recent projects undertaken by the Deer Industry Company, this project could not have been undertaken without the continued support and assistance of the directors of the Deer Industry Company, processors who contributed vital processing data and many other industry people.

In particular, I acknowledge the ongoing support of Mr Jim Moir the President of the Deer Industry Association of Australia.

Recognition of the ongoing commitment of the project's research officer, Solange Shapiro is again timely and appropriate. The project could not have been undertaken without Solange's commitment to achieving the project's aims and her commitment to the Australian deer industry generally.

Abbreviations

ADH Australian Deer Horn and Co-Products Company

AUD Australian Dollar

DIAA Der Industry Association of Australia

EUR Euro

GREEN VELVET Whole sticks of unprocessed frozen velvet antler

HCW Hot Carcase Weight

RIRDC Rural Industry Research and Development Corporation

Contents

FOREWORD	III	
ACKNOWLEDGMENTS	IV	
ABBREVIATIONS	IV	
LIST OF TABLES	VII	
EXECUTIVE SUMMARY	VIII	
INTRODUCTION	1	
OBJECTIVES	1	
METHODOLOGY	1	
RESULTS	2	
VENISON PRODUCTION	2	
Average Carcase Weight	2	
Value and Volume of Venison Production		
Number of deer processed		
Average Venison Price to Farmers	5	
Long Term Red/Fallow Price Differences [April 1998 to June 2007]		
Comparison of Red/Fallow Price Differences [April 1998 to June 2002 and July 2002 to June 2007]		
Velvet Antler Production	8	
Velvet Production	8	
Velvet Antler Prices.		
Guide to Prices Received by ADH for the 2005-2006 Pools		
DISCUSSION	11	
Venison	11	
Farm Gate Value of Venison	11	
Venison Production Summary		
Venison Price Differential and Carcase Weight Distribution		
Red Deer – Average of all seasons from 1998-99 to 2006-07		
Fallow – Average of all seasons from 1998-99 to 2006-07		
Red Deer – Difference in average for each season from 2001-02 to 2006-07	15	
Fallow Deer – Difference in average for each season from 2001-02 to 2006-07		
Velvet antler	17	
IMPLICATIONS	17	
RECOMMENDATIONS	17	
COMMUNICATIONS STRATEGY	17	
EEEDENCES		

List of Graphs

Graph 1	- AVERAGE HCW OF RED DEER	2
GRAPH 2	- AVERAGE HCW OF FALLOW DEER	2
Graph 3	- TOTAL VALUE AND VOLUME OF INDUSTRY VENISON PRODUCTION	3
GRAPH 4	- Total Number of Processed	4
GRAPH 5	- Number of Red Deer Processed	4
Graph 6	- Number of Fallow Deer Processed	5
Graph 7	- AVERAGE VENISON PRICE (\$/KG HCW)	5
Graph 8	- DIFFERENCE IN AVERAGE PRICE FOR RED AND FALLOW DEER VENISON	6
Graph 9	- PERCENTAGE OF TIME [APRIL 1998 TO JUNE 2007] RED OR FALLOW HCW PRICES GREATER	6
Graph 10	- Long Term [April 1998 to June 2007] Average HCW Price Paid for Red and Fallow Venison	.7
Graph 11	- PERCENTAGE OF TIME RED OR FALLOW HCW PRICES GREATER	7
Graph 12	- Long Term [July 2002 to June 2007] Average HCW Price Paid for Red and Fallow Venison .	8
Graph 13	- VOLUME OF VELVET SOLD BY ADH	8
Graph 14	- VALUE OF VELVET SOLD BY ADH	9
Graph 15	- RED - VENISON PRICE DIFFERENTIAL AND CARCASE WEIGHT DISTRIBUTION	13
Graph 16	- FALLOW - VENISON PRICE DIFFERENTIAL AND CARCASE WEIGHT DISTRIBUTION	14
Graph 17	- Red - Venison Price Differential and Carcase Weight Distribution 2001-02 to 2005-06	15
GRAPH 18	- FALLOW - VENISON PRICE DIFFERENTIAL AND CARCASE WEIGHT DISTRIBUTION 2001-02 TO 2006-07.	16

List of Tables

TABLE 1	Annual Average Hot Carcase Weight	3
TABLE 2	November 2006 Pool Prices	10
TABLE 4	SEASON AVERAGE VELVET PRICES	10
TABLE 3	FEBRUARY 2007 POOL PRICES	10
TABLE 5	TOTAL VALUE OF VENISON	11
TABLE 7	VALUE OF RED DEER VENISON	11
TABLE 6	Value of Fallow Deer Venison	11
TABLE 8	Value of Rusa Deer Venison	11
TABLE 9	TOTAL VOLUME OF VENISON PROCESSED	12
TABLE 10	RED DEER PROCESSED	12
TABLE 11	FALLOW DEER PROCESSED	12
TABLE 12	RUSA DEER PROCESSED	13

Executive Summary

What is the report about

The expansion of the deer industry in Australia continues to be dependent on the objective collection, interpretation and dissemination of positive market information, as well as the development of marketing and production strategies based on accurate records.

Background

Accurate statistics provide the Australian Deer Industry with supportable, objective data that can be used to plot existing trends in production price and demand for products. They also provide a basis for extrapolating future trends that give a foundation for industry research, market development and industry expansion programs that strengthen the supply base for venison marketers and velvet processors.

Aims/Objectives

To assist development, expansion and confidence in the Australian deer industry by:

- 1. Ongoing maintenance and regular updating of deer industry databases.
- 2. Regular interpretation and reporting of deer industry statistics.

Results/Key findings

General

The Australian deer industry received a boost in the 2006-07 season with a significant increase in prices for velvet antler. Venison prices show some slight trends towards increase but the change is relatively minor.

The widespread drought in Australia has affected all forms of agriculture and the deer industry has suffered badly as expensive feed supplements and generally low venison prices have forced many more deer farmers to leave the industry.

Venison

Venison statistics presented in this report have been adjusted to take account of the researcher's assumption that actual data collected does not account for all deer processed throughout Australia. In past years data collected was assumed to represent about 75% of the total Australian farmed venison kill.

In this report, data collected is assumed to represent only about 60% of the total Australian farmed venison kill. This is due to total kill by large processors decreasing, while smaller domestic processors appear to have maintained their kill and some new boutique processors have begun. Therefore, the proportion of small domestic processing has proportionally increased.

Data collected represents an estimated 5,140 animals, and adjustments have been made to make the data more representative.

Available data suggests that the number of deer processed during 2006-07 (12,857) was about half that the number processed during 2005-06 (27,305) and during 2004-05. The decline in number processed has continued from 46,652 (2002-03), 31,270 (2003-04), and 31,061 (2004-05). Total number of red deer processed this season fell by about 5,000 while the number of fallow deer process fell by about 9,500 compared to last season.

The weighted average price per kilogram Hot Carcass Weight (HCW) paid to farmers for venison during the 2006-07 financial year rose around \$0.27 above prices paid during 2005-06 (from \$2.43 to \$2.70).

Ample evidence exists about the number of people selling their stock and leaving the industry. In particular, increasing numbers of processors report their difficulty in accessing stock, so it is likely that the volume of venison processed in Australia will continue to decrease although the average venison price may increase.

Velvet Antler

Velvet antler prices showed some increase during the 2005-06 season and the expectation of significant improvement in prices was realised this season. Prices for the 2006-07 season were more than double those of the previous season.

However, although the Australian Deer Horn and Co-Products Company (ADH) continued to be the major player in the Australian velvet industry (managing the collection, grading and sale of the Industry's velvet), the total volume it manages has dropped by almost 55% since the 2004-05 season.

Industry estimates suggest Australia still produces in excess of 20 tonnes of velvet annually. However, larger producers are increasingly choosing to sell their product directly to buyers, most of who are based in New Zealand. ADH only collected, graded and sold about 7.2 tonnes of fresh frozen velvet in the 2006-07 season out of an estimated total of 17 to 20 tonnes produced by the industry.

As fewer growers support ADH, the per kilogram costs of operating the Velvet Pools increases for those who remain to support the collective Pool system. It is unfortunate that the future for ADH is uncertain as it provides a stable force in the industry that ensures growers are paid appropriately for their velvet, especially in seasons when prices are depressed.

While demand and prices remain high, individual growers are likely to obtain good velvet prices. But, when they fall, without ADH they will not have an industry-based non-profit organisation on which they can rely to actively coordinate the grading and sale of their product in a way that maximises industry returns.

Implications for relevant stakeholders

Ongoing poor returns for venison and velvet antler have seen the Australian deer industry continue to contract.

Unless a range of projects that can successfully improve farmer returns continue to be implemented, the future for the Australian deer industry appears bleak.

To those who remain in the industry, the new Venison Alliance projects managed by the Rural Industries Research and Development Corporation (RIRDC) offers hope that a cooperative supply chain approach will be the boost the industry needs.

Recommendations

It is recommended that RIRDC continue to review opportunities to invest in projects designed specifically to improve farmer returns. Projects should consider domestic market development for both venison and velvet products.

Introduction

The expansion of the deer industry in Australia continues to be dependent on objective collection, interpretation and dissemination of positive market information as well as the development of marketing and production strategies based on accurate records.

Accurate statistics provide the Australian Deer Industry with supportable, objective data that can be used to plot existing trends in production price and demand for products. They also provide a basis for extrapolating future trends that give a foundation for industry research, market development and industry expansion programs that strengthen the supply base for venison marketers and velvet processors.

Objectives

To continue the improvement of deer farmer profitability through:

- 1. Ongoing maintenance and regular updating of deer industry databases.
- 2. Regular interpretation and reporting of deer industry statistics.

Methodology

Project methodology included:

- 1. Maintenance and regular updating of:
 - a. Industry contact lists
 - b. Statistics related to venison and velvet production
 - c. Contact with and provision of industry data to State and Federal government agencies
 - d. The NVAS database software.
- 2. Regular and open reporting of market and other information to industry and related agricultural interests.

Results

Venison Production

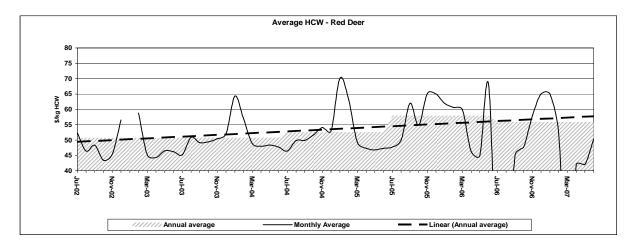
Average Carcase Weight

Trends in average carcase weight of both major species farmed in Australia (red and fallow deer) in recent season have continued this season. Graphs 1 and 2 show live weight trends of red and fallow deer processed since July 2002. The trend is to increase. Although not shown on these graphs, the trend from July 1999 to June 2002 was to a decline in average hot carcase weight (HCW).

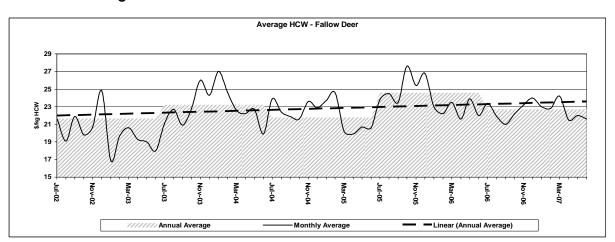
The trend change has occurred because more animals with relatively high average carcase weights have been processed (both species) since July 2005. This strongly suggests more mature, probably breeding animals have been sold for processing since July 2005.

Graph 1 shows the annual average HCW of red and red hybrid deer from July 2002 to June 2007 and the average HCW for all red and red hybrid deer carcases during that period. Graph 2 shows the annual average HCW of fallow deer processed from July 2002 to June 2007 and the average HCW for all fallow deer carcases during that period.

Graph 1 - Average HCW of Red Deer



Graph 2 - Average HCW of Fallow Deer



Average hot carcase weights from July 1999 to June 2007 for red and fallow deer are summarised in Table 1. Although the long term trends are still positive, data for the 2006-07 season suggests more small younger animals were processed as processors tried to maintain client requirements.

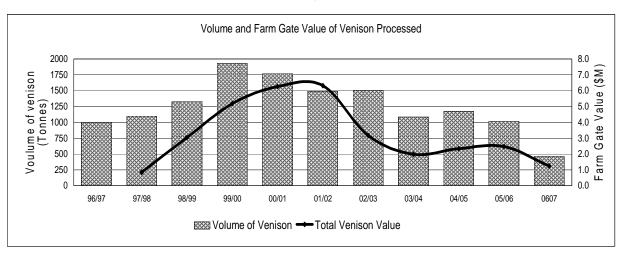
Table 1 Annual Average Hot Carcase Weight

Year	Red and Red Hybrids	Fallow
April 1998 to June 1998	53.3	22.9
July 1998 to June 1999	56.0	24.5
July 1999 to June 2000	50.7	22.6
July 2000 to June 2001	53.4	23.5
July 2001 to June 2002	55.7	24.6
July 2002 to June 2003	50.7	21.7
July 2003 to June 2004	50.2	24.4
July 2004 to June 2005	52.6	21.8
July 2005 to June 2006	58.0	24.6
July 2006 to June 2007	55.9	22.7

Value and Volume of Venison Production

Graph 3 shows the volume of venison processed since 1997 and its Farm Gate Value with no deductions for the statutory industry levy, processing and transport costs.

Graph 3 - Total Value and Volume of Industry Venison Production



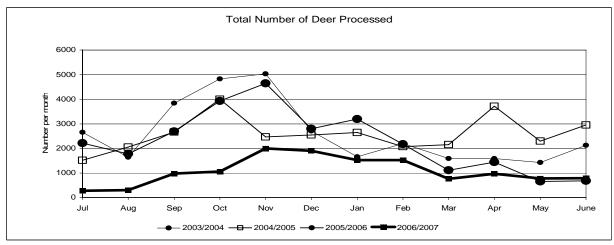
The total farm gate value of venison fell significantly during the 2006-07 season, from AUD\$2.47 million to AUD\$1.243 million. The fall in total value is directly related to the fall in the total hot carcase weight of venison processed. The total venison fell by from an estimated 1,010 tonnes in 2005-06 by about 50% to 461 tonnes in 2006-07.

Number of deer processed

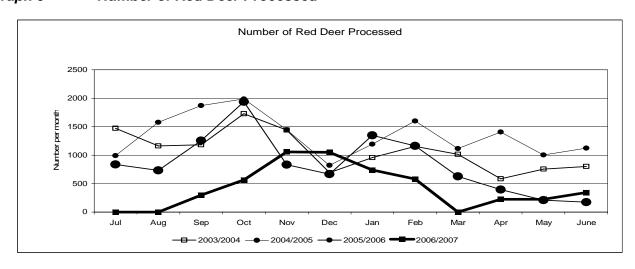
Details on the number of animals processed from April 1998 until June 2001 are determined from estimates. Data for years beginning 2001-02 are determined from records collected by RIRDC projects and data from the Levies Management Unit related to the number of deer processed and weight of venison produced.

Graphs 4, 5 and 6 compare the average number of deer processed each month for the period seasons 2003-04, 2004-05, 2005-06 and 2006-07. The pattern of the number of deer killed from 2003-04 to 2005-06 is generally consistent while data for 2006-07 clearly shows the decline in number processed. The 2006-07 pattern of processing may more clearly reflect demand in the local domestic market and the percentage of animals processed for the domestic market has increased relative to the export market.

Graph 4 - Total Number of Deer Processed



Graph 5 - Number of Red Deer Processed



Graph 6 - Number of Fallow Deer Processed

The estimated total number of deer processed for the year July 2006 to June 2007 was 12,857 compared to 27,305 for the year July 2005 to June 2006, 31,061 for the year July 2004 to June 2005 and 32,270 for the year July 2003 to June 2004.

Average Venison Price to Farmers

Graph 7 shows the weighted average venison price (HCW delivered to the abattoir) for all red and fallow deer carcases. This data does not include deductions for the statutory industry levy, processing and transport costs.

Average Venison price

6.00
5.80
5.60
5.40
5.20
5.00
4.80
4.40
9 4.20
9 4.00
1.80
2.80
2.80
2.80
2.80
2.80
2.80
1.60
1.40

Apr-98 Oct-98 Apr-99 Oct-99 Apr-00 Oct-00 Apr-01 Oct-01 Apr-02 Oct-02 Apr-03 Oct-03 Apr-04 Oct-04 Apr-05 Oct-05 Apr-06 Oct-06 Apr-07

Graph 7 - Average Venison Price (\$/kg HCW)

The continuing slight but measurable improvement in price paid to Australian deer farmers from the 2005-06 season is obvious from Graph 7.

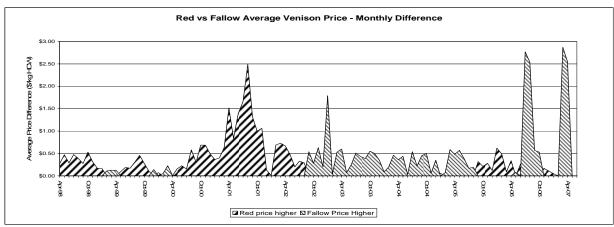
Long Term Red/Fallow Price Differences [April 1998 to June 2007]

Statistics collected since April 1998 allow a comparison of average fallow and red deer venison price statistics.

Graph 8 shows the monthly difference in average HCW price paid for red and fallow deer venison produced by the Australian deer industry. The graph clearly shows that during the export 'boom' period from April 2000 to April 2002 the average price paid for red deer venison was significantly greater than that paid for fallow deer venison (up to \$2.50/kg more at the peak in August 2001).

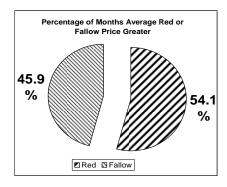
It also shows that since the 'boom' period ended in about August 2002 the average price paid for fallow deer venison has been consistently higher than the price paid for red deer venison (about \$0.50/kg HCW higher).

Graph 8 - Difference in Average Price for Red And Fallow Deer Venison



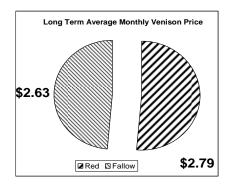
Graph 9 shows the percentage of time (April 1998 to June 2007) when the average HCW price for red deer venison and fallow deer venison were greater. Interestingly over the 9 year period of data recording the split is approximately 50:50.

Graph 9 - Percentage of Time [April 1998 to June 2007] Red or Fallow HCW Prices Greater



Graph 10 shows the long term (9 years) average venison price paid for red and fallow deer carcases processed between 1998-99 and 2006-07. Over the nine year period described, the difference in long term average price of red and fallow venison is only about \$0.16/kg HCW in favour of red deer venison.

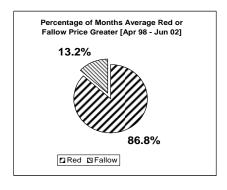
Graph 10 - Long Term [April 1998 to June 2007] Average HCW Price Paid for Red and Fallow Venison

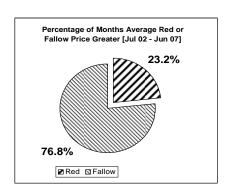


Comparison of Red/Fallow Price Differences [April 1998 to June 2002 and July 2002 to June 2007]

Since the 'Boom' venison sale price period that ended in August 2002 average venison price paid for red and fallow deer venison are similar although the average price paid for fallow venison is consistently higher than that paid for red deer venison as demonstrated in graphs below.

Graph 11 - Percentage of Time Red or Fallow HCW Prices were Greater

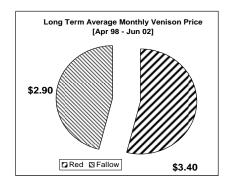


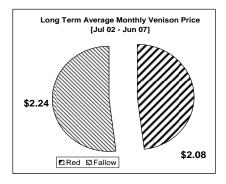


These charts show how the strong export market until mid 2002 more strongly influenced the price of red deer venison than it did fallow deer venison. Graph 7 shows that during this export boom, both fallow and red deer venison price increased but the influence of price was stronger for red deer venison.

Graph 12 charts show that between 1998-99 and 2006-07 the difference average venison price paid for red and fallow deer carcases was about \$1.50/kg HCW in favour of red deer. Since July 2002 and until June 2007 however, the difference in average venison price paid for red and fallow deer carcases was about \$0.16/kg HCW in favour of fallow.

Graph 12 - Long Term [July 2002 to June 2007] Average HCW Price Paid for Red and Fallow Venison





Since June 2002 the average price of red deer carcases has fallen by about 40% while the average price of fallow deer has fallen by about 25%.

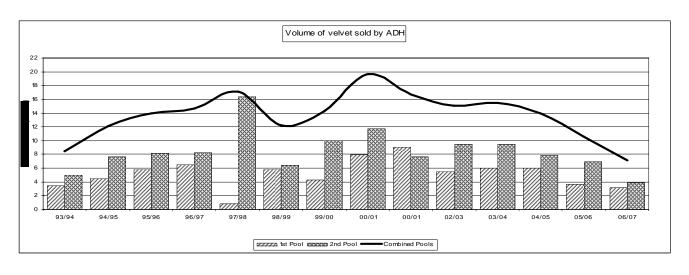
Velvet Antler Production

Velvet Production

Until the 2004-05 season, the Australian Deer Horn and Co Products Company (ADH) managed an increasing percentage of the Australian Industry's velvet. It is estimated that ADH collected, graded and sold at least 60% of velvet antler (deer horn) produced in Australia.

Since the 2004-05 season, the volume of velvet managed by ADH has declined significantly to an estimated 35% of total production in the 2006-07 season.

Graph 13 - Volume of Velvet Sold by ADH

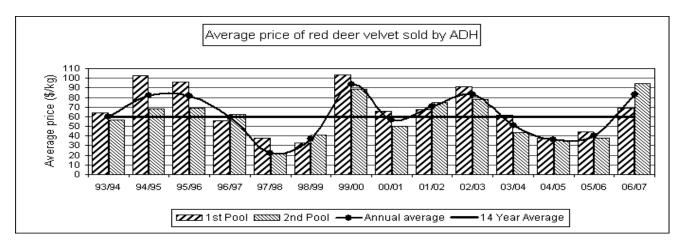


The majority of velvet sold by ADH continues to be provided by red deer, although some limited interest in fallow deer and elk velvet persists.

Velvet Antler Prices

Graph 14 shows how the value of velvet antler sold by ADH has changed in the fourteen years beginning with the 1993-94 season. The recent reduction of the New Zealand stag herd combined with an increased Korean demand saw average prices for velvet in the 2006-07 season double prices for the previous season.

Graph 14 - Value of Velvet Sold by ADH



Graph 14 shows that the average value of velvet sold at the first ADH pool in most years is greater than the average value of velvet sold at the second pool each year. The fourteen-season weighted average price for velvet antler sold by ADH is just under \$60.00 at about \$58.80 per kilogram green weight.

The average price for velvet in the 2006-07 season (\$82.68/kg) was similar to the price received in the 2002-03 season of \$82.96/kg (second best price average)) and only a little less than the best ever average of \$93.41/kg received in the 2999/00 season.

Guide to Prices Received by ADH for the 2005-2006 Pools

Table 2 November 2006 Pool Prices

Grades	Price Range (\$AUD)
ELK	No product
Super A	\$75 to \$80
Α	\$65 to \$70
В	\$60 to \$65
С	\$55 to \$60
D	\$45 to \$50
Spiker	\$40 to \$50
Taiwanese	\$50 to \$60
Regrowth	\$50
Overgrown	\$40 to \$55
Damaged	\$25 to \$55

Table 4 Season Average Velvet Prices

2005-06 Season

Average Price		Average Value	
All Velvet	\$37.58	All velvet	\$40.25
Korean Red	\$41.65	Korean Red	\$43.99
Other Red	\$33.00	Other Red	\$32.35
All Elk	\$45.19	All Elk	\$40.84
Fallow	\$25.71	Fallow	\$31.09

2006-07 Season

Average Price		Average Value	
All Velvet	\$65.80	All velvet	\$80.87
Korean Red	\$84.88	Korean Red	\$81.23
Other Red	\$58.25	Other Red	\$60.26
All Elk	\$90.00	All Elk	\$90.00
Fallow	\$33.17	Fallow	\$13.80

Table 3 February 2007 Pool Prices

Grades	Price Range (\$AUD)
ELK	\$30 to \$90
Super A	\$100 to \$120
Α	\$90 to \$128
В	\$80 to \$115
С	\$75 to \$100
D	\$60 to \$89
Spiker	\$65 to \$110
Taiwanese	\$60 to \$65
Regrowth	\$36 to \$74
Overgrown	\$45 to \$90
Damaged	\$35 to \$100
Manufacturing	\$10 to \$112
Fallow	\$5 to \$10

Discussion

Venison

Farm Gate Value of Venison

The total farm gate value of venison produced from 1998-99 to 2006-07 is shown in Tables 5 to 8.

Table 5 Total Value of Venison

Year	Total Value	Average Value
		(\$/kg HCW)
1998-99	\$3.04M	\$2.30
1999-00	\$5.18M	\$2.69
2001-02	\$6.25M	\$3.54
2001-02	\$6.32M	\$4.24
2002-03	\$3.17M	\$2.11
2003-04	\$1.99M	\$1.81
2004-05	\$2.34M	\$1.99
2005-06	\$2.47M	\$2.43
2006-07	\$1.243M	\$2.70

Table 7 Value of Red Deer Venison

Year	Total Value	Average Value
		(\$/kg HCW)
1998-99	\$1.72M	\$2.44
1999-00	\$2.48M	\$2.71
2001-02	\$3.85M	\$3.79
2001-02	\$3.93M	\$4.70
2002-03	\$1.68M	\$2.03
2003-04	\$1.09M	\$1.67
2004-05	\$1.62M	\$1.91
2005-06	\$1.51M	\$2.55
2006-07	\$0.77M	\$2.70

Table 6 Value of Fallow Deer Venison

Year	Total Value	Average Value
		(\$/kg HCW)
1998-99	\$1.17M	\$2.16
1999-00	\$2.27M	\$2.64
2001-02	\$2.19M	\$3.18
2001-02	\$2.28M	\$3.69
2002-03	\$1.40M	\$2.22
2003-04	\$0.90M	\$2.07
2004-05	\$0.71M	\$2.20
2005-06	\$0.96M	\$2.28
2006-07	\$0.47M	\$2.69

Table 8 Value of Rusa Deer Venison

Year	Total Value	Average	
		Value	
		(\$/kg HCW)	
1998-99	\$0.15M	\$1.91	
1999-00	\$0.46M	\$2.84	
2001-02	\$0.22M	\$3.30	
2001-02	\$0.11M	\$3.19	
2002-03	\$0.08M	\$1.83	
2003-04	No data available		
2004-05	No data available		
2005-06	No data available		
2006-07	No data available		

Venison Production Summary

A summary of Australia's venison production from 1998-99 to 2006-07 and the estimated value in 1998-99 is shown is shown in Tables 9 to 12 below.

Table 9 Total Volume of Venison Processed

Year	Total Number	Total HCW (Tonnes)	Average HCW (Kg)
1998-99	36,652	1,323	35.8
1999-00	60,165	1,928.1	32.0
2001-02	50,131	1,767.8	35.3
2001-02	41,223	1,489.4	36.1
2002-03	46,652	1,505.5	32.3
2003-04	30,850	1,086.8	35.2
2004-05	31,061	1,174.1	37.8
2005-06	27,305	1,011.8	37.1
2006-07	12,857	461.1	35.9

Table 10 Red Deer Processed

Year	Total Number	Total HCW (Tonnes)	Average HCW (Kgs)
1998-99	12,642	708	56.0
1999-00	18,042	915	50.7
2001-02	18,975	1,014	53.4
2001-02	15,018	836	55.7
2002-03	16,334	829	50.7
2003-04	12,953	650	50.2
2004-05	16,141	849	52.6
2005-06	10,183	591	58.0
2006-07	5,098	285	58.9

Table 11 Fallow Deer Processed

Year	Total Number	Total HCW (Tonnes)	Average HCW (Kgs)
1998-99	22,128	542	24.5
1999-00	37,964	859	22.6
2001-02	29,207	686	23.5
2001-02	25,171	619	24.6
2002-03	29,133	632	21.7
2003-04	17,896	437	24.4
2004-05	14,920	325	21.8
2005-06	17,123	421	24.6
2006-07	7,758	176	22.7

Table 12 Rusa Deer Processed

Year	Total Number	Total HCW (Tonnes)	Average HCW (Kgs)
1998-99	1,883	77	41.1
1999-00	4,160	154	37.1
2001-02	1,949	68	35.0
2001-02	1,033	35	33.5
2002-03	1,185	45	38.3
2003-04	No data available		
2004-05	No data available		
2005-06	No data available		
2006-07	No data available		

Venison Price Differential and Carcase Weight Distribution

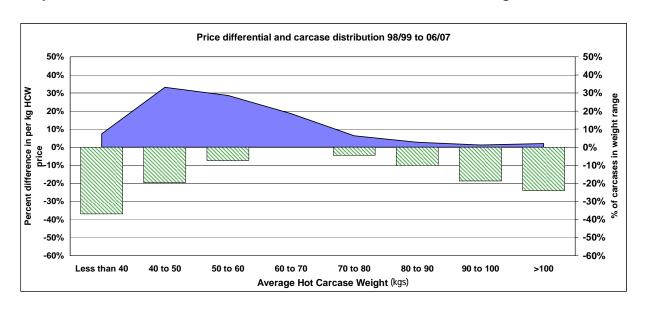
Differences in average price per kilogram paid for venison in different weight ranges have been reported previously.

Red Deer – Average of all seasons from 1998-99 to 2006-07

The effect of data collected for July 2006 to June 2007 on an analysis of the average effect of carcase weight of red deer processed between April 1998 and June 2007 is minimal. Graph 15 shows that there is a significant reduction in average carcase price for red deer carcases that fall outside the 'ideal' weight range of 55 to 65 kg HCW.

A similar consideration of weight range the distribution for red deer carcases shows the majority of red deer processed have been underweight. Graph 15 shows why the majority of red deer carcases have been unable to obtain ideal returns.

Graph 15 - Red Deer - Venison Price Differential and Carcase Weight Distribution

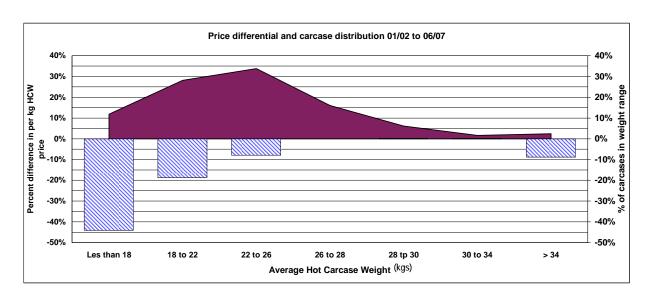


Fallow – Average of all seasons from 1998-99 to 2006-07

An analysis of data for fallow deer processed between April 1998 and June 2007 shows a similar situation to that observed for red deer. That is a significant reduction in average carcase price for fallow carcases that fall outside the 'ideal' weight range of 26 to 28 kg HCW.

A similar consideration of weight range distribution for fallow deer carcases shows the majority of fallow deer processed have been underweight. Graph 16 shows why the majority of fallow deer carcases have not provided farmers with ideal returns.

Graph 16 - Fallow Deer - Venison Price Differential and Carcase Weight Distribution



14

Red Deer - Difference in average for each season from 2001-02 to 2006-07

secw often

From the 2001-02 to the 2004-05 seasons the percentage of small animals (less than 60 kg HCW) tended to increase. The number of small animals sold probably reflects the relatively high venison price during the 2001-02 and 2002-03 seasons and owners preparedness to sell while the price was good. The high number in the next two seasons reflects the need for owners to sell animals during the drought. During that period the carcase price of animals relative to the ideal carcase weight of 55 to 65 kgs remained similar. However during the 2004-05 season price paid indicated a change in demand preference for heavier carcase weight animals. The lessening of discounts for heavier carcase weights continued during the 2005-06 and 2006-07 seasons. The percentage of red deer carcases in heavier weight ranges increased during 2005-06 but fell again in 2006-07. It is likely that kill weights initially reflect an increase in the number of adult (possibly breeding stock) animals processed and more lately an increased kill of smaller animals to maintain client requirements.

m,

900

40%

30%

20%

10% 0%

-10%

-20%

-30%

-50%

>100

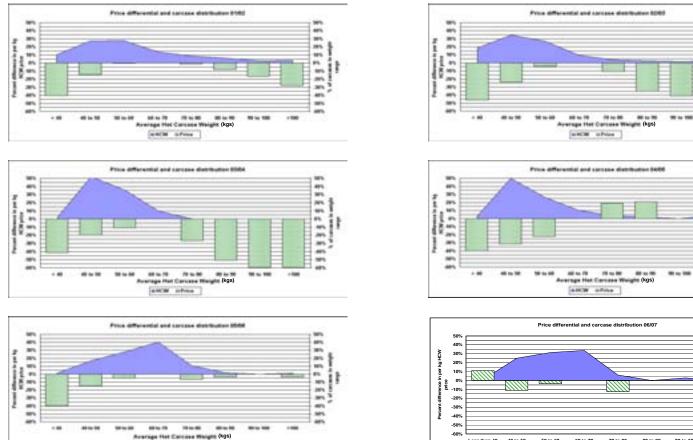
60 to 70

70 to 80

Average Hot Carcase Weight (kgs)

80 to 90

Graph 17 -Red - Venison Price Differential and Carcase Weight Distribution 00/01 to 05/06

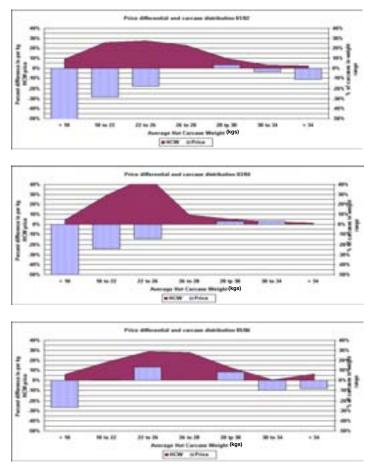


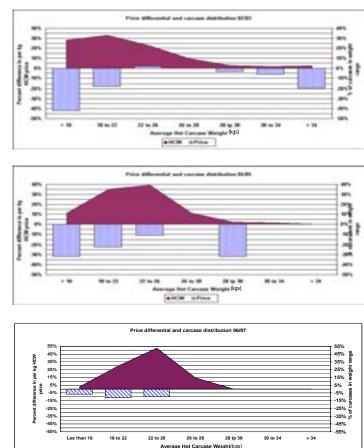
Fallow Deer - Difference in average for each season from 2001-02 to 2006-07

From the 2001-02 to the 2002-03 seasons the percentage of small animals (less than 23 kg HCW) tended to increase. The number of small animals sold probably reflects the relatively high venison price during the 2001-02 and 2002-03 seasons and owners preparedness to sell while the price was good. However since the 2002-03 season the percentage of fallow deer carcases in very low weight ranges has tended to a marginal decrease.

In a similar manner to red deer, in the 2005-06 and 2006-07 seasons the percentage of fallow deer carcases in the 'ideal' weight range of 26 to 28 kgs improved significantly while price discounts for carcases different to the ideal HCW showed no consistent change. It is more likely that the information reflects an increase in the number of adult (possibly breeding stock) animals that have been permanently removed from the national herd combined with an improvement in average quality of animals processed for domestic markets.

Graph 18 - Fallow - Venison Price Differential and Carcase Weight Distribution 2001-02 to 2006-07





Velvet antler

Total industry velvet production in 2006-07 (estimated at about 20 tonnes) was similar to that estimated for the 2005-06 season.

Total velvet production managed by ADH&CP in 2006-07 was about 7.2 tonnes with a total value of approximately \$595,000. In the 2005-06 season ADH&CP managed about 10.5 tonnes with a total value of approximately \$420,000.

These figures dramatically demonstrate both the reduction in velvet volume handled by ADH&CP as well as the dramatic increase in value between the seasons.

Implications

Ongoing poor returns for venison and velvet antler have seen the Australian deer industry continue to contract.

Unless a range of projects that can successfully improve farmer returns continue to be implemented, the future for the Australian deer industry appears bleak.

Recommendations

That RIRDC continue to review opportunities to invest in projects designed specifically to improve farmer returns. Projects should consider domestic market development for both venison and velvet products.

Communications Strategy

Summary information provided in this report will be presented to the 2007 National Deer Industry AGM.

This RIRDC report will be provided directly to the secretary of each DIAA branch and affiliated organisations and will be available from RIRDC for individual members of industry and the public.

References

OANDA Corporation (2003) *Foreign Exchange Currency Converter*. Accessed at: www.oanda.com/converter/classic

Tuckwell, C.D. (1998 to 2001) *Australian Deer Farming Manuals*. RIRDC Publication Nos. 01/058, 98/013, 98/029, 98/030, 98/051, 98/058.

Tuckwell, C.D. (1999) *Development of the Deer Industry as a Major Australian Livestock Industry*. RIRDC Publication No. 99/92 ISBN: 0 642 57922 9.

Tuckwell, C.D. (2000) *Deer Quality Assurance, Strategic Alliances and Industry Development*. RIRDC Publication No. 01/120 ISBN: 0 642 58342 0.

Tuckwell, C.D. (2002) *Production and Markets for Venison, Velvet Antler and Co-products in 2001-02*. RIRDC Publication No. 02/128 ISBN: 0 642 58527 X.

Tuckwell, C.D. (2003) *The Deer Faming Handbook*. RIRDC Publication No. 03/029 ISBN: 0 58597 0.

Tuckwell, C.D. (2005) Dissemination of results of research projects. RIRDC Publication No W05/16.