

5.2.1 Forage Production and Feeding Situation

The following tables summarise the use of different types of feedstuff, their source (on farm production or purchase), preferences of use and sufficiency of feed supplies. Detailed summaries with individual and total numbers of respondents are listed in Appendix 5.

5.2.1.1 Types of forages used

The following table summarises the percentages of farmers using the feedstuffs listed, specified for each agro-ecological region. Wheat straw was the most commonly used feed from farm production in all regions and Maize Straw is also widely used except in the Centre Region where little Maize is grown. Shaftal and Lucerne are the most popular grown and used fodder crops. Shaftal as annual fodder crop has a relatively higher importance in Eastern Afghanistan while in the other regions Lucerne is the more important fodder crop. Hay from natural grassland has the greatest importance in the Central Highlands. Maize is the most important farm produced concentrate in all regions except in the West where Barley is more important as concentrate feed.

A large proportion of farmers in all regions purchase both concentrates and roughage for feeding their livestock. In addition to their own production approximately 40 percent of the interviewed farmers still have to purchase additional straw to feed their livestock which by quantity is most likely the most important purchased feedstuff. Although not specifically asked in the survey one can assume that the Shaftal and Lucerne were purchased for feeding as fresh fodder crop. Many Afghan farmers also purchase concentrates with Cotton seed cake, Wheat Bran, Maize and Barley in the North and West being the more commonly purchased feed types.



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Table 10 Types of forages used in the agro-ecological region (percentage of respondents)

	Agro-ecological Region				
	East	Centre-East	Centre	North	West
Own Production					
Wheat Straw	71.7	88.8	67.5	75.8	74.8
Shaftal*)	64.5	64.4	31.1	8.0	48.2
Lucerne	10.8	66.3	49.1	22.1	54.0
Maize Straw	56.6	48.3	9.0	15.9	21.2
Maize	37.5	52.2	8.5	13.0	18.0
Hay	5.2	3.9	38.2	25.4	27.0
Wheat Bran	7.2	10.2	5.2	27.1	5.8
Barley	0.4	1.5	3.3	2.1	19.1
Sorghum	2.4	2.4	0.9	7.7	0.0
Millet	0.0	6.3	2.8	0.0	0.7
Cotton Seed Cake	0.4	2.9	1.9	3.5	1.1
Purchased Feed					
Cotton Seed Cake	57.0	86.3	52.4	83.2	6.1
Wheat Straw	40.6	35.1	42.9	44.2	38.8
Wheat Bran	21.1	82.0	36.8	38.3	6.5
Lucerne	6.8	45.9	34.4	16.2	24.5
Barley	8.0	7.3	6.1	26.8	77.6
Maize	15.1	33.2	26.9	21.5	7.6
Shaftal	10.0	37.6	23.6	9.7	14.4
Maize Straw	28.3	5.9	2.4	5.9	1.8
Hay	3.2	3.4	10.4	10.9	2.2
Sorghum	0.4	5.4	0.9	3.5	0.7
Millet	1.2	2.9	0.5	0.3	0.7
*Persian Clover, <i>Trifolium resupinatum</i> , but <i>Trifolium clusii</i> (annual Strawberry clover, less productive) is also called 'Shaftal'.					

5.2.1.2 Preferences for feeds and feed supply

In addition to the actual use of feedstuffs the interviewed farmers were also asked for their most preferred feedstuffs, either purchased or produced on their own farm. In addition to the pre-defined types of feedstuffs of the previous chapter a number of other categories were hereby mentioned by the interviewed farmers. The frequency of answers was used to establish a list of the most preferred feedstuffs in the different Agro-ecological Regions.

Table 11 Preferences for purchased feeds (percentage of respondents)

	Agro-ecological region				
	East	Centre-East	Centre	North	West
Forage	4.7	26.6	27.7	8.7	32.0
Lucerne	1.1	10.9	12.5	3.0	7.0
Persian clover	3.4	7.1	8.9	1.4	7.2
Hay	0.3	3.7	2.1	2.7	12.9
Green Plants		4.6	1.4	0.2	4.5
Mountain Grass		0.3	2.8	1.2	0.4
Various Crop Aftermath	27.3	11.2	19.9	10.6	17.6
Wheat Straw	17.3	8.9	12.4	5.1	14.4
Mung Bean Straw	0.8			5.3	0.3
Rice Straw	0.8	0.2	4.9	0.2	
Maize Husks	5.9				
Barley Straw		0.1	1.7		2.9
Maize Stalks		2.0	0.9		
Maize Aftermath	2.4	0.1			
Concentrates	67.7	59.4	49.5	75.9	47.6
Oil Cakes	10.3	21.3	15.0	35.5	5.6
Barley	10.3	2.2	7.3	26.5	30.2
Vetch (<i>Lathyrus sativus</i>)	11.8	9.3	9.1		
Maize	9.4	4.4	7.9	2.8	5.0
Wheat Bran	0.7	7.8	8.5	7.4	0.9
Wheat	14.5	0.3	0.2	0.4	1.4
Grains		5.8	0.6		3.6
Bread		5.6	0.2	2.8	0.3
Soybean	8.2				
Mung Bean (<i>Vigna radiata</i>)		2.8	0.6		0.5
Flour	2.4			0.3	0.2
Others	0.3	2.8	2.9	4.9	2.8

Clearly, farmers prefer concentrates when buying feeds. Oil cakes are the most preferred concentrate feed, but that may be simply a reflection of availability and price. Purchase of Shaftal and Lucerne is especially popular in the Centre and Centre-East regions, presumably as winter fodder.

Table 12 Preferences for on-farm feeds (percentage of respondents)					
	Agro-ecological region				
	East	Centre-East	Centre	North	West
Forage	33.0	55.5	66.3	24.9	43.0
Persian clover	27.8	21.9	18.0	2.2	7.7
Lucerne	1.2	21.7	28.5	4.9	10.1
Mountain Grass	0.3	1.1	14.2	8.4	7.3
Green Plants	3.1	3.6	2.5	1.4	12.9
Hay	0.2	4.8	3.0	6.4	4.8
Weeds	0.3	2.3			0.1
Green Barley	0.2	0.2		1.5	
Crop Aftermath	53.7	23.2	29.3	35.8	18.8
Wheat Straw	28.9	21.2	26.8	22.3	17.9
Maize Husks	12.4		0.2		0.9
Maize Aftermath	8.1	0.5	0.2		
Rice Straw	3.9	0.1	2.0	0.9	
Khasha (crop aftermath)				6.1	
Mung Bean Straw	0.1			5.1	0.1
Crop Aftermath		0.7		1.5	
Tree leaves	0.3	0.8			
Concentrates	9.8	19.4	4.5	30.2	37.7
Maize	5.9	10.9	1.7	5.1	6.5
Barley	1.0	0.2	1.5	13.3	11.6
Grains	0.7	3.5			10.2
Wheat	0.3			2.0	8.3
Sorghum	1.4			5.3	0.2
Oil Cakes		2.5	0.7	1.3	0.2
Wheat Bran	0.5	0.6	0.7	1.9	0.6
Cotton Seed		1.7			
Barley flour				1.3	
Others	3.5	1.9	0.0	9.1	0.5

In terms of cultivated forage production, there seems to be considerable interest in Persian clover and Lucerne. Especially Persian clover can be integrated well into crop rotations and should be considered a priority in livestock development programs.

Noteworthy is that the preferences expressed for 'Mountain Grass' (harvested rangeland vegetation) corresponds with higher availability of this type of forage in higher elevation sites. At the same time, this regional differentiation reflects on the state of rangelands. There is simply no surplus to be harvested on rangelands in most of Afghanistan.

Table 13 Feed supplies (percentage of respondents)

	Agro-ecological region				
	East	Centre-East	Centre	North	West
Enough Feed 2002*	44.6	23.9	17.0	3.5	5.0
Enough Feed 2003	45.4	26.8	25.5	47.8	41.7
Pasture Sufficient 2002	16.3	6.3	29.7	11.5	6.8
Pasture Sufficient 2003	17.9	5.4	29.7	36.6	34.2
Purchased Supplements 2002	73.7	93.7	85.8	57.2	61.5
Purchased Supplements 2003	72.9	86.8	80.7	28.9	47.1
Produced Supplements 2002	25.5	15.1	9.4	5.0	2.2
Produced Supplements 2003	27.1	20.0	12.3	14.5	15.8
Feed Prices Increased 2002	80.9	95.1	87.3	96.2	85.3
Feed Prices Increased 2003	74.5	94.1	73.6	17.1	43.5

* For all subjects percentage of respondents

These answers provide a clear indication that in 2003 the drought effects began to subside. These data are valuable as baseline data for future programs in drought preparedness.

Table 14 Length of feeding periods (months)

	Agro-ecological Region				
	East	Centre-East	Centre	North	West
Pasture grazing	8.76	6.86	6.01	5.90	7.44
Stubble period	2.16	2.77	2.05	3.06	2.34
Supplementation period	6.64	8.22	6.29	4.15	4.45

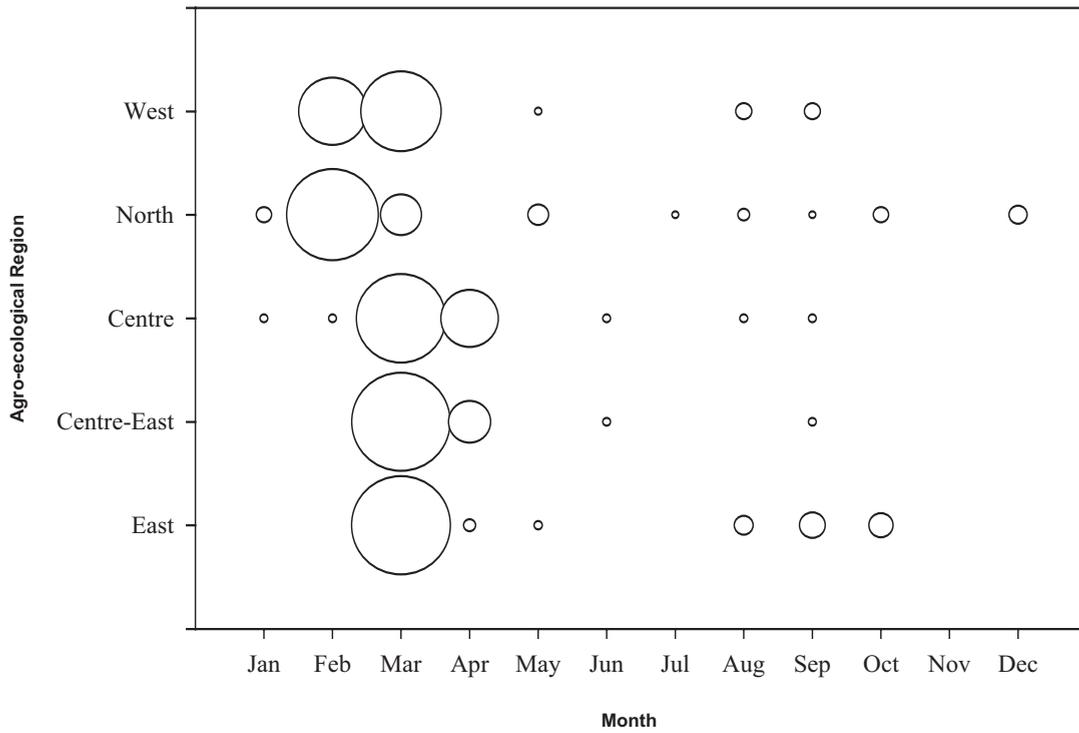
5.2.2 Production Calendar

The production calendar is summarised graphically by region. Lambing and kidding, timing of use of feed resources and sales are considered. The area of the circles in the graphs corresponds to number of respondents. Total number of respondents varied between 828 ('Supplemental Feeding') and 1114 ('Best Time to Sell Cattle'). The detailed figures are provided in the Tables A5-A10 of the Annex.



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**Figure 5 Begin of grazing season by region
(percent respondents represented in proportion)**



**Figure 6 End of grazing season by region
(percent respondents represented in proportion)**

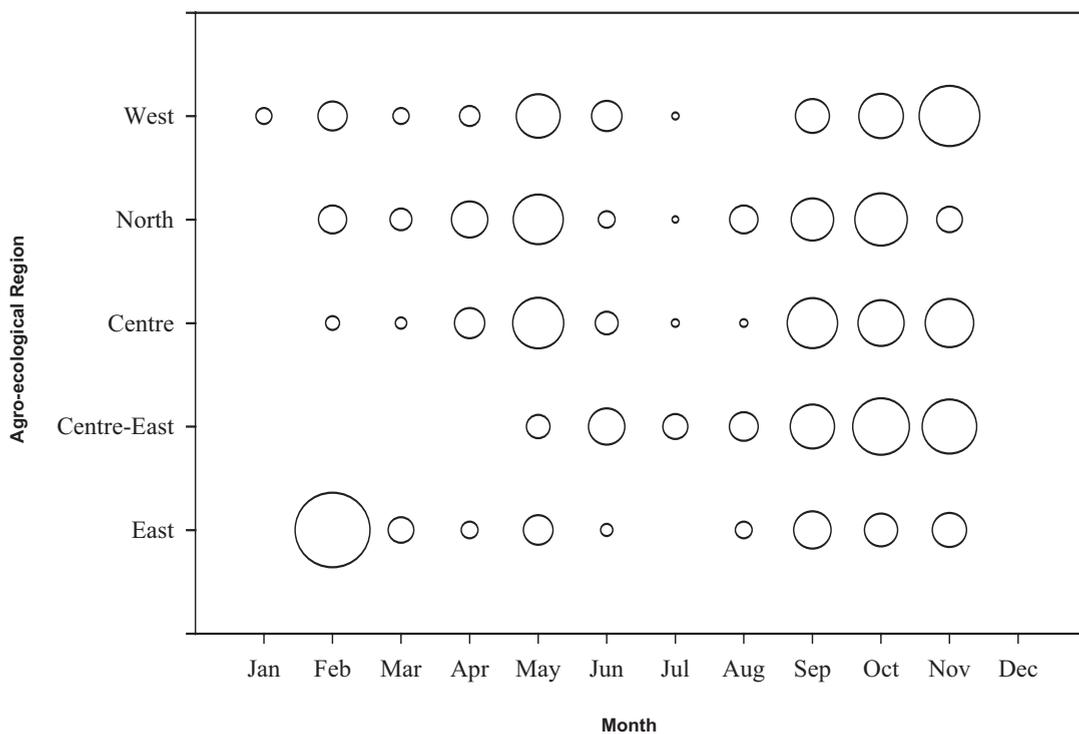


Figure 9 Begin of supplementary feeding by region (percent respondents represented in proportion)

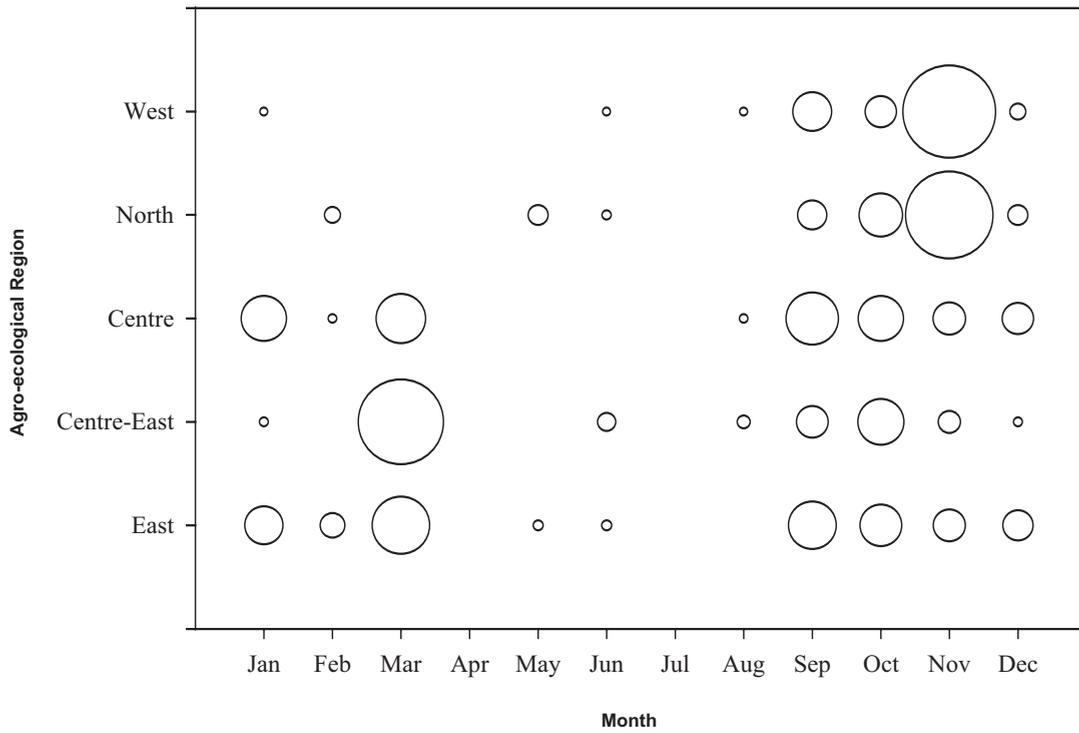


Figure 10 End of supplementary feeding by region (percent respondents represented in proportion)

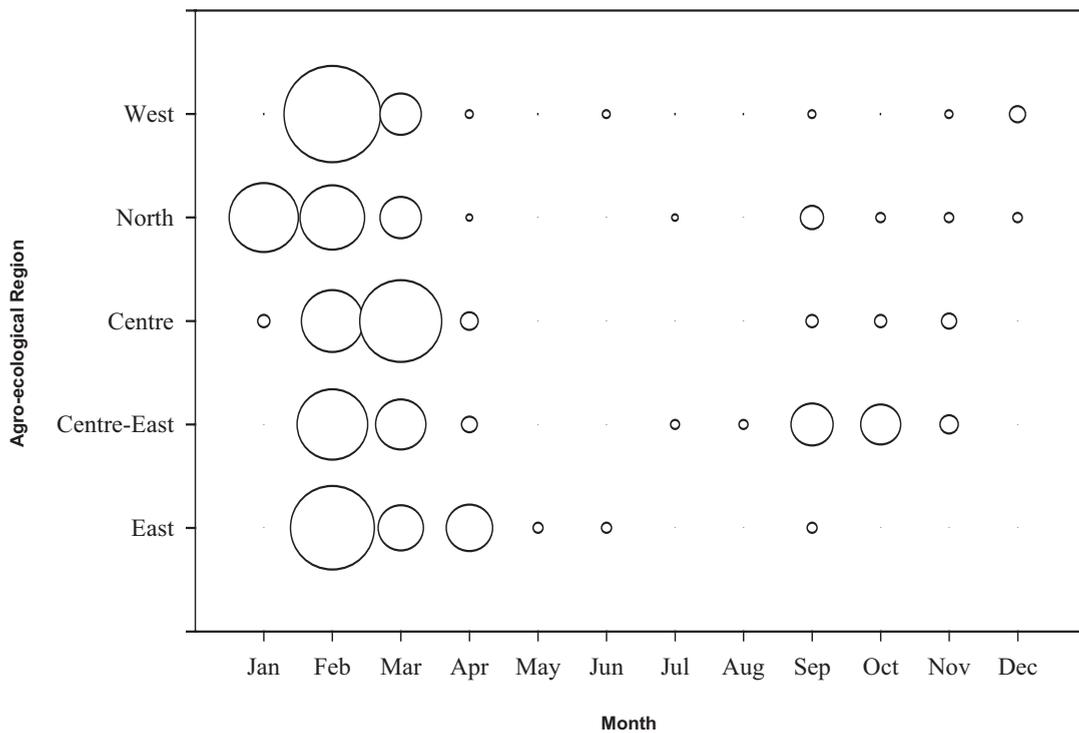


Figure 11 Best time to sell cattle by region (percent respondents represented in proportion)

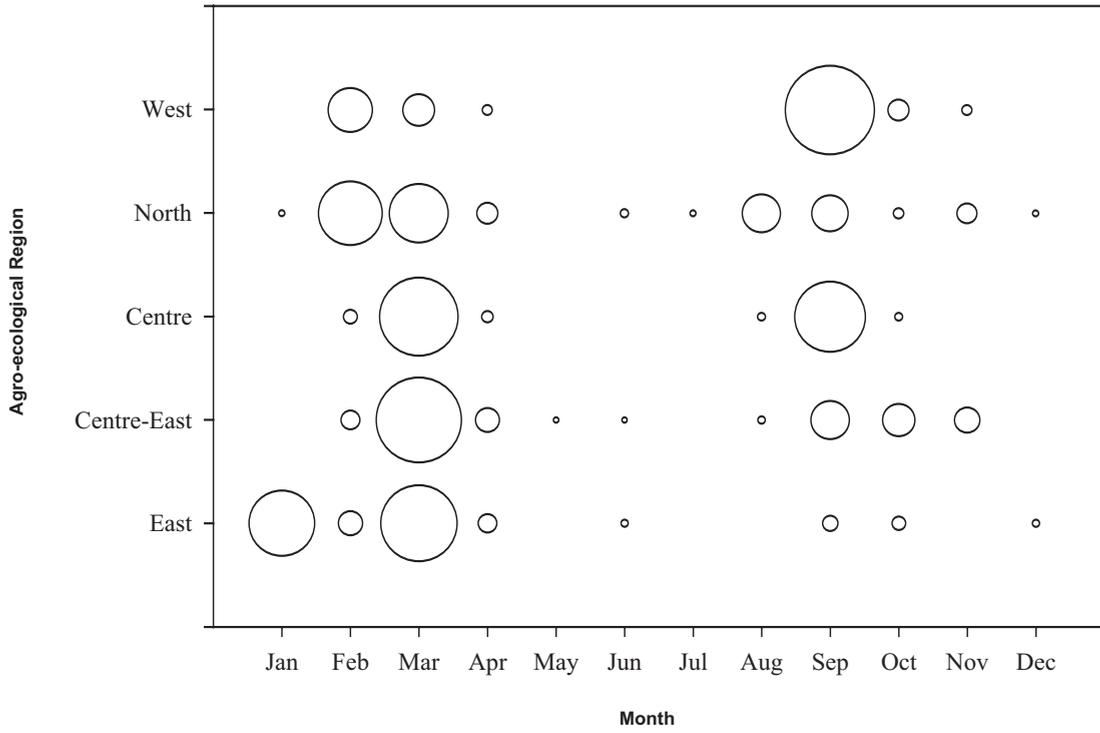


Figure 12 Best time to sell sheep by region (percent respondents represented in proportion)

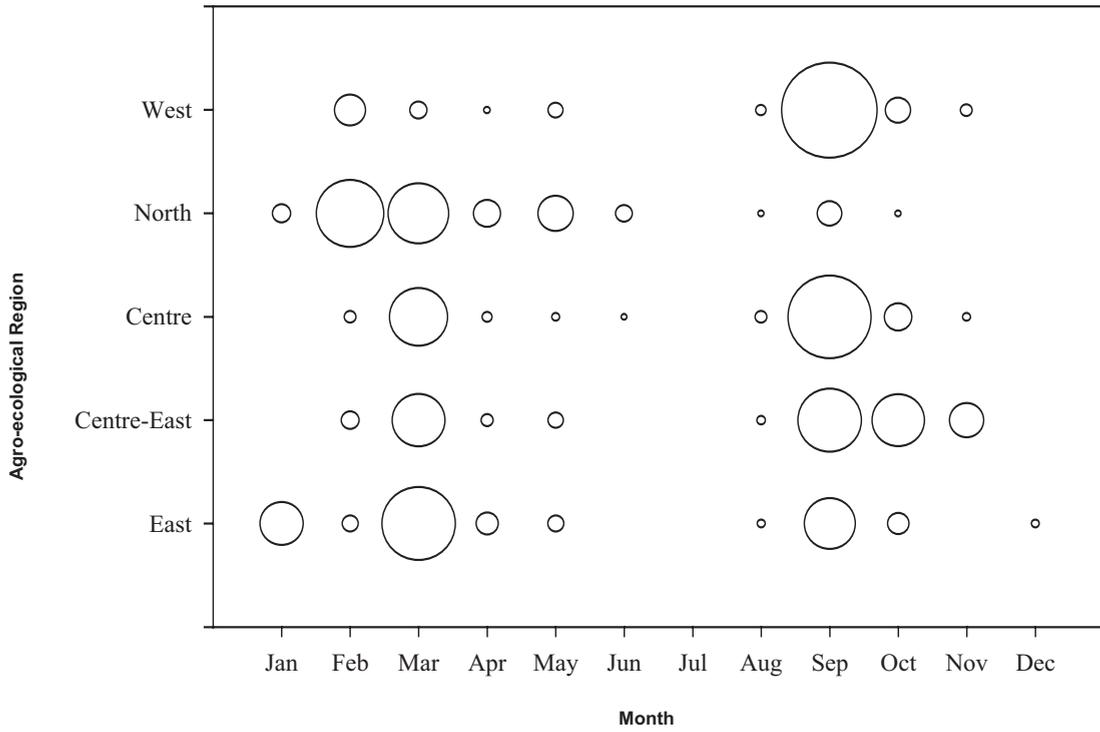


Figure 13 Best time to sell goats by region (percent respondents represented in proportion)

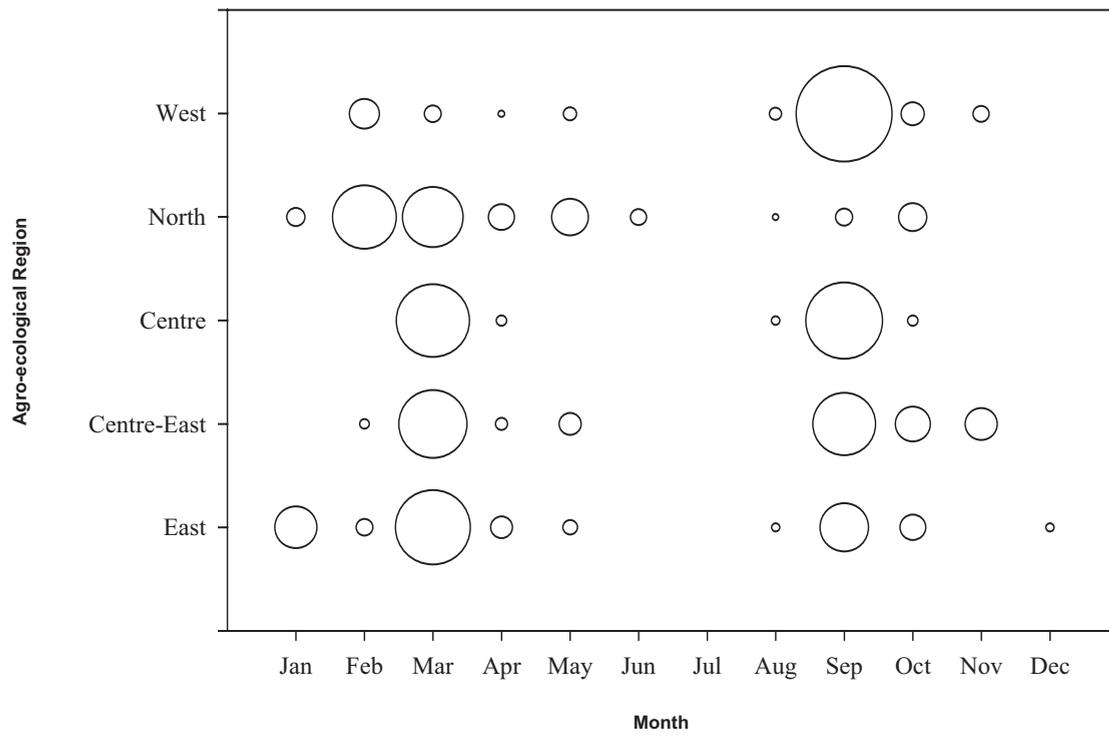
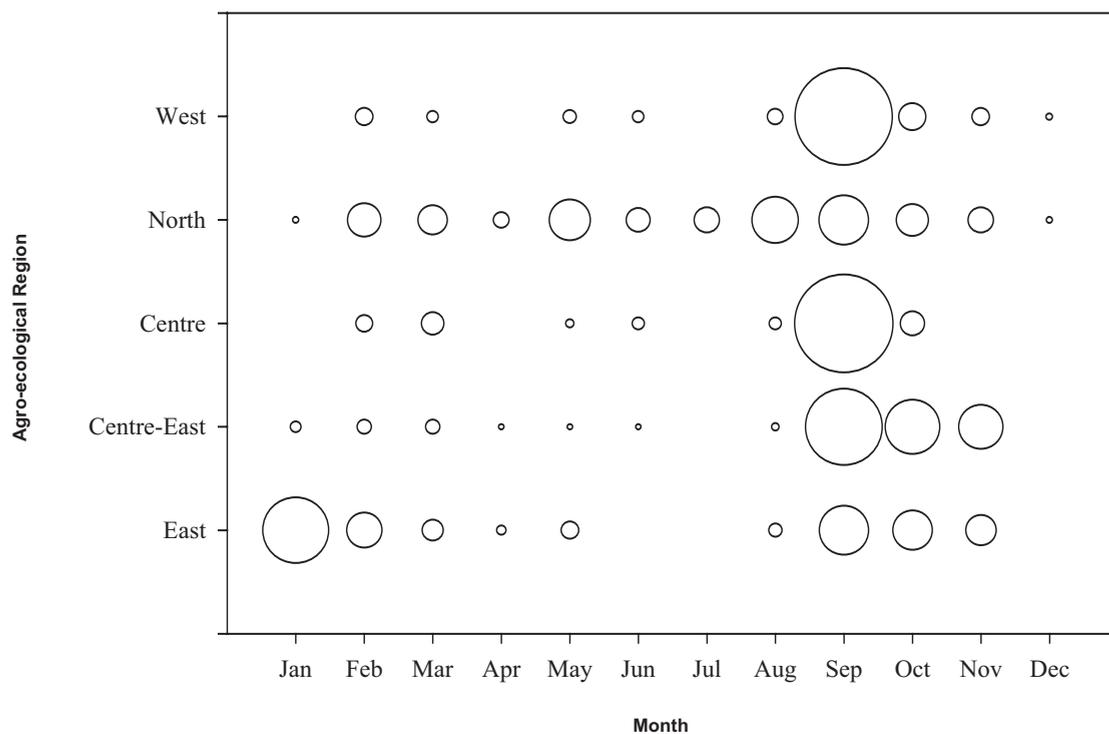


Figure 14 Best time to sell surplus by region (percent respondents represented in proportion)



5.2.3 Livestock Species, Numbers and Demography

The following summary graphs depict the age structure for major livestock species, differentiated by agro-ecological region. Data for camels and horses are summarised for the whole survey because there were not enough respondents to justify breakdown by agro-ecological zone. Note that different age categories were enumerated for different species. Data are also presented in tabular form for further reference in Section 5.3.2 'Livestock Management'.

Figure 15 Composition of cattle herds by sex and age groups in different regions

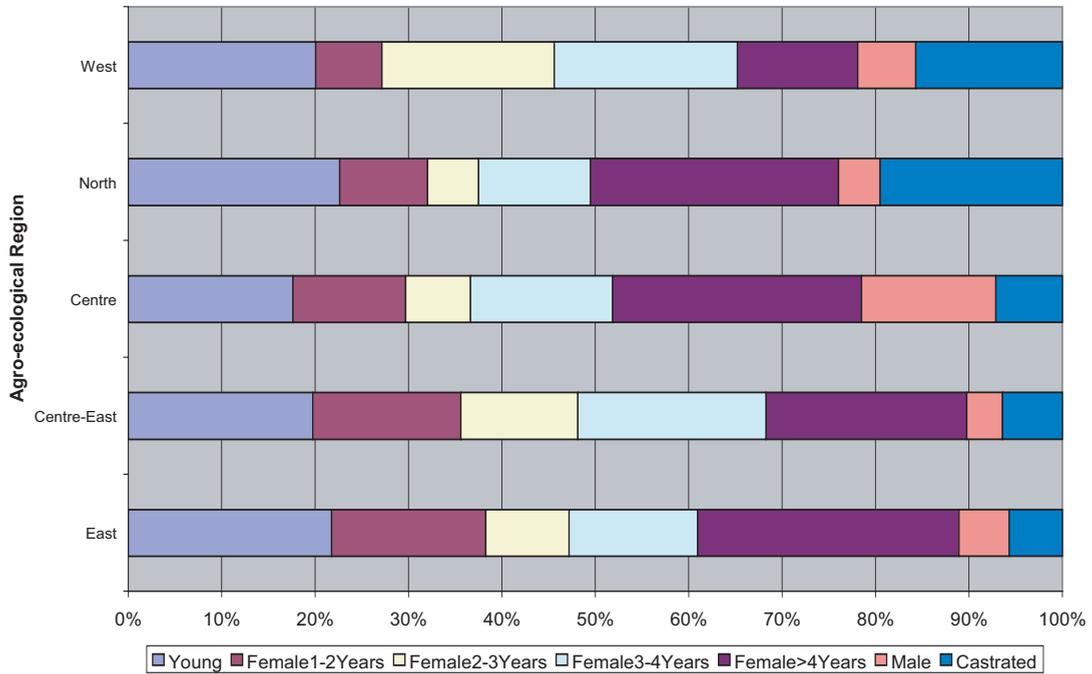


Figure 16 Composition of sheep flocks by sex and age groups in different regions

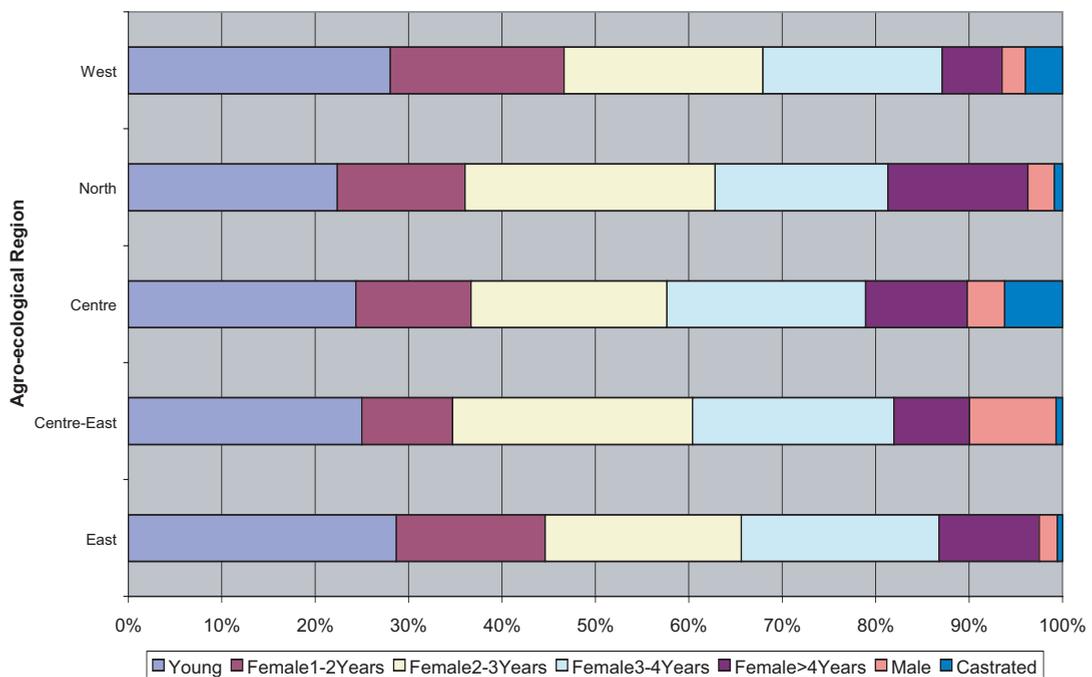


Figure 17 Composition of goat flocks by sex and age groups in different regions

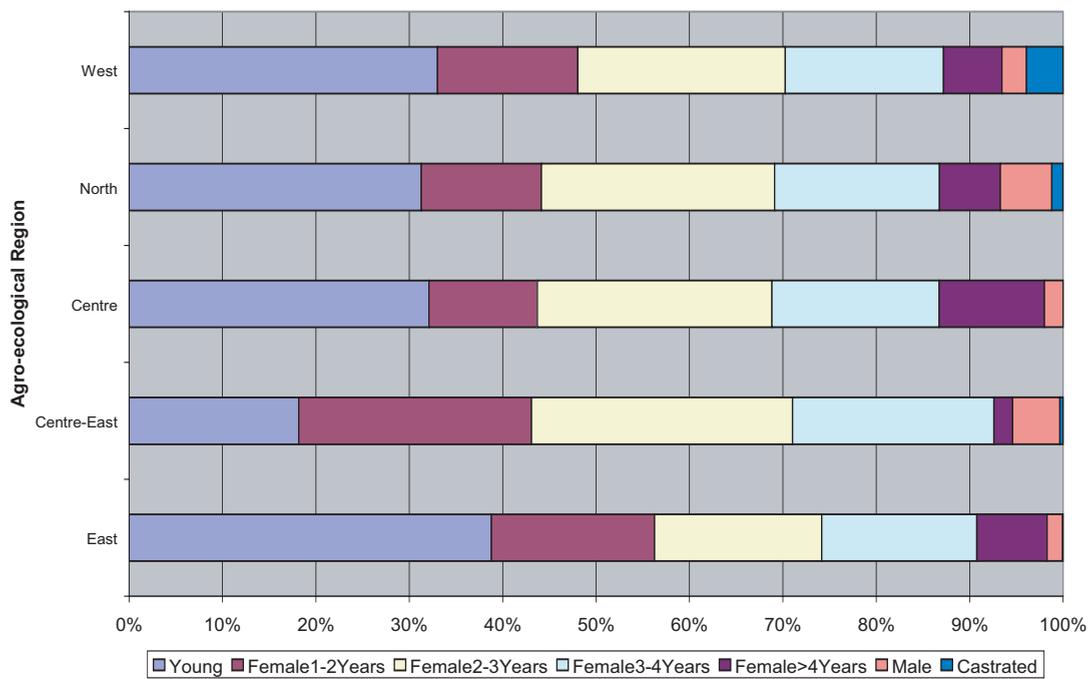


Figure 18 Composition of donkey herds by sex and age groups in different regions

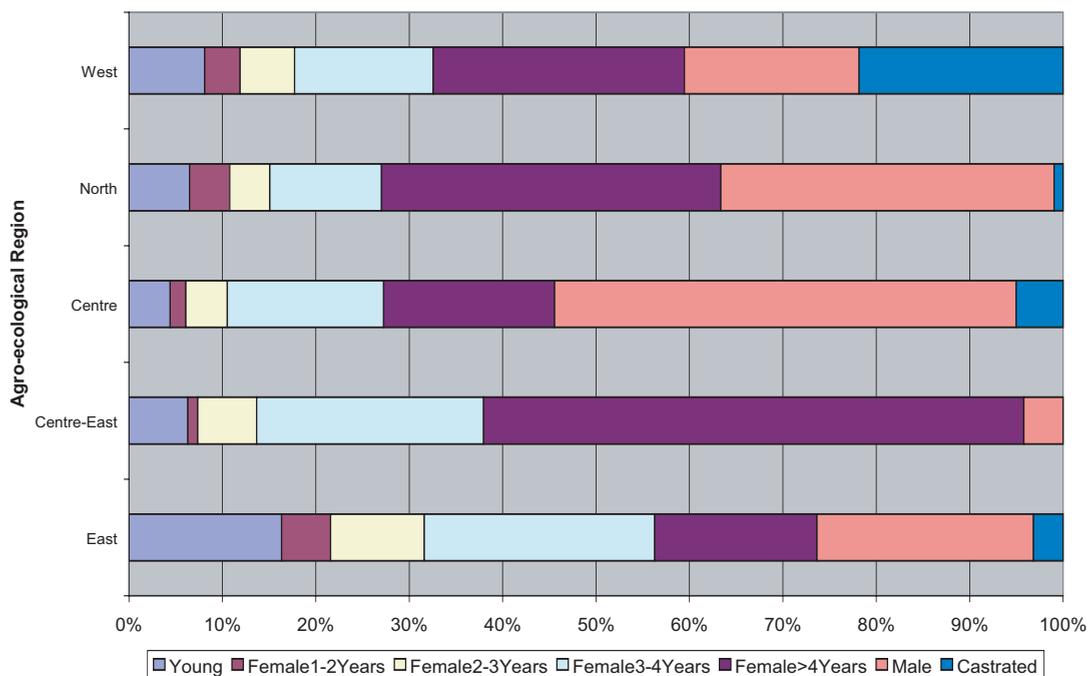


Figure 19 Composition of camel herd by sex and age groups (all regions)

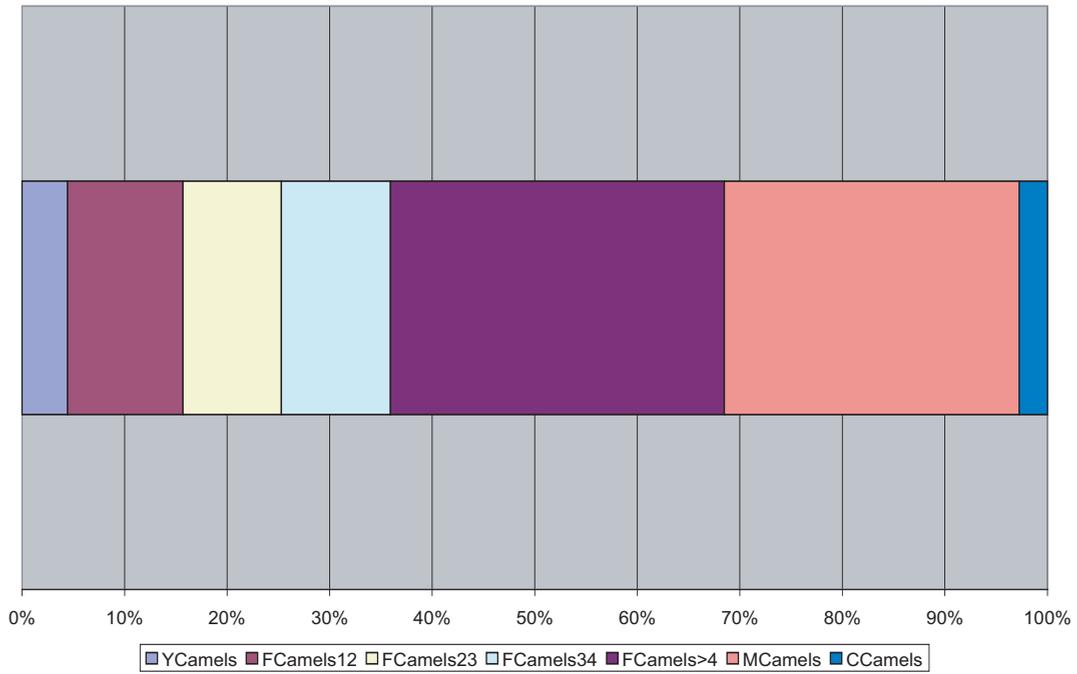


Figure 20 Composition of horse herd by sex and age groups (all regions)

