

## Signet Top Ram Report

### The Importance of Breeding

When selecting breeding stock it is important to identify animals with superior breeding potential, but this is difficult without access to performance records.

### The Signet Sheepbreeder Service

Pedigree and Performance data collected and stored on the Signet Sheepbreeder database is analysed using a procedure called BLUP (Best Linear Unbiased Predictor). BLUP calculates how much of each animal's performance is due to its breeding merit and how much is due to the environment in which it has been raised.

### **Estimated Breeding Values**

Estimated Breeding Values (EBVs) measure the breeding potential of an animal for a specific trait. They are expressed in the same units as the recorded trait (e.g. kg for eight week weight) and relate to a common baseline of zero, which was the average breeding value when across flock evaluations began.

A recorded ram will only pass on half of his genes to his lambs so his EBVs must be halved in order to estimate the average genetic worth of his progeny. EBVs are easy to interpret, for example:

*A ram with an EBV of +4 for 8 week weight is predicted to have the genetic potential to be 4kg heavier at 8 weeks of age compared to a ram with an EBV of 0*

### **Breeding Indexes**

Whilst EBVs aid the selection of sheep for specific traits they can also be combined into indexes to breed for a specific breeding objective.

### **Accuracy Values**

Accuracy values are printed beside each EBV. These figures, which range between 0 and 99, indicate how close an animal's EBV is to its true breeding value.

### Using this Report

This report comprises of raw data and EBVs. Whilst raw data is always of interest, because pedigree sheep are reared in different ways it can make comparisons between individuals reared in different flocks misleading. EBVs provide the only accurate way of comparing the breeding potential of lambs bred in different flocks.

When using this report remember that it is still important to undertake a physical assessment of any ram that you are considering buying. When selecting a ram take into account other features such as fertility and locomotion, and check the pedigree of the animal to avoid inbreeding.

### **Estimated Breeding Values**

- 8 Week Weight EBV (kg) - Selection on high EBVs for 8-week weight will result in faster growing lambs to weaning.
- Litter Size EBV (lambs/ ewe) - Selection on high positive figures will increase the number of lambs born in the flock.
- Maternal Ability EBV (kg) - This is the maternal component of the 8-week weight measurement. High figures indicate breeding lines where females perform well as mothers - maternal care and milking ability.
- Scan Weight EBV (kg) - Selection on this trait will increase growth rate to scanning (21 weeks of age).
- Muscle Depth EBV (mm) - Choosing animals with high muscle depth EBVs will increase lamb muscularity and hence the lean meat content of the carcass.
- Fat Depth EBV (mm) - Selection for negative fat depth EBVs will reduce fat levels in the carcass or enable lambs to be taken to greater carcass weights without becoming over fat.
- Breeding Index - Calculated using EBVs to rank animals for a specific breeding objective

Identity	ET Y/N	Date of Birth	Sire Identity	Adj' 8wk weight (kg)	Scan Age	Scan weight (kg)	Musc' Depth (mm)	Fat Depth (mm)	8 Week Weight		Litter Size		Maternal Ability		Scan Weight		Muscle Depth		Fat Depth		Index	
									EBV	Acc	EBV	Acc	EBV	Acc	EBV	Acc	EBV	Acc	EBV	Acc	EBV	Acc
<b>Breeder: Campbell W Tweed</b>										<b>Tel: 028 2858 3405</b>						<b>Signet Membership Number: 22626</b>						
UK 1 760389 370	N	12/04/2018	UK 1 760389 300	30.6	130	47.0	0.0	0.0	3.54	59	0.23	56	1.83	59	8.32	69	1.49	47	0.50	46	304	59
UK 1 760389 370	N	22/04/2018	UK 1 760389 300	20.2	143	35.5	0.0	0.0	1.82	62	0.21	52	1.72	62	5.91	71	1.44	48	0.38	49	267	59
UK 1 760389 370	N	22/04/2018	UK 1 760389 300	17.7	143	32.0	0.0	0.0	1.45	62	0.19	52	1.65	62	5.01	71	1.33	48	0.34	49	246	59
UK 1 760389 359	N	25/04/2018	UK 1 760389 095	26.1	140	41.0	0.0	0.0	1.57	58	0.19	49	1.39	58	5.66	69	0.85	47	0.35	44	242	56
UK 1 760389 430	N	30/04/2018	UK 1 760389 327	21.4	114	37.5	0.0	0.0	1.50	56	0.19	46	1.37	56	5.04	67	1.19	44	0.16	41	241	54
<b>Breeder: BM &amp; ES Sangster</b>										<b>Tel: 01890 771926</b>						<b>Signet Membership Number: 30003</b>						
UK 0 565497 017	N	21/04/2018	UK 0 107740 001	22.9	132	43.2	27.4	1.7	1.21	65	0.22	60	1.14	65	3.96	73	1.55	73	-0.16	66	239	67
UK 0 565497 017	N	19/04/2018	UK 0 565497 004	24.8	134	40.4	29.3	1.8	0.74	60	0.18	48	1.11	60	2.37	71	2.31	73	0.03	64	217	61
UK 0 565497 018	N	24/04/2018	UK 0 565497 004	22.7	129	37.8	21.9	0.8	0.98	62	0.19	54	1.56	62	3.66	73	0.19	73	-0.19	65	213	64
UK 0 565497 018	N	22/04/2018	UK 0 743776 008	23.0	131	41.0	27.1	2.0	0.74	58	0.18	41	0.79	58	2.57	71	2.17	73	0.03	64	210	58
UK 0 565497 017	N	07/04/2018	UK 0 565497 004	20.8	146	42.6	24.0	3.0	0.78	61	0.17	50	1.15	61	3.29	71	0.54	72	0.01	64	199	62
<b>Breeder: Mr J G &amp; S C Jones</b>										<b>Tel: 01545 590223</b>						<b>Signet Membership Number: 30806</b>						
UK 0 743062 022	N	18/03/2018	UK 0 561602 079	22.2	153	38.5	24.0	4.1	0.88	56	0.06	40	0.55	56	3.30	69	1.12	70	0.52	61	155	56
UK 0 743062 022	N	20/03/2018	UK 0 561602 079	19.5	151	29.5	19.1	1.9	0.65	56	0.06	41	0.83	56	2.24	69	0.16	70	0.22	61	137	56
UK 0 743062 022	N	19/03/2018	UK 0 561602 079	17.4	152	32.0	21.6	2.4	0.42	59	0.04	44	0.45	59	2.10	70	0.87	70	0.34	61	131	58
UK 0 743062 022	N	22/03/2018	UK 0 561602 079	19.5	149	28.5	23.2	1.3	0.36	60	0.05	44	0.38	60	1.16	71	1.50	70	0.26	62	130	59
UK 0 743062 024	N	17/04/2018	-	20.8	123	30.5	18.7	1.2	0.59	46	0.05	40	0.45	46	2.26	59	-0.07	57	0.11	45	125	49
<b>Breeder: P &amp; Y Jones</b>										<b>Tel: 07783 332054</b>						<b>Signet Membership Number: 30854</b>						
UK 0 547829 007	N	09/04/2018	UK 0 375286 004	21.5	143	36.0	0.0	0.0	0.83	56	0.09	51	0.68	56	2.60	68	0.12	29	0.10	34	149	54
UK 0 547829 007	N	29/04/2018	UK 0 561602 082	18.6	123	27.5	0.0	0.0	0.40	59	0.06	43	0.47	59	0.82	69	0.44	37	0.06	41	119	53
UK 0 547829 007	N	11/04/2018	UK 0 375286 004	17.6	141	27.0	0.0	0.0	0.37	56	0.05	51	0.48	56	1.43	68	-0.04	29	0.07	34	115	54
UK 0 547829 007	N	03/05/2018	UK 0 561602 082	19.8	119	25.5	0.0	0.0	0.20	61	0.05	44	0.53	61	0.33	70	0.03	37	0.05	41	102	54
UK 0 547829 007	N	11/04/2018	UK 0 375286 004	16.4	141	28.5	0.0	0.0	0.19	58	0.03	52	0.27	58	1.08	69	-0.07	29	0.07	34	99	55