



The cost of Commoning on Dartmoor -2022

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Background to the data

Data was collected from fifteen farms who graze livestock on Dartmoor Common land. Fourteen farms kept cattle, fourteen farm kept sheep and seven farms kept ponies. As compared to the farms who provided data for 2021 one was replaced by a similar size and type of farm due to personal reasons.

The majority of these farms were of mixed tenure with both owner occupied and tenanted land. The total farmed area of these farms was 6,727 hectares with more than half being rough grazing.

For 2022, on average, these farms kept 2,242 suckler cows and 13,272 ewes. 70% of the cows and 79% of the ewes graze the Commons. The livestock are grazed on the Commons for only part of the year so estimates are required to cover the periods they are grazing in-by land and when feeding on winter forage. Under Environmental Scheme and other regulations livestock need to be removed for the winter months hence high costs for labour, machinery and buildings.

The costs and output from the livestock grazing the Commons was recorded but standard costs were used where necessary. These standards were calculated using data, principally, from the Farm Business Survey for Less Favoured Area South West of England farms. The details of these estimate are shown in Appendix 1.

The variable costs are those costs which are directly allocatable to the livestock grazing the Commons, brief descriptions are given in Appendix 1. Home grown forage costs are estimates of own grazing and conserved forage, based on per week or big bale equivalents. It was considered too difficult to produce individual per farm figures for these costs.

As is already known and accepted, fixed costs are much more difficult to allocate to individual enterprises, particularly these enterprises, which are based part on the common and part in-bye. Thus, these are based mainly on estimates, as shown in Appendix 1.

A number of the General farming costs have not been included within the scope of this project. These can be split into three broad types-

1. Water, electric and other general farm costs (55%)
2. Bank charges and professional fees (25%)
3. Share in interest payments (20%)

Data collected for the Farm Business Survey (FBS) for the crop year 2021 for the Less Favoured Area farms in South West England indicated that these costs amounted to £11,600 for the average farm. The whole farm business covers a number of different income strands that include agri-environmental schemes, diversifications and the Basic Payment Scheme as well as the agricultural strand. The FBS data for 2021 gives a breakdown of the fixed costs using an econometric analysis and 83% of the General farming costs are allocated to agriculture. Spreading this cost over the livestock units kept would add £103 per head extra costs to the cows and for the ewes an extra £10 per head.

Two other business costs also need consideration but have not been included in these calculations, rent and fencing costs.

The costs of spreading FYM and/or slurry is not included within these calculations with any costs off set by the fertiliser/manurial value of the product.

All the data relates to each calendar year and the averages shown are for the whole sample and weighted by the average number of relevant animals.

Results

As compared to 2021 the costs in 2022 were higher due to inflation and the 'energy' crisis caused by world events. The price of fertiliser and gas oil, in particular, were substantially higher.

The market prices for cattle improved so the output increased but with the large increase in costs the margin fell by £15 per cow.

Per average breeding animal (£)	Cows	
	2021	2022
Purchases concentrates	53.8	45.7
Purchased fodder	33.8	31.3
Home-grown fodder	219.3	270.0
Vet & Medicine	14.0	14.0
Other livestock costs	55.5	54.2
TOTAL VARIABLE COSTS	376.3	415.2
Labour- paid	4.9	5.7
Labour- unpaid	150.6	163.4
ATV	30.3	32.0
Feeding machinery	107.8	120.1
Own haulage	2.6	6.9
Share of buildings/fixtures	40.8	38.4
TOTAL FIXED COSTS	337.0	366.5
TOTAL COSTS	713.3	781.8
OUTPUT	376.5	429.5
MARGIN	-336.8	-352.2

The totals may not balance due to rounding

In 2022, the average number of cows increased by 6% but the total number of births was nearly the same, with the average calving rate of 83%.

The average number of ewes kept was similar in 2021 and 2022 but the lambing percentage fell by 3% to 95% in 2022.

The value of lambs increased in 2022 hence the improvement in output but the margin fell by £3.1 with the increase in costs.

Per average breeding animal (£)	Ewes	
	2021	2022
Purchases concentrates	1.0	1.2
Purchased fodder	0.1	0.2
Home-grown fodder	4.0	6.3
Vet & Medicine	3.6	4.1
Other livestock costs	5.8	5.9
TOTAL VARIABLE COSTS	14.6	17.8
Labour- paid	0.1	0.4
Labour- unpaid	21.8	23.6
ATV	7.9	9.0
Feeding machinery	0.2	0.2
Own haulage	0.8	1.2
Share of buildings/fixtures	1.4	1.4
TOTAL FIXED COSTS	32.3	35.8
TOTAL COSTS	46.9	53.6
OUTPUT	31.0	34.6
MARGIN	-15.9	-19.0

The totals may not balance due to rounding

In 2022 there was a reduction in the number of ponies kept and there were fewer births, which along with a reduction in the average value of the progeny led to a fall in output, as compared to 2021. The small sample size of the farms keeping ponies means interpretation of these results needs careful consideration.

Per average breeding animal (£)	Mares	
	2021	2022
Purchases concentrates	0.0	0.0
Purchased fodder	2.9	3.4
Home-grown fodder	3.3	6.4
Vet & Medicine	1.4	1.5
Other livestock costs	8.8	10.0
TOTAL VARIABLE COSTS	16.5	21.4
Labour- paid	0.0	0.0
Labour- unpaid	22.9	24.7
ATV	10.0	11.2
Feeding machinery	0.0	0.0
Own haulage	0.0	0.0
Share of buildings/fixtures	0.5	0.0
TOTAL FIXED COSTS	33.3	35.9
TOTAL COSTS	49.8	57.2
OUTPUT	74.2	54.4
MARGIN	24.4	-2.8

The totals may not balance due to rounding

Appendix 1

Costs

Purchased concentrates- includes feed blocks/buckets as well as rolls/nuts/minerals

Purchased forage- includes hay, big bale and clamp silages

Homegrown feed- the in-bye grazing is estimated as-

	2021	2022
	£ per week	
Cows	2.84	3.55
Other cattle	1.78	1.96
Ewes	0.24	0.26
Ewe hogs	0.18	0.20
Lambs	0.12	0.13
Ponies	0.65	0.70

These estimates cover the costs of production of the grass based on historic data but does not cover any fixed costs.

The costs of a bale of big bale silage was estimated to be £19 per bale for 2021 and £24 per bale in 2022, which covers all the variable costs of producing the grass and an element of fixed costs to make the conserved grass, particularly contracting costs. Hay is estimated to cost £22 per big bale for 2021 and £27.50 in 2022.

Vet & Medicine- covers all treatments given to the livestock using the commons including vaccines, anthelmintic and dips

Other livestock costs- includes any bedding used by the livestock grazing the Commons, fallen stock, ear tags, scanning, shearing and a share of the dogs kept for livestock husbandry.

Labour- an estimate of the work done to keep these specific livestock at either the cost per hour as with paid labour or at a standard £12.10 for unpaid labour which is close to the manual only labour rate used in the Farm Business Survey. The equivalent figure used for 2021 was £11.50 per hour.

ATV- an estimated cost is used for each hour ATVs are used in the husbandry of the livestock on the Commons. This standard cost covers the cost of fuel, repairs and depreciation of a machine and was estimated to be £6.40 per hour for 2021 and £7.00 for 2022.

Feeding machinery- an estimated cost is used for each hour machinery is used to feed the livestock on the Commons. This is particularly important during the winter when the livestock were housed. This standard cost covers the cost of fuel, repairs and depreciation of a tractor and loader and was estimated to be £18.00 per hour for 2021 and £21.50 for 2022. The labour needed is included elsewhere.

Own haulage- an estimated cost is used for each mile a truck and livestock trailer are used in the husbandry of the livestock on the Commons. This standard cost covers the cost of fuel, repairs and

depreciation of a machine and was estimated to be £0.70 per mile for 2021 and £0.76 per mile for 2022.

Share of building and fixture costs- an estimate of the costs of buildings and fixtures has been calculated by dividing the capital cost of providing by its expected life. For buildings the expected life has been assumed to be 30 years and fixtures a 10 year life. The buildings include housing and forage storage. The fixtures include handling facilities including races and crushes. For buildings and equipment that are over their life expectancy the cost has still been included with the likely repair cost replacing the depreciation cost. Most of the farmers with buildings on tenanted land will have been constructed by the tenant or a major contribution into the capital cost will have been made by the tenant so this approach still seems valid. If wintering facilities for these livestock are rented separately from land the share of the cost is included within this cost heading.

Output

The output calculation includes both the value of the progeny and a depreciation cost for the breeding males and females.

The share of any breeding bulls, rams and stallions is calculated by taking the difference between the purchase (or transfer in) and sale (or transfer out) prices during the year, changes to valuation based on numbers at the beginning and end of the year which will also have an element of mortality. A similar calculation for the female breeding stock and replacement animals grazing the commons resulted in the cost of £35 per cow and £13 per ewe for both male and female depreciation.

The value of calves, lambs and ponies is estimated when these animals are gathered off the Commons in late summer, early autumn or at weaning whichever is earliest. The local store markets for these types of stock are used as a guide to these values.

Margin

The margin is the difference between the output and costs.

As already noted, there are a number of fixed costs which we have not included in these calculations. These include water, electricity, fencing, insurances, professional fees and rent. Estimates of these costs were considered too difficult to allocate to the enterprises using Dartmoor Commons but are significant, particularly for those businesses dominated by the need to graze the Dartmoor Commons.