

70th Annual Meeting of the European
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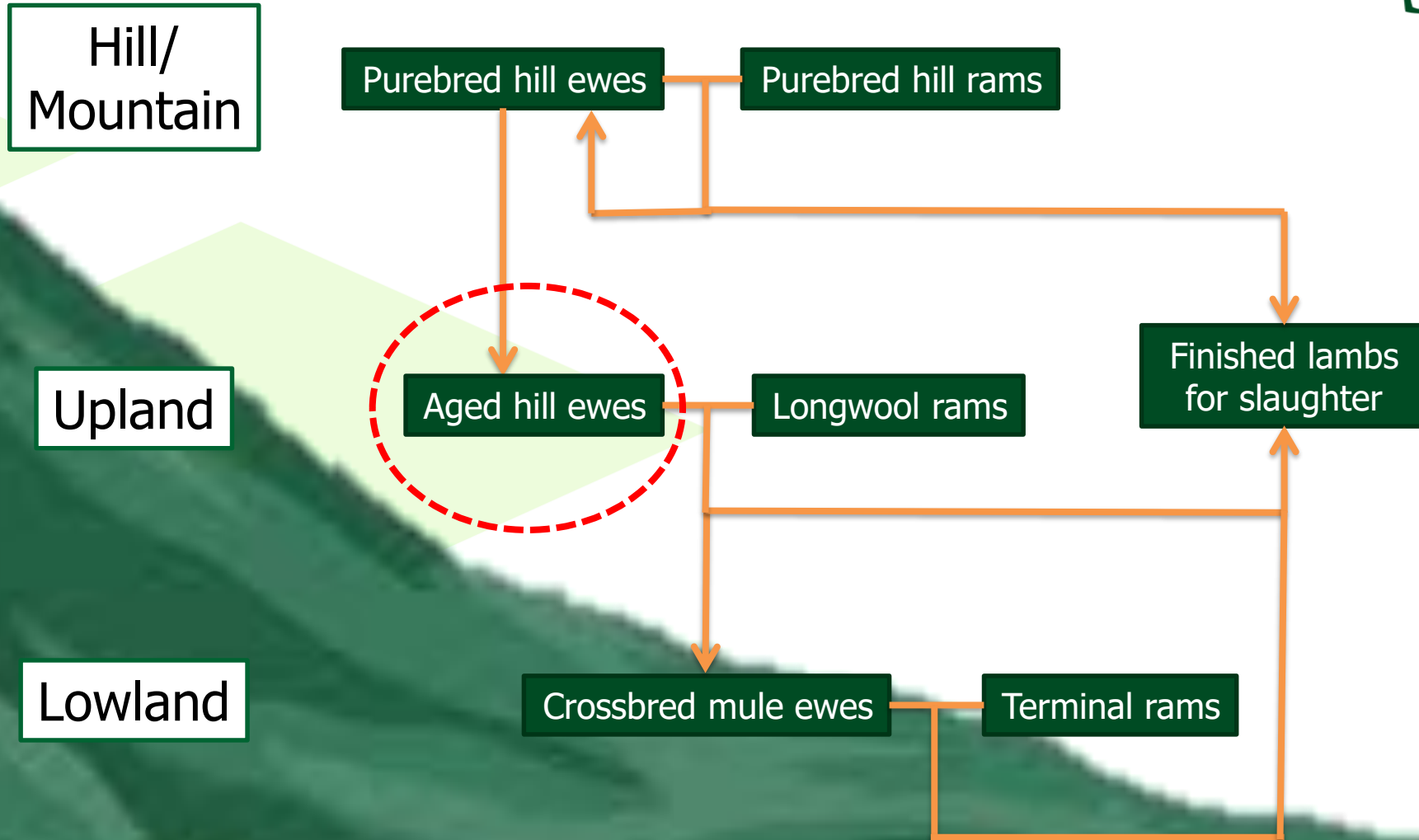
Performance, longevity and financial impacts of removing productive ewes early from mountain flocks

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Leading the way in Agriculture and Rural Research, Education and Consulting

UK stratified sheep industry




Aged hill ewes



Culling on age:

 Financial benefit to sell “sound” animals

 Remove before performance/welfare impacted

 Reduced longevity: genetics and environmental

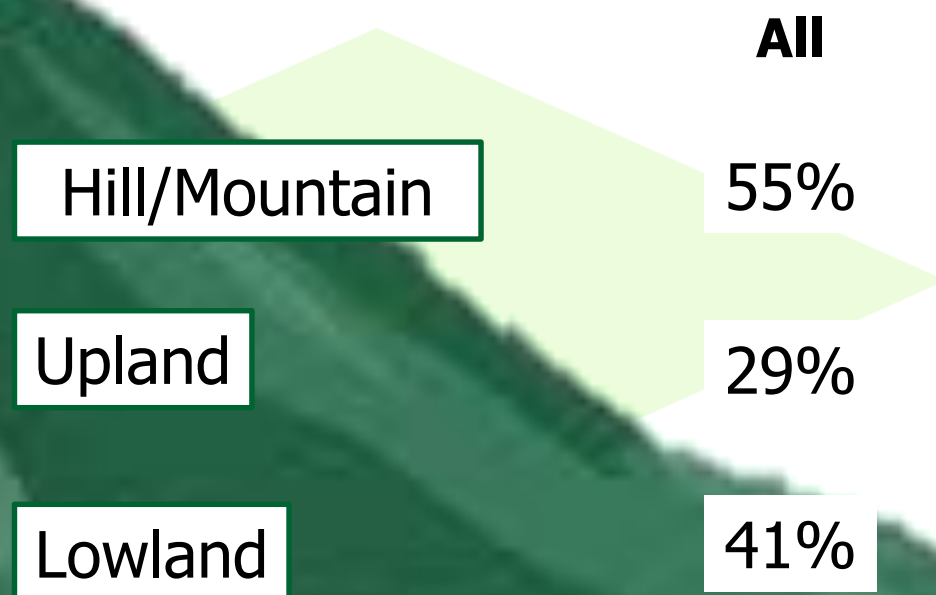
 Need more replacements so less to sell

- Are ewes still being culled on age from hill farms?
- If aged ewes were retained, what are the impacts on productivity and profitability?

Are ewes still being culled on age from hill farms?



Questionnaire: 115 UK farmers
Are ewes culled from the main breeding flock based on age?



Yes, hill farms still cull based on age. But not all...

If aged ewes were retained, what are the impacts on productivity and profitability?

**SRUC's
Kirkton and Auchtertyre Farms**



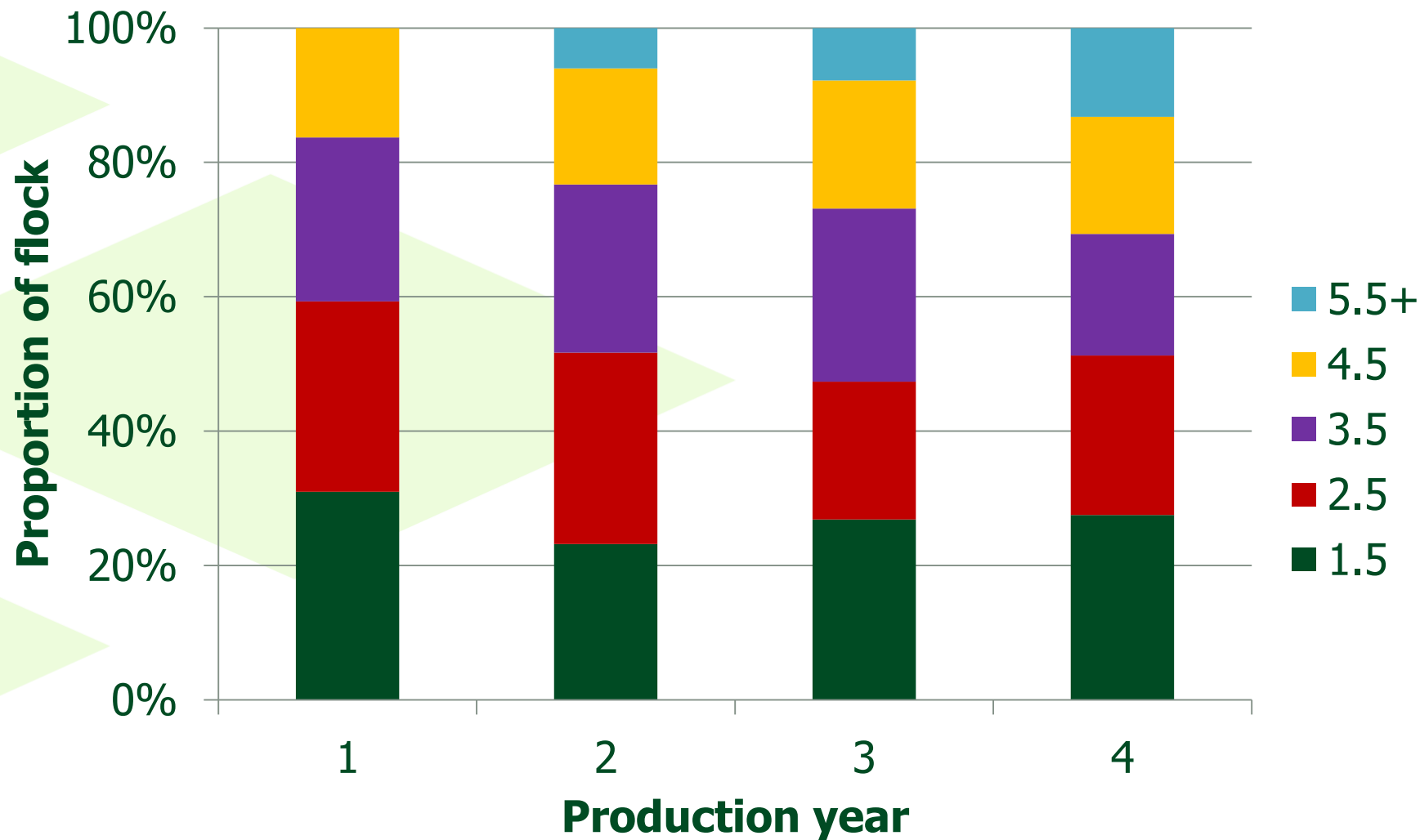
If aged ewes were retained, what are the impacts on productivity and profitability?

- Flock of ~300 Scottish Blackface hill ewes
- Stopped cull after 4 crops (aged 5.5 years old)

After 4 years: flock structure.....



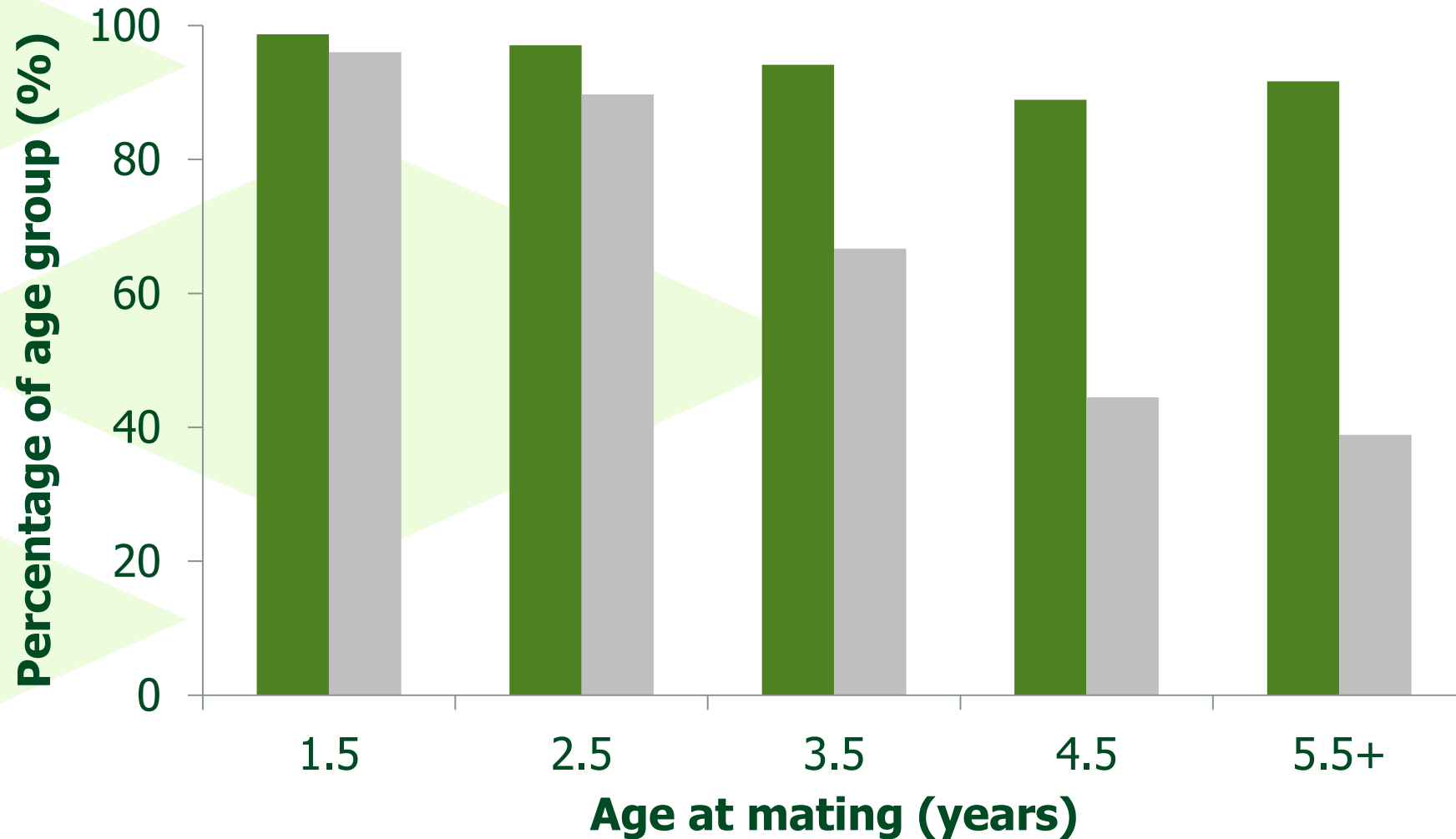
Retaining older ewes on farm



Performance by age



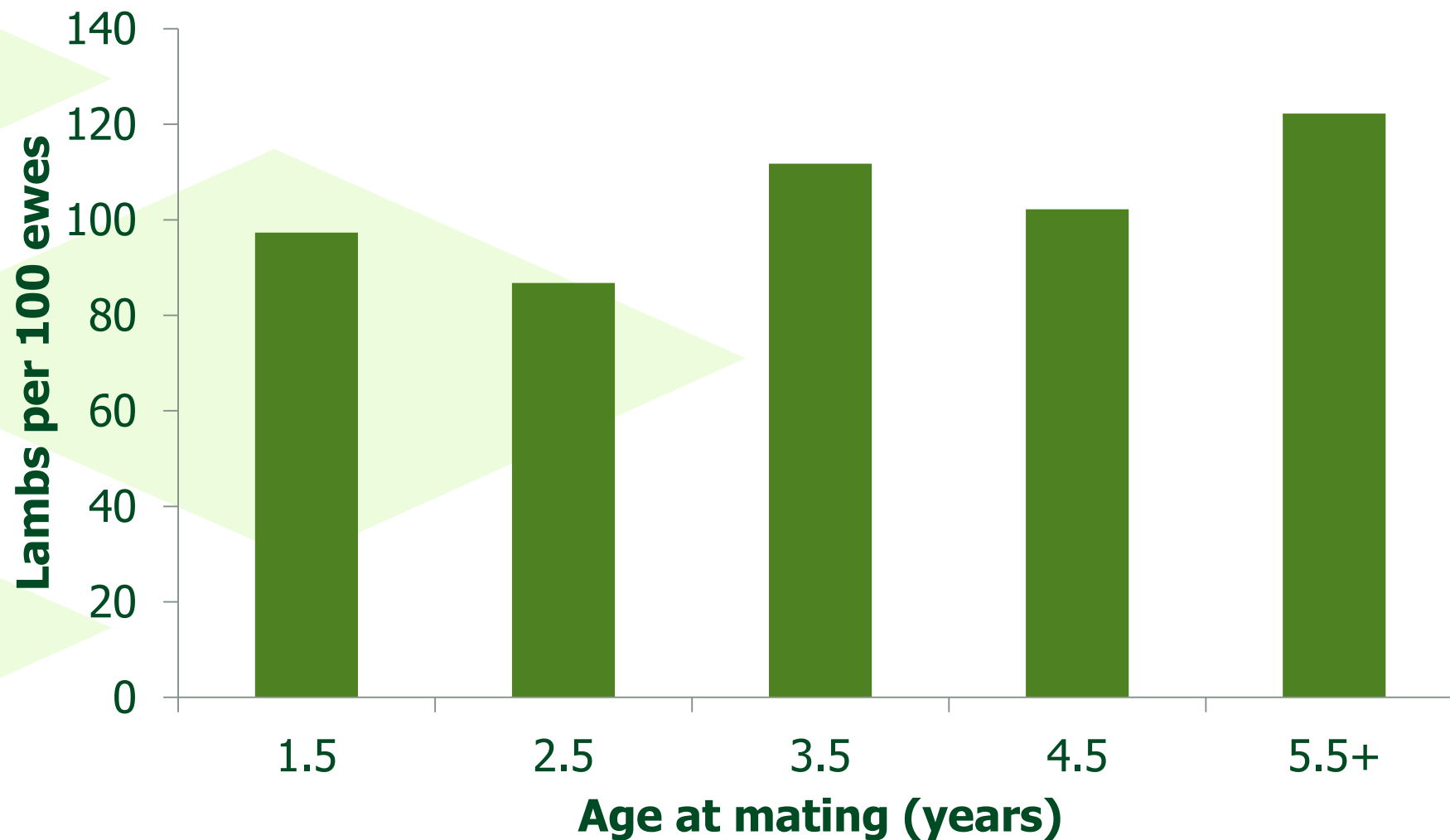
Ewe survival: **to weaning** and **stockdraw**



Performance by age



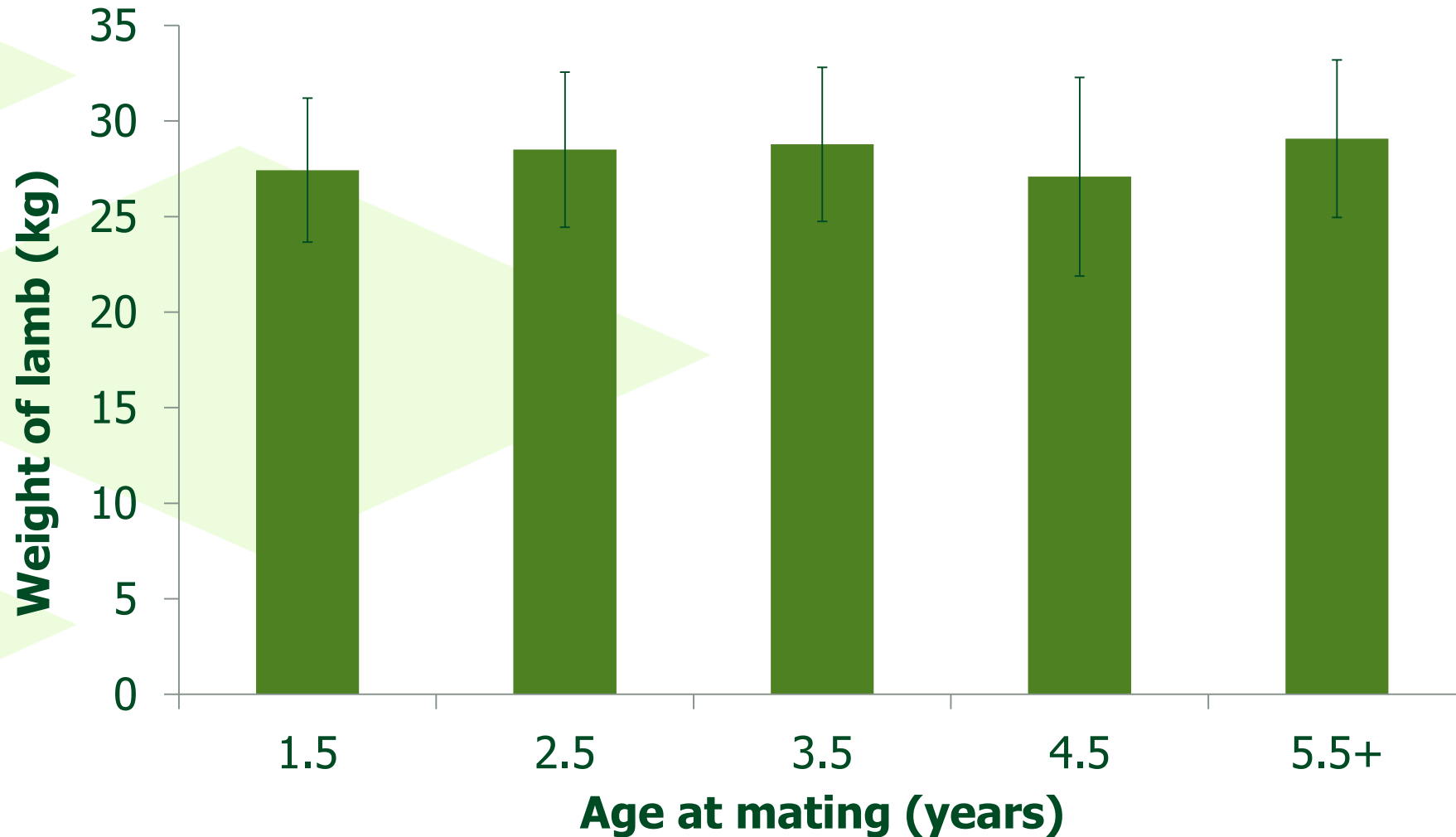
Lambs weaned



Performance by age



Average weight of lamb weaned



Modelled financial margin

- Using flock data
- 2 flocks of 100 ewes each:
 - 4 age group – using 1.5 to 4.5 ages
 - No age limit – using all age groups





Flock structure	
4 age group	No age limit

Production values		
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Number of unsound ewes sold	17	22
Number of sound ewes sold	8	0
Number of replacements required	30	27
Number of lambs weaned	100	102
Number of ewe lambs to sell	20	24

Income		
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Unsound ewes sold @ £32.78 each	£ 557.26	£ 721.16
Sound ewes sold @ £68.00 each	£ 544.00	£ 0.00
Ewe lambs sold @ £74 each	£ 1,480.00	£ 1,776.00
...
Total Income	£ 4,831.26	£ 4,792.16

Outgoing		
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Replacement management @ £18.02 each	-£ 540.60	-£ 486.54
...
Total Outgoing	-£ 1,067.96	-£ 1,019.66

£9.20 per 100 ewes

Margin	£ 3,763.30	£ 3,772.50
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Modelled financial margin

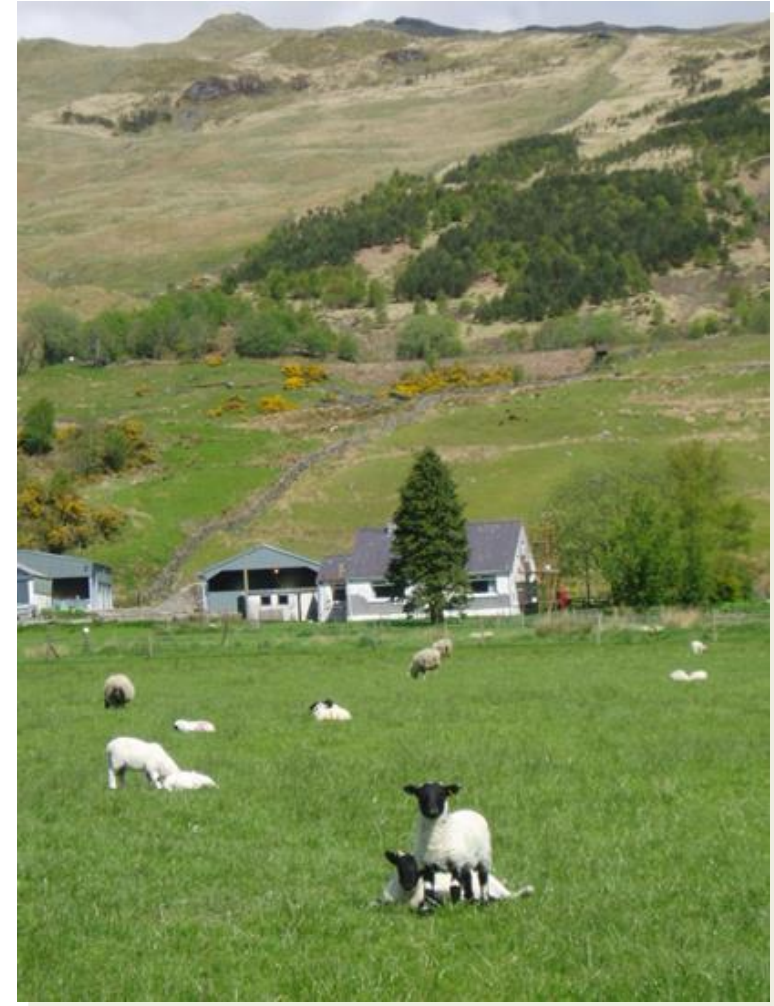
- Using flock data
- 2 flocks of 100 ewes each:
 - 4 age group – using 1.5 to 4.5 ages
 - No age limit – using all age groups
- **+£9.20** per 100 ewes for No age limit
 - Less replacements
 - More lamb weaned

More lambs sold



Conclusions

- UK Hill/Mountain flocks still cull based on age
 - But not all of them
- Performance of aged ewes as good or better than younger ewes for:
 - Survival
 - Lambs weaned
 - Weight of lambs weaned
- Potential financial benefit to retain aged ewes on farm





Thanks to:



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Auchtertyre Farms.