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Sheep breed dynamics over the last 30 years: responding to policy and economic changes in Britain

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DEFRA/NSP-funded project: An analysis of the current and future breeding structure of the British sheep industry for disease control purposes

Background

- ➤ No regular and systematic information collected about breed number, size and breeding structure of British sheep industry
- ➤ Specific surveys carried out in 1971, 1987, 1996 and 2003
- > Annual sheep number collected by DEFRA

Current situation

Breeding structure of the British sheep industry 2003 (millions)

```
3.83 Hill x Same breed Hill

1.24 Hill x Longwool (LW) Upland

3.63 (LW x Hill) Terminal sire (TS)

Lowland

0.89 (TS x (LW x Hill)) x TS
```

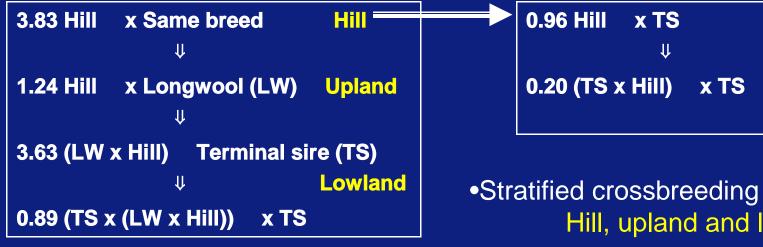
Breeding structure of the British sheep industry 2003 (millions)

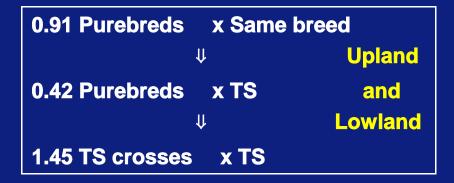
```
0.96 Hill
3.83 Hill
           x Same breed
                                 Hill •
                                                                 x TS
                                                                                  Hill
                \downarrow \downarrow
                                                                                  and
           x Longwool (LW) Upland
                                                     0.20 (TS x Hill)
1.24 Hill
                                                                        x TS
                                                                                Upland
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Breeding structure of the British sheep industry 2003 (millions)

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Breeding structure of the British sheep industry 2003 (millions)





 Stratified crossbreeding structure Hill, upland and lowland

Hill

and

Upland

- •14.4 million ewes mated
- Lamb meat the main product

Breed numbers

Breed headlines 2003

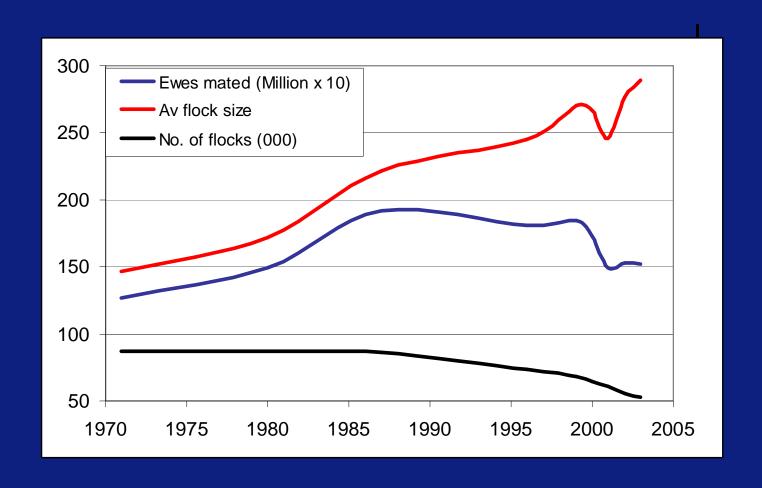
- 94 breeds and >300 crossbred types recorded
- Scottish Blackface (1.69 million), Welsh Mountain (1.58) and Swaledale (1.05) – largest ewe breeds

Breed headlines 2003

- 94 breeds and >300 crossbred types recorded
- Scottish Blackface (1.69 million), Welsh Mountain (1.58) and Swaledale (1.05) – largest ewe breeds
- Texel (0.33) and Suffolk (0.23) largest Terminal Sire breeds
- 57 breeds contain less than 10,000 ewes
- North Country Mule (1.92) largest crossbred
- Suffolk and Texel sired 1.37 and 1.12 million crossbred ewes

Changes 1971 - 2003

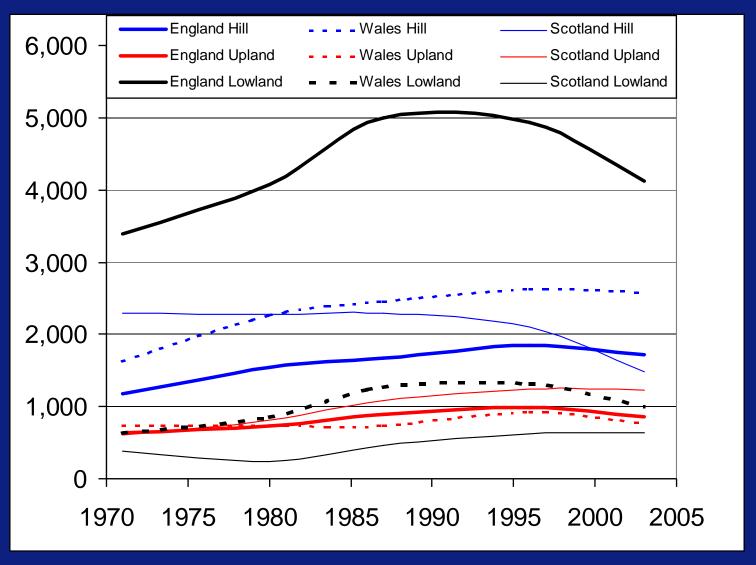
Sheep trends 1971-2003



Headline changes 1971 - 2003

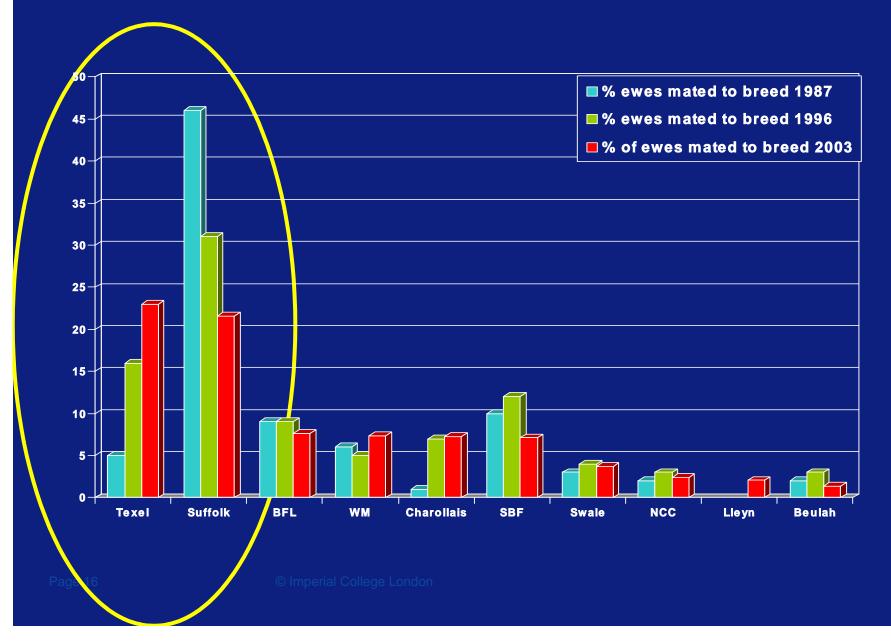
- Purebreds fell from 68% to 50% of ewes
- 44 breeds in 1971 97 in 2003
- Decline in some local ewe breeds
- Rise of Bluefaced Leicester crosses, Terminal Sire cross ewes
- Breed use responded to economic pressures to become more efficient

Sectoral changes in ewe numbers (000)



Case study 1 – The rise of the Texel Meeting market demands for leaner meat

Ewes bred to main ram breeds



Case study 2 – More efficient ewes
The rise of Bluefaced Leicester crossbred ewes

Percentage of purebred and crossbred ewes 1971-2003

	1971	1987	1996	2003
Purebred ewes	68	53	54	50
Crossbred ewes	32	47	46	50

Changes in some crossbred ewe numbers (000)

	1971	1987	1996	2003
North Country Mule	311	3,233	3,809	1,915
Welsh Mule	0	370	631	738
Welsh Halfbred	304	410	250	130
Suffolk crosses	787	1,630	1,165	1,290
Texel crosses	0	199	726	1,027

Concluding remarks

- Sheep producers respond to policy and economic pressures
- These responses can take the form of using new breeds
- Also using more efficient ewes
- Big changes have occurred in Britain over the last 30 years in sheep numbers and breed demography

Acknowledgements

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