

3.2 Grazing animals used in projects

3.2.1 Species of grazing animals

Some sites utilised more than one species of grazing animals so the results in Table 5 are based on 182 records. The majority of sites used sheep and/or cattle and these species were used on an almost equal number of sites. Ponies were also widely used but horses and goats were used infrequently and pigs were used on just 2 sites. No other species of grazing livestock was recorded (a mention of rabbits was taken to refer to wild populations).

Table 5. Species of livestock used for grazing

	Sheep	Cattle	Equines	Goats	Pigs
Number of Sites	71	72	30	7	2
Percentage of Records	39	40	16	4	1

3.2.2 Breeds of Sheep

The breeds and crosses of sheep used are shown in Table 6. A surprisingly large number of 46 breeds or crosses were used on the 71 sites; the majority can be considered as commercial, although hardy, native breeds or crosses including hill breeds such as Cheviot, Derbyshire Gritstone, Herdwick, Scottish Blackface, Swaledale and Welsh Mountain, grassland breeds such as Beulah Speckled Face, Clun Forest, Jacob and Lleyn and down breeds such as Dorset (it was not stated whether this was Dorset Down or Dorset Horn), Hampshire Down and Southdown. Continental breeds were represented by Berrichon du Cher, Bleu du Maine and Texel. Rare breeds (i.e. those included on the Rare Breeds Survival Trust's priority and minority lists) were well represented by Hebridean, Leicester Longwool, Manx Loghtan, Portland, Shetland, Soay, Southdown, Teeswater and Wiltshire Horn.

Most of the breeds or crosses were used on fewer than five sites, suggesting that locally available stock was used rather than a particular selection of breed(s) for conservation grazing. Only two breeds appeared to run counter to this assertion in that they were used on more than ten widely dispersed sites: Beulah Speckled Face (11 sites) and Hebridean (18 sites).

3.2.3 Numbers of sheep

Table 6 also shows the number of sheep used at the 108 sites for which numbers were returned. Just over 40% were small flocks of less than 20 sheep and over two-thirds of the flocks consisted of less than 100 animals. Small flocks should not be unexpected given the size of the grazed areas (see 3.1.5) but 11% of sites had flocks of more than 200 sheep and numbers ranged up to 800 for a Scottish Blackface flock on a Scottish reserve. Despite being used on only two sites it would appear that Scottish Blackface are the most numerous of all breeds and crosses recorded in the survey. However ten other breeds or crosses were used in flocks of 200 or more animals.

Table 6. Breeds and numbers of sheep used for grazing (values indicate number of sites)

Breed or Cross	Numbers used for grazing								Total flocks
	>20	20-39	40-59	60-99	100-199	200-299	300-499	>500	
Berrichon du Cher x	2								2
Beulah Speckled Face	5			4	1	1			11
Beulah Speckled Face x				1					1
Beulah Speckled Face x Suffolk					1				1
Beulah Speckled Face x Welsh Mule					2				2
Black Welsh Mountain	1								1
Bleu du Maine x Cheviot			1						1
Bleu du Maine x Lleyn						1			1
Bleu du Maine x Mule			1						1
Cheviot						1			1
Cfun Forest	1								1
Derbyshire Gritstone			1						1
Dorset	1				1				2
Exmoor Horn ¹	1								2
Hampshire Down	1								1
Hebridean	13	3	1			1			18
Hebridean x Berrichon du Cher	1								1
Herdwick	2		1	1					4
Herdwick x Soay	1								1
Jacob	3		1						4
Kent							1		1
Leicester Longwool x ¹									1
Lleyn					1	1			2
Manx Loghtan	2	1	1						4
Masham					1				1

Breed or Cross	Numbers used for grazing								Total flocks
	>20	20-39	40-59	60-99	100-199	200-299	300-499	>500	
Mule			1		1		1		3
Northumberland Blackface							1		1
Portland			1						1
Rough Fell ¹					1				2
Scottish Blackface							1	1 ²	2
Scottish Blackface x					1				1
Scottish Halfbred	1						1		2
Scottish Halfbred x Suffolk							1		1
Shetland					1				1
Soay	1		1		1				3
Southdown	1	2							3
Southdown x Jacob	1								1
Suffolk	2				1				3
Suffolk x	1		1						2
Swaledale			1	1	2				4
Teeswater		1							1
Texel	1				1				2
Texel x		1	1						2
Welsh Mountain ¹			1	1	2				5
Welsh Mountain x	1								1
Wiltshire Horn	1	1							2
TOTALS	44	9	14	8	18	5	6	1	108

¹ For each of the indicated breeds one site was recorded as having varying numbers; these have been included in row and grand totals

² The Scottish Blackface flock numbered 800 animals

3.2.4 Breeds of cattle

Once again, the diversity of breeds and crosses of cattle is remarkable, with 54 used on the 72 sites (Table 7). As for sheep, hardy, native breeds and crosses were well represented, e.g. the Highland breed which was recorded on more sites (12) than any other breed; while no other individual breed or cross was used on more than 5 sites, Beef Shorthorn and its crosses and Hereford and Hereford x cattle were used on 12 and 9 sites respectively and Longhorn were used on five sites. However, this may be misleading as many of the Beef Shorthorn crosses were recorded from the same sites and the same may apply to other breeds and their crosses - hence the total of 124 records from 72 sites at which cattle were used.

Despite the prevalence of native beef breeds there was widespread use of continental beef breeds and native or imported dairy breeds e.g. Guernsey, Holstein, Jersey and Friesian; this last was the second most frequent breed (used on ten sites). Continental breeds (and their crosses) included Aubrac, Belgian Blue, Blonde d'Aquitaine, Charolais, Piemontese, Saler, Simmental and unnamed "continental" crosses. Murray Grey, originally an Australian breed, was another import. Rare breeds featuring on the Rare Breeds Survival Trust's priority and minority lists included Beef Shorthorn, British White, Longhorn, Red Poll, Shetland and White Park.

3.2.5 Numbers of cattle

Numbers of cattle used for grazing are shown in Table 7. Almost half (47.5%) of the herds comprised fewer than 20 animals but there were 11 herds which exceeded 100 head. Using the accepted livestock unit equivalents for sheep and cattle (1 LU = 1 cow = 6.6 sheep) these larger herds are equivalent to, or exceed, the largest sheep flocks and even the smallest herds may be equivalent to medium sized sheep flocks.

3.2.6 Breeds and numbers of goats

Six breeds of goat were recorded in the survey (Table 8); all were used at just one site except the Saanen x.

Table 8. Breeds and numbers of goats used for grazing (values indicate number of sites)

Breeds or Cross	Numbers used for grazing		
	<20	20-39	Total flocks
Bagot	1		1
Cashmere		1	1
Feral English		1	1
Golden Guernsey	1		1
Saanen x	2	1	3
"White"		1	1
TOTALS	4	4	8

Table 7. Breeds and numbers of cattle used for grazing (values indicate number of sites)

Breed or Cross	Numbers used for grazing					Total herds
	<20	20-39	40-59	60-99	100-199	
Aberdeen Angus	2				1	3
Aberdeen Angus x Friesian	1					1
Aubrac x Galloway			1			1
Beef Shorthorn		1	1			3 ³
Beef Shorthorn x	3	1			1	5
Beef Shorthorn x Hereford	1					1
Beef Shorthorn x Jersey x Longhorn	1					1
Beef Shorthorn x British White x Friesian x Hereford	1					1
Beef Shorthorn x British White x Friesian	1					1
Belgian Blue				1		1
Belgian Blue x	2					2
“Black” Hereford ¹	1					1
Blonde d’Aquitaine				1		1
Blonde d’Aquitaine x	2					2
British White	4					4
British White x	1					1
British White x Friesian	1					1
British White x Friesian x Hereford	1					1
Charolais				1	1	2
Charolais x	1			1		2
Charolais x Friesian	1					1
Charolais x Simmental	1					1
“Continental” x		1	1	1		3
Devon ²	2			1		3
Devon x		1				1
Dexter	1					1
Friesian ³	1	1		4	2	10 ³
Friesian x		1		1		2
Friesian x Hereford	1			1	1	3

Breed or Cross	Numbers used for grazing					Total herds
	<20	20-39	40-59	60-99	100-199	
Friesian x Holstein			1			1
Friesian x Limousin		1				1
Friesian x Simmental	1					1
Galloway x	2	1				3
Guernsey	1					1
Hereford ³						4 ³
Hereford x ³	2			2		5
Highland ³	8	1		1		12 ³
Holstein		1		1	1	3
Jersey	2					2
Limousin ³					1	2
Limousin x ³				2	2	5
Longhorn ³	1		1	1		5 ³
Murray Grey ³						1
Piemontese x	1					1
Red Poll	2		1			3
Saler	1					1
Saler x	1					1
Shetland	1					1
Simmental x				1	1	2
South Devon	1					1
"Store" cattle	1	1				2
Sussex	1	1				2
Welsh Black	1					1
White Park ³	2					3
TOTALS	59	12	6	20	11	124 ⁴

¹ Probably a Hereford x Friesian

² Includes references to Devon Red and North Devon in all tables referring to cattle breeds

³ For each of the indicated breeds one site was recorded as having varying numbers

⁴ Totals include herds for which no information on numbers was given

The Bagot and the Golden Guernsey are rare breeds on the Rare Breeds Survival Trust's priority list; the former has little commercial value, the latter is a dairy goat, as is the Saanen although the nature of the Saanen cross (or crosses) used on three sites is less clear. The Cashmere goat is kept commercially primarily for its fine hair. Feral 'English' goats are found in several locations distributed over England, Wales and Scotland and are hardy, thrifty animals. The nature of the "White" goats used at one site is unknown, although the colour suggests this may also be a Saanen or Saanen cross.

No goat flock exceeded 40 animals and overall the flocks were evenly divided between those with <20 individuals and flocks of 20-39 individuals.

3.2.7 Breeds and numbers of equines

Horses were recorded as grazing on one site; neither breed nor number was given. Ponies are more frequently used in conservation grazing and eight breeds were recorded (Table 9). All were native breeds except for the Konik which originates in Poland. Most are also hardy, upland breeds with the exceptions of the New Forest (which nevertheless is able to tolerate relatively low levels of nutrition) and the Konik (which is reputed to be especially tolerant of wet conditions).

Exmoor ponies were the most widely used but New Forest, Welsh Section A, Dartmoor and Shetland were all used on four or five sites. All herds for which numbers were recorded consisted of <20 animals. Dartmoor, Exmoor and Fell ponies are on the Rare Breeds Survival Trust's priority list.

Table 9. Breeds of ponies used for grazing (values indicate number of sites); all herds <20 animals

Breed	Total Herds
Dartmoor	4
Exmoor	9 ¹
Fell	1
Highland	1
Konik	1
New Forest	5
Shetland	4
Welsh Section A	5
TOTALS	30 ¹

¹ Includes a herd for which no information on numbers was given

3.2.8 Breeds and Numbers of Pigs

Two breeds of pig were recorded on one site each: Berkshire and Gloucester Old Spot. Both are on the priority list of the Rare Breeds Survival Trust and the herds used in the projects recorded in the survey numbered <20 animals.

3.2.9 Age of animals used for grazing

Table 10 shows the age of sheep of the various breeds used in the 75 grazing projects for which information on sheep age was given. Most flocks (43%) were of mixed ages. Flocks of young (<2 yr) and old (>10 yr) were rare (5% and 7% respectively); the 2 -5 yr age range was, in contrast, relatively common (27%). There were few patterns within or between breeds: Beulah Speckled Face appeared to be in older flocks (>6 yr) where data were given. Flocks of Hebrideans were recorded in all the age categories used, but this may merely reflect the larger number of Hebridean flocks featured in the survey (see 3.2.2).

Cattle ages are shown in Table 11 for 92 sites for which information was given. The majority (54%) of herds were in the 2 - 5 yr age class; surprisingly the next age class of 6 - 10 yr was poorly represented with just 5% of herds whereas older animals (11 - 20 yr) were as frequent as young (<2 yr) animals (13% and 12% respectively). Highland cattle of all ages were used, but this may again reflect the greater frequency of occurrence of this breed compared to others in the sample. Unusually on the one site using Dexters only <2 yr animals were used; normally such young animals are grazed with older stock.

For Bagot, "White" and the only Saanen x flock for which information was given all the goats were between 5 and 10 years old whereas Cashmere and Feral English goats were used in flocks of mixed age. The Berkshire pigs used were between 0 and 5 years of age whereas the Gloucester Old Spots were recorded as a mixed age herd.

**Table 10. Age of sheep used for grazing by breed (values indicate number of sites);
n = 75**

Breed or Cross	Age in years				
	<1	1-5	6-10	>10	Mixed
Berrichon du Cher x					2
Beulah Speckled Face			2	1	3
Beulah Speckled Face x		1			
Beulah Speckled Face x Suffolk		1			
Beulah Speckled Face x Welsh Mule		2			
Bleu du Maine x Cheviot					1
Bleu du Maine x Lleyn					1
Bleu du Maine x Mule					1
Clun Forest					1
Derbyshire Gritstone			1		1
Dorset			1		
Exmoor Horn			1		
Hampshire Down					1
Hebridean	1	4	1	1	6
Hebridean x Berrichon du Cher	1				
Herdwick		1			2
Herdwick x Soay					1
Jacob		1	1		1
Kent		1			
Leicester Longwool x			1		
Lleyn			1		1
Manx Loghtan					2
Masham			1		
Mule	1	1	1		
Northumberland Blackface		1			
Portland			1		
Rough Fell					1
Scottish Blackface		1			
Scottish Halfbred	1				1
Scottish Halfbred x Suffolk					1
Shetland				1	
Soay		1			3
Southdown		1	1	1	
Southdown x Jacob		1			
Suffolk					1
Suffolk x		1			
Swaledale		1	1		1
Teeswater				1	
Texel		1			
TOTALS	4	20	14	5	32

Table 11. Age of cattle used for grazing by breed (values indicate number of sites); n = 92

Breed or Cross	Age in years				
	<1	1-5	6-10	11-20	Mixed
Aberdeen Angus				1	2
Aberdeen Angus x Friesian		1			
Beef Shorthorn		1			
Beef Shorthorn x	1	2			
Beef Shorthorn x Hereford		1			
Beef Shorthorn x Jersey x Longhorn		1			
Beef Shorthorn x British White x Friesian x Hereford		1			
Beef Shorthorn x British White x Friesian		1			
Belgian Blue x		1		1	
“Black” Hereford		1			
Blonde d’Aquitaine x		1		1	
British White	1	3			
British White x		1			
British White x Friesian		1			
British White x Friesian x Hereford		1			
Charolais		1			
Charolais x				1	
Charolais x Friesian				1	
Charolais x Simmental		1			
“Continental” x		3			
Devon		1			
Devon x		1			
Dexter	1				
Friesian	1	4	1		
Friesian x		2			
Friesian x Hereford		2			1
Friesian x Holstein		1			
Friesian x Limousin		1			
Friesian x Simmental		1			
Galloway x	1	1			1
Guernsey				1	
Hereford	1	1			
Hereford x				1	2
Highland	1	3	3	2	
Holstein		2			
Jersey				1	1
Limousin		1			1
Limousin x					2

Breed or Cross	Age in years				
	<1	1-5	6-10	11-20	Mixed
Longhorn	2				1
Murray Grey					1
Piemontese x				1	
Red Poll	1	1			
Saler x		1			
Simmental x		1		1	
South Devon		1			
“Store” cattle		2			
Sussex			1		1
Welsh Black		1			
White Park	1				1
TOTALS	11	50	5	12	14

Table 12 shows the ages of ponies used in conservation grazing projects which ranged up to 36 years for one of the New Forest ponies. The most frequent age class, however, was young stock of between 1 and 5 years (33%), closely followed by herds with 6 - 10 yr individuals (29%). The longevity of several breeds was evident with Exmoor and Fell of 11 - 20 yr and New Forest and Welsh Section A of >20 yr.

Table 12. Age of ponies used for grazing by breed (values indicate number of sites); n = 24

Breed	Age in years				
	1-5	6-10	11-20	>20	Various
Dartmoor	2	1			1
Exmoor	2	2	1		1
Fell			1		
Konik		1			
New Forest	2	1		1	1
Shetland	1				2
Welsh Section A	1	2		1	
TOTALS	8	7	2	2	5

3.2.10 Sexes of animals used in conservation grazing projects

Table 13 shows the sexes of sheep kept; rams or wethers were kept on only 42% of sites whereas ewes were kept on 94% of sites. Unfortunately, the questionnaire did not ask respondents to distinguish between entire males (rams) and castrates (wethers); consequently it is not possible to say whether the six sites with apparently only male sheep were using rams or wethers. In general, wethers may be more frequent in crosses as cross-bred males are rarely

used for breeding. Where only ewes are kept they may be removed from the conservation site for tugging or may be non-breeding flocks.

Similar problems arise in interpreting Table 14 which shows the sexes of cattle used. Only 5% of herds were male only and these are even more likely to be castrates (steers) than for sheep. Similarly it seems likely that many of the 45 sites keeping both sexes refer to steers as well as cows, since it would be highly unusual for such a high percentage (44%) of herds to have their own bull. Just over half the herds appear to comprise females only, but 95% of herds included females.

Goat flocks consisted of both sexes for Bagot, Cashmere, Feral English and “White” breeds, of female only for Golden Guernsey and male only for the one Saanen x flock for which information was given. For the Berkshire pigs only females were used whereas both sexes of Gloucester Old Spot were kept.

Both males (presumably including geldings) and female ponies of most breeds were used (Table 15), but most herds were apparently female-only or male-only. The one herd of Fell ponies was female-only and there was no information for the Highland pony herd. Thus for all breeds females were kept on 72% of sites and males on 64% of sites.

Table 13. Sex of sheep used for grazing by breed (values indicate number of sites); n = 93

Breed or Cross	Sex		
	Male	Female	Both
Berrichon du Cher x			1
Beulah Speckled Face	2	4	5
Beulah Speckled Face x		1	
Beulah Speckled Face x Suffolk		1	
Beulah Speckled Face x Welsh Mule		2	
Black Welsh Mountain		1	
Bleu du Maine x Cheviot		1	
Bleu du Maine x Lleyn		1	
Bleu du Maine x Mule		1	
Cheviot		1	
Clun Forest			1
Derbyshire Gritstone		1	
Dorset		2	
Exmoor Horn		1	
Hampshire Down		1	
Hebridean		5	8
Herdwick	1		3
Herdwick x Soay			1
Jacob	1	1	2
Kent		1	
Lleyn		2	

Breed or Cross	Sex		
	Male	Female	Both
Manx Loghtan		1	3
Masham		1	
Mule		3	
Northumberland Blackface		1	
Portland		1	
Rough Fell		1	
Scottish Blackface		1	
Scottish Blackface x		1	
Scottish Halfbred			1
Scottish Halfbred x Suffolk		1	
Shetland			1
Soay		1	3
Southdown		1	1
Southdown x Jacob		1	
Suffolk	1	1	1
Suffolk x		1	
Swaledale		3	
Teeswater		1	
Texel	1	1	
Texel x		1	
Welsh Mountain		3	1
Welsh Mountain x		1	
Wiltshire Horn		1	1
TOTALS	6	54	33

Table 14. Sex of cattle used for grazing by breed (values indicate number of sites); n = 103

Breed or Cross	Sex		
	Male	Female	Both
Aberdeen Angus		2	1
Aberdeen Angus x Friesian		1	
Aubrac x Galloway			1
Beef Shorthorn			1
Beef Shorthorn x		1	3
Beef Shorthorn x Hereford		1	
Beef Shorthorn x Jersey x Longhorn		1	
Beef Shorthorn x British White x Friesian x Hereford	1		
Beef Shorthorn x British White x Friesian			1
Belgian Blue x		2	

Breed or Cross	Sex		
	Male	Female	Both
"Black" Hereford			1
Blonde d'Aquitaine x		2	
British White			4
British White x			1
British White x Friesian		1	
British White x Friesian x Hereford		1	
Charolais		1	
Charolais x		1	
Charolais x Friesian		1	
Charolais x Simmental	1		
"Continental" x			3
Devon		2	1
Devon x			1
Dexter			1
Friesian		4	3
Friesian x			2
Friesian x Hereford		3	
Friesian x Holstein		1	
Friesian x Limousin			1
Friesian x Simmental		1	
Galloway x	1	1	1
Guernsey		1	
Hereford		1	
Hereford x		2	1
Highland	1	5	4
Holstein		3	
Jersey		1	1
Limousin		2	
Limousin x		1	3
Longhorn		1	2
Murray Grey		1	
Piemontese x		1	
Red Poll		2	1
Saler		1	
Saler x		1	
Simmental x		1	1
South Devon			1
"Store" cattle			2
Sussex			2
Welsh Black	1		
White Park		2	1
TOTALS	5	53	45

Table 15. Sex of ponies used for grazing by breed (values indicate number of sites); n = 25

Breed	Sex		
	Male	Female	Both
Dartmoor	1	2	1
Exmoor	4	1	2
Fell		1	
Konik			1
New Forest	1	1	3
Shetland		1	1
Welsh Section A	1	3	1
TOTALS	7	9	9

3.2.11 Ownership of stock

The question concerning ownership of the stock suggested three alternatives: owned by ‘yourself/your organisation’, ‘on loan’ and ‘belong to tenant’. The results are shown in Figure 6; respondents for 21 sites (17%) did not answer this question.

Figure 6. Ownership of stock

Yourself / Your Organisation	On Loan	Tenant	Number of Sites	Percentage of Total
			42	34.4
			9	7.4
			27	22.1
			9	7.4
			9	7.4
			4	3.3
			1	0.8

The managing individual or agency of 34% of the sites owned all, and a further 16% owned some, of the stock used. Conversely, the managers of almost two-thirds of sites were at least in part reliant on other owners of the stock used for grazing. Tenants owned all the stock on 22% of sites and some of the stock on a further 12% and at least some of the stock were on loan on 19% of sites.

3.2.12 Grazing agreements

There was no response to this question from 29 sites (23.8%) but of the total 122 sites 44% were grazed under a grazing licence agreement alone and a further 9% of sites had a grazing licence agreement amongst other arrangements (Figure 7). “Special agreements” with the stock owner and tenanted agreements accounted for 12% and 6% of sites respectively. A total of 13 types or combinations of grazing agreements were identified but most accounted for <2% of sites. Clearly grazing licences were the most frequent arrangement for grazing sites accounting for over half (58%) of the sites for which information was available.

Figure 7. Grazing arrangements and agreements

Grazing Licence Agreement	Special Agreement	Tenanted Agreement	Commoners' Rights	NNR Management Plan	Farm Business Tenancy	Owned	Other	Number of Sites	Percentage of Total
								54	44.3
								15	12.3
								7	5.7
								2	1.6
								2	1.6
								1	0.8
								5	4.1
								2	1.6
								1	0.8
								1	0.8
								1	0.8
								1	0.8
								1	0.8

3.2.13 Reasons for the Selection of Species and Breeds of Grazing Livestock

The questionnaire suggested nine reasons for the selection of stock for conservation grazing projects, but the 'other' option produced another 17 (Box 5). The reasons suggested in the questionnaire concentrated on commercial farming attributes or ready availability, whereas reasons provided by respondents, while including considerations such as products and useful attributes such as ease of lambing, were more diverse and included appearance, interest, cost, and local tradition. Some reasons have been grouped in Box 5 e.g. local, local breed, tradition and hefted stock have been treated as equivalent although clearly they are not identical.

Box 5: Reasons for choice of type or breed of livestock suggested in the questionnaire (numbers 1-9) or by respondents (numbers 10-26)

- | | |
|-------------------------------------|--|
| 1. Market demand | 14. Local / Local breed / Tradition / Hefted stock |
| 2. Availability at time of purchase | 15. Available on loan |
| 3. Stock belonging to local farmer | 16. No need to shear |
| 4. Grazing behaviour | 17. Fleece |
| 5. Growth rate on given pasture | 18. Meat quality |
| 6. Ability to finish | 19. Milk |
| 7. Temperament | 20. For public / Display / Appearance |
| 8. Adapted to climate (hardiness) | 21. Curiosity / Experiment |
| 9. Fertility | 22. Ease of handling |
| 10. Provided free | 23. Easy lambing / Easy to breed / Maternal instinct |
| 11. Fun / Likeable | 24. Light |
| 12. Rare breed / To preserve stock | 25. Work potential |
| 13. Unlikely to be stolen | 26. Inexpensive |

The frequency with which these diverse reasons were cited is illustrated in Figure 8. As there was no limit on the number of reasons a respondent could give a large number (92) of possible combinations emerged and in all there were 306 records for this question. However, some reasons were cited much more frequently than most: 'stock belonging to a local farmer' was the sole reason given for stock selection at 58 sites, and was cited 144 times in total indicating that it was an important factor for the more than one species or breed used at many sites. Similarly 'grazing behaviour' was cited for 157 sites (more than any other reason) but, in contrast to 'stock belonging to a local farmer', it was the sole reason at just five sites, suggesting that other attributes of the stock were as, or more, important. The combination of these two reasons was cited for a further 24 sites. The third most frequent reason with 140 citations was 'adapted to climate (hardiness)' but this was never given as the sole reason for choice of grazing stock. 'Temperament' was also an important consideration with 81 mentions, but always in conjunction with other reasons.

Other frequently cited combinations were:

- 'grazing behaviour' with 'adapted to climate (hardiness)' (17 citations);
- 'stock belonging to a local farmer', 'grazing behaviour' and 'adapted to climate (hardiness)' (18 citations);
- 'grazing behaviour', 'temperament' and 'adapted to climate (hardiness)' (16 citations).

Of the 92 combinations, 64 were cited at only a single site, indicating considerable individualism in the selection of stock to suit particular circumstances.

Of the 26 reasons, 12 were cited on just one or two occasions e.g. 'unlikely to be stolen', 'meat quality' etc. The reasons suggested in the questionnaire were cited more than any 'other' reason and amongst the 'other' reasons only 'rare breed / to preserve stock' and 'for public / display / appearance' were cited 10 or more times.

To summarise the responses Table 16 gives the percentage of the 306 responses answering 'Yes' or 'No' to the nine reasons suggested in the questionnaire with the additional reasons given by respondents grouped as 'other'. Note that 13% of respondents gave no reason for the choice of stock used.

Table 16. Summary of frequency of citation of reasons for choice of grazing stock

For full descriptions of reasons see 1 - 9 in Box 5; reasons 10 - 26 in Box 5 = 'other'. Values are percentages of 306 responses which includes 40 nil responses (13%).

Reasons	Market demand	Availability	Local farmer	Grazing behaviour	Growth rate	Ability to finish	Temperament	Hardiness	Fertility	Other
Yes	7	13	47	51	13	9	27	45	6	20
No	80	74	40	36	75	79	61	42	81	67

Figure 8. Frequency of combinations of reasons cited for choice of breed or type of livestock; numbers refer to list of reasons in Box 5. Values in last row of the table are the total number of times a reason was cited

Reason(s) cited for choice																										No. of sites	% of total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
																											4	0.3	
																												58	3.9
																												5	0.3
																												2	0.1
																												1	0.1
																												4	0.3
																												1	0.1
																												3	0.2
																												1	0.1
																												24	1.6
																												1	0.1
																												1	0.1
																												1	0.1
																												1	0.1
																												1	0.1
																												17	1.2
																												1	0.1
																												1	0.1
																												1	0.1
																												1	0.1
																												1	0.1
																												1	0.1
																												4	0.3
																												1	0.1
																												1	0.1

Reason(s) cited for choice																										No. of sites	% of total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
																										1	0.1	
																											1	0.1
																											3	0.2
																											18	1.2
																											1	0.1
																											4	0.3
																											1	0.1
																											16	1.1
																											1	0.1
																											1	0.1
																											1	0.1
																											2	0.1
																											1	0.1
																											1	0.1
																											2	0.1
																											1	0.1
																											2	0.1
																											1	0.1
																											1	0.1
																											2	0.1
																											4	0.3
																											9	0.6
																											2	0.1
																											1	0.1
																											1	0.1
																											2	0.1

Reason(s) cited for choice																										No. of sites	% of total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
	■			■	■	■	■	■			■																1	0.1
			■	■	■		■	■											■	■			■				1	0.1
■	■		■	■	■		■	■											■	■			■				1	0.1
■		■	■	■	■	■	■	■			■												■				1	0.1
							■										■										1	0.1
■				■				■									■										1	0.1
■			■	■			■	■																			1	0.1
		■	■	■	■	■	■	■																			1	0.1
		■	■	■	■	■	■	■																			1	0.1
		■	■	■	■	■	■	■																			1	0.1
			■	■	■	■	■	■												■							3	0.2
	■		■			■	■													■							1	0.1
■	■				■	■														■							1	0.1
		■																						■			1	0.1
21	41	144	157	37	26	81	140	19	3	2	10	1	5	2	2	2	2	1	2	19	2	2	6	1	1	1		