

Household Sizes and Composition

Potential	Number in each Age Category and (sd)					Av. no.
	< 8	8-14	15-22	23-65	>65	
High - Low	1.6 (1.7)	1.2 (1.3)	0.9 (1.4)	2.5 (2.7)	0.2 (0.5)	6.4 (4.0)
High - Med	0.8 (1.1)	1.1 (1.3)	0.8 (1.4)	1.9 (1.1)	0.3 (0.6)	4.9 (2.8)
Med - High	1.3 (1.4)	0.9 (1.1)	1.0 (1.0)	2.4 (1.6)	0.2 (0.5)	5.6 (3.0)
Med - Low	2.0 (1.7)	1.1 (1.3)	1.0 (1.4)	2.2 (1.0)	0.1 (0.2)	6.2 (3.7)
Med - Med	1.4 (1.6)	1.2 (1.4)	1.2 (1.5)	2.4 (1.6)	0.2 (0.5)	6.3 (3.3)
Average	1.2 (1.5)	1.1 (1.3)	1.0 (1.4)	2.2 (1.6)	0.2 (0.5)	5.7 (3.2)

Average Land Holding Size, Number of Plots, Years Since it's Establishment.

Potential	n	Total land (acres)	No. plots	Years est.	Acreage same as at est. (%)
High - Low	113	13.4 (15.0)	1.7 (1.2)	16.8 (11.8)	62.8
High - Med	379	3.3 (4.0)	1.8 (6.4)	22.2 (12.2)	75.1
Med - High	150	9.1 (13.0)	2.0 (1.2)	24.2 (14.8)	68.5
Med - Low	43	18.8 (23.5)	1.6 (0.9)	11.8 (8.0)	57.1
Med - Med	362	5.3 (9.4)	1.8 (6.6)	14.7 (7.0)	87.7
Total/Av.	1047	6.6 (11.9)	1.8 (5.4)	18.9 (11.7)	70.2

Cropping Seasons, Acreage of Main Food/Cash Crops

Potential	Cropping Season (%)		n	Acreage of Crops (sd)					
	One	Two		Coffee	Tea	Napier	Maize	Beans	
High – Low	22.5	74.5	195	0.0 (0)	0.2 (0.7)	0.2 (0.6)	0.9 (1.6)	0.3 (0.5)	
High – Med	0	100	173	0.6 (0.9)	0.2 (0.6)	0.4 (0.6)	0.6 (1.0)	0.2 (0.6)	
Med – High	12.9	87.1	290	0.3 (0.7)	0.0 (0.1)	0.2 (0.6)	0.8 (1.3)	0.7 (1.2)	
Med - Low	22.5	77.5	182	0.5 (1.3)	0.0 (0)	0.2 (0.9)	1.0 (1.2)	0.8 (0.9)	
Med – Med	45.5	54.6	138	0.0 (0)	0.0 (0)	0.1 (0.4)	1.4 (2.6)	1.1 (2.5)	
Average			1015	0.3 (0.8)	0.1 (0.4)	0.3 (1.5)	0.9 (1.6)	0.6 (1.3)	

Cattle Inventory and Mean Numbers/(sd)

Potential	Local		Crosses		Grade	
	n	Mean (sd)	n	Mean (sd)	n	Mean (sd)
High - Low	1	3.0 (3.0)	42	4.5 (3.4)	53	6.1 (5.4)
High - Med	9	1.7 (1.0)	92	2.1 (1.3)	191	2.1 (1.3)
Med - High	72	3.4 (2.8)	12	2.8 (2.0)	20	6.4 (14.6)
Med - Low	27	18.4 (13.5)	9	9.6 (4.4)	0	0
Med - Med	20	6.7 (9.2)	104	4.7 (5.6)	103	4.1 (4.8)
Average	129	6.9 (9.6)	259	3.8 (4.3)	367	3.5 (5.0)

Main Feeding System Practised (%) by Land use Zone - Now/Ago

Potential	Grazing	Semi Zero	Stall Feeding
High - Low	23/26	71/69	6/4
High - Med	7/21	24/18	69/61
Med - High	37/51	32/35	31/14
Med - Low	97/100	3/-	-/-
Med - Med	32/52	49/30	19/17
Overall	25/39	38/30	37/31

Predominant Dairy Breeds in the Herds (%)

Potential	Friesian	Ayrshire	Jersey	Guernsey	Bos Indicus
High - Low	68	27	2	1	2
High - Med	42	18	4	25	11
Med - High	17	6	1	2	74
Med - Low	-	-	-	-	100
Med - Med	46	23	3	9	19
Overall	42	18	3	12	25

Production Performance

Potential	Calving Interval (days)	Lactation Length (days)	Milk Prod. (litres)	Age at First Calving (mths.)
High - Low	519 (122)	669 (282)	5.1 (2.9)	31 (4)
High - Med	594 (259)	259 (364)	4.7 (2.3)	32 (6)
Med - High	621 (250)	541 (326)	3.0 (3.4)	38 (8)
Med - Low	519 (128)	593 (309)	0.9 (0.6)	40 (10)
Med - Med	522 (216)	447 (190)	4.8 (2.7)	33 (7)
Overall	560 (223)	560 (315)	4.4 (2.8)	33 (7)

Breeding and Source of Service (%)

Potential	Pregnancy rate	Source of service				
		Natural	AI			
		Bull	GOK	Coop.	Private	Others
High - Low	52	78	2	10	10	0
High - Med	43	57	8	17	17	1
Med - High	41	58	8	3	26	5
Med - Low	52	100	0	0	0	0
Med - Med	53	70	9	3	18	0
Overall	48	73	5	7	14	

Quantities of Milk Consumed by Household, Amounts Sold and Price per Litre

Potential	Amt. Consumed (litres)	Amt. Sold (litres)	Price per litre (KSh)
High – Low	2.7 (1.6)	9.0 (6.3)	13.5 (2.4)
High – Med	2.0 (0.9)	4.6 (3.9)	12.5 (9.2)
Med – High	1.6 (0.7)	5.0 (5.7)	23.6 (7.4)
Med – Low	2.4 (1.1)	4.0 (2.4)	13.6 (1.8)
Med – Med	2.2 (1.0)	7.0 (9.8)	12.5 (2.2)
Overall	2.2 (1.1)	6.3 (6.5)	13.7 (4.3)

Primary Milk Sales Outlets (%)

Potential	Individuals	Hotels/Shops	Traders	Coop/SHG.	Processors	KCC
High - Low	9	11	20	10	20	8
High - Med	42	11	28	17	0	1
Med - High	63	15	0	26	0	0
Med - Low	75	25	0	0	0	0
Med - Med	49	8	24	18	6	11
Overall	48	14	14	14	5	4

Main Diseases Reported (%)

Potential	ECF	Anaplasmosis	Mastitis	Worms	Respiratory
High - Low	33	39	2	4	10
High - Med	35	16	13	8	7
Med - High	51	6	3	8	12
Med - Low	74	12	0	3	0
Med - Med	56	12	7	7	6
Overall	50	17	5	6	7

Household Incomes for Dairy Household

Potential	<2,500	2,500-5,000	5,001-10,000	10,001-20,000	20,001-30,000	>30,000
High - Low	17	21	31	21	4	6
High - Med	11	42	30	11	3	4
Med - High	24	35	17	12	6	6
Med - Low	3	18	38	23	9	9
Med - Med	30	33	22	11	3	2
Overall	17	30	28	16	5	5

Household Incomes for Non-Agricultural Household

Potential	<2,500	2,500-5,000	5,001-10,000	10,001-20,000	20,001-30,000	>30,000
High - Low	0	0	0	0	0	0
High - Med	0	0	0	100	0	0
Med - High	12	19	26	23	8	12
Med - Low	23	23	46	6	3	0
Med - Med	54	25	8	4	4	4
Overall	18	13	16	27	3	3

Household Incomes for Non-Dairy Household

Potential	<2,500	2,500-5,000	5,001-10,000	10,001-20,000	20,001-30,000	>30,000
High - Low	54	0	31	15	0	0
High - Med	37	44	10	2	0	0
Med - High	27	44	27	3	0	0
Med - Low	14	43	29	0	0	14
Med - Med	53	30	5	1	1	1
Overall	37	32	20	4	0	3

Appendix 4 List of Supervisors

International Livestock Res. Institute (ILRI)

William Thorpe	- Field Manager
Steven J. Staal	- Agricultural Economist
Amos Omore	- Research Officer
Matthew Kenyanjui	- Research Assistant
David Njubi	- Data Analyst
Liston Njoroge	- Research Assistant
Isabelle Baltenweck	- Graduate Fellow

Kenya Agric. Res. Institute (KARI - Muguga)

Mark O. Owango	- Asst. Project Manager
Kinyua Muriuki	- Technical Officer
Francis Musembi	- Research Officer
Bernard Lukuyu	- T.O/Graduate Fellow
Omolo Bwana	- Technical Officer/Farm Manager

Ministry of Agriculture

H. G. Muriuki	- Project Manager
G. Gichungu	- Livestock Prod. Officer
J. Mugambi	- PDLP Nairobi
J. Mutunga	- DLPO Nakuru
J. Mbaranya	- DLPO Nyandarua
M. Wachira	- DLPO Machakos
W. Mungai	- DLPO Murang'a
J. Lenemeria	- former DLPO Narok
D. Mwangi	- DLPO Kirinyaga
Gacheche M.	- Nairobi
Josephine W. Kirui	- Nakuru
D. K. Kigera	- Narok
G. O. Angugo	- Nyandarua
P. Munyua	- Kirinyaga
J. Ngugi	- Maragua
Ngie M./Njihia P.	- Machakos
S. Waithaka	- Murang'a

Appendix 5 List of Enumerators

Name	Sub-location(s)	District
S. M. Mwazi	Ngata/Njoro	Nakuru
W. Kirii	Ndundori	Nakuru
Lucy Nyota	Keringeti	Nakuru
N. Njoroge	Njoro	Nakuru
S. K. Kinyua	Ndoswa/Marioshoni	Nakuru
J. N. Karumba	Kambiriria/Turi	Nakuru
H. Khakula	Shawa	Nakuru
S. Tanui	OI-Rongai/Kampi Moto	Nakuru
S.Kimani	Gichobo	Nakuru
Julius N. Kuria	Siapei/Likia Teret	Nakuru
G. G. Kemoli	Lenginet/Banita	Nakuru
F. K. Njunge	Munanda/Kirima	Nakuru
M. Mburu	Kabatini/Wendo	Nakuru
S. K. Kinyanjui	Township/Olopito	Narok
M. N. Kabui	Sakutiek/Enaibor Ajijik	Narok
J.Torome	Ntulele	Narok
J. C. Njoroge	Kanjuiiri/Mawingo	Nyandarua
G. M. Githaiga	Gathara/ Karati	Nyandarua
P. K. Muturi	Gitwe/Bamboo	Nyandarua
J. G. Gichuki	Kahuru Muruaki	Nyandarua
I. N. Mwangi	Rurii	Nyandarua
S. Gicheru	Ruiru	Nyandarua
Lucy M. Njoka	Thirikwa/Nyangeni	Kirinyaga
M. Macharia	Mukui/Nguguini	Kirinyaga
J. M. Maina	Kagumo/Kariru	Kirinyaga
Nancy Kibugi	Gitaku/Kianjege	Kirinyaga
J. Wainaina	Mirichi/Ngiriambu	Kirinyaga
A. Muthoka	Kithangaini/Ithini	Machakos
J. N. Kibunja	Vyulya/Mithini/Kamwala	Machakos
J. K. Mbuvi	Kiboko	Machakos
J. Mulembu	Isinga/lia-Itune	Machakos
J. Nyamasyo	Sengani/Kambusu	Machakos
K.Mwaura	Kariua	Maragua
B. K. Mungai	Githunguri/Githuya/Kariti	Maragua
S. K. Kagiri	Kimathi/Nyakihai	Murang'a
S. J. K. Thige	Kahuti/Gatheru	Murang'a
F. N. Kuguru	Kiria/Kahuro	Murang'a
J. N. Kiragu	Ichichi/Nyakahura	Murang'a
S. O. Ayuko	Kairo/Gacharageini	Murang'a
J. D. Kamau	Gikui/Gacharaigu	Murang'a
P. Imodoi	Roysambu	Nairobi
Agnes Rutunu	Kasarani	Nairobi
Rebecca Ariko	Kibera/Golf Course	Nairobi
E. Nyongesa	Mugumoini	Nairobi
Mary Ambatsa	N. West/Mugumoini	Nairobi
Vitalis. Ounga	Kahawa North	Nairobi