



The development of muscularity in the Finnsheep population

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Distinguishing features of Finnsheep

Finnsheep belongs to the group of northern short tailed sheep breeds. The tail is always short.

Finnsheep (Finnish Landrace) breed is one of the most prolific sheep breeds in the world.

Sometimes it is possible for a ewe to have up to 9 lambs at one time!

It is quite normal to have 3-4 lambs at one go.

Ewes have an unimaginably large uterus.

Finnsheep has several different colours: white, brown, black, grey



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Feeding

Finnsheep is very demanding on their feeding

The use of low quality pastures (traditional rural biotopes) is recommended for ewes and rams

Young lambs need high quality pastures

Concentrates: peas, rape, beans, soya, oats and barley



Feeding during pregnancy

Good care should be taken to meet the nutritional needs of the ewe and the lambs.

If the ewe has more than 3 lambs number of bottle fed lambs increases.

If not possible to adopt , lambs are moved to an automatic feeder.



Weaning the lambs

Finnsheep ramlambs are sexually mature at about 2-3 months of age - weaning is needed!

Traditionally ewe lambs have spent all summer with their mothers.

Lamb growth per day depends on the quality of the pasture or silage/hay if fed indoors.



Production results, 2015

Older ewes

Breed	Ewes, N	Lamb/ewe	Alive/ewe	Lamb-product	6 wk	Weight kg
Ålandfår	180	2,3	2,1	24	11,28	59
Dorset	123	1,9	1,8	35	20,1	81
Rygja	104	1,7	1,6	28	17,3	
Finnsheep	10 040	2,5	2,2	33	14,5	72
<i>Finnsheep, 1year old</i>	1 705	1,9	1,7	24	13,3	
Texel	1 108	1,6	1,5	29	19,5	85

Production results, 2015

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Lambs, N	5283	4454	5767	6061	3227	4122	4598	5255	6915
Slaughter w., kg	18,4	18,0	18,7	18,8	19,0	19,7	20,1	20,4	20,4
Slaughter %	41	41	42	42	41	42	42	42	42
Growth time, d	206	217	215	228	251	243	246	254	252
Net daily gain, g	83	82	84	80	86	85	87	86	87
E	1	-	1	3	3	1	2	2	1
U	3	4	3	3	3	5	3	4	5
R	17	22	17	17	19	20	22	18	17
O	72	66	74	74	71	71	68	71	69
P	7	7	6	3	4	2	6	6	8

Lambs 3 days weight, 2015

/Lammas & Vuohi, 2016/

	N	kg
All lambs	27 897	4,0
Ålandfår	316	3,2
Dorset	160	5,8
Gåtlandfår	30	5,8
Rygja	157	5,1
Finnsheep	17 935	3,6
Texel	1 934	5,4
Oxford Down	517	5,4

6 weeks weight, 2015

/Lammas & Vuohi, 2015/

	N	Average
All lambs	17 411	14,7
Ålandfår	190	10,2
Dorset	155	19,6
Rygja	151	17,0
<u>Finnsheep</u>	<u>10 923</u>	<u>13,9</u>
Texel	1 301	18,7
Oxford down	492	18,7

4 months weight, 2015

/Lammas & Vuohi, 2015/

	N	Average weight, kg
All lambs	17 355	33,1
Alandfår	218	23,2
Dorset	153	38,6
Rygja	88	37,7
Finnsheep	10 557	32,4
Texel	1 480	37,3
Oxford down	501	38,0

Estimated Breeding Value (EBV) system in Finland

M.L.Sevon–Aimonen, 2011, Jokioinen MTT

Meat production EBV is a combination of:

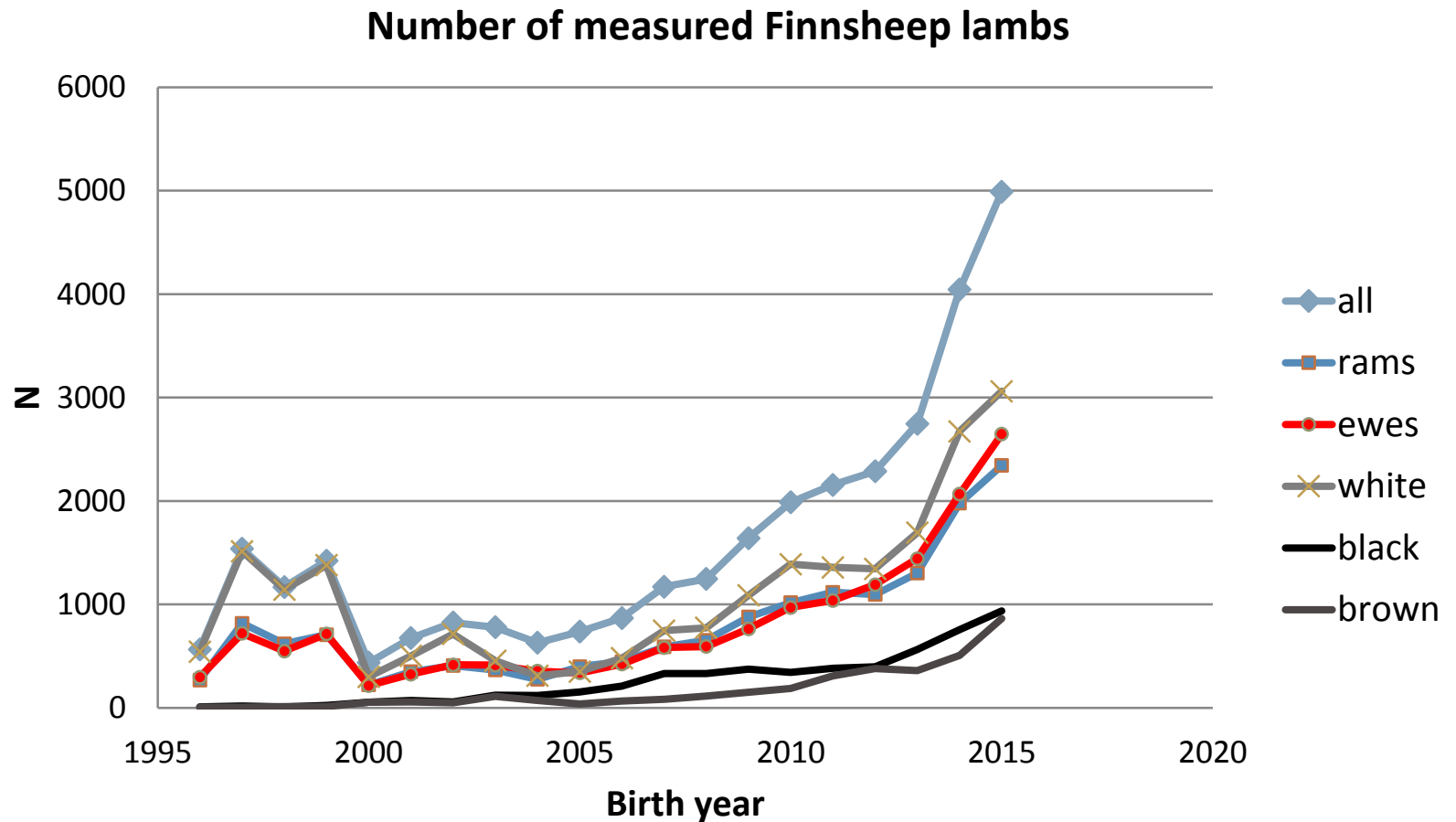
120 days` weight	40 %
Depth of spinal muscle	50 %
Depth of spinal fat	10 %

There are also EBV's for **growth, muscularity, fattiness and live-EUROP conformation.**

Aim of the breeding is to improve net daily growth as well as muscularity of the carcass without adding bodyfat.

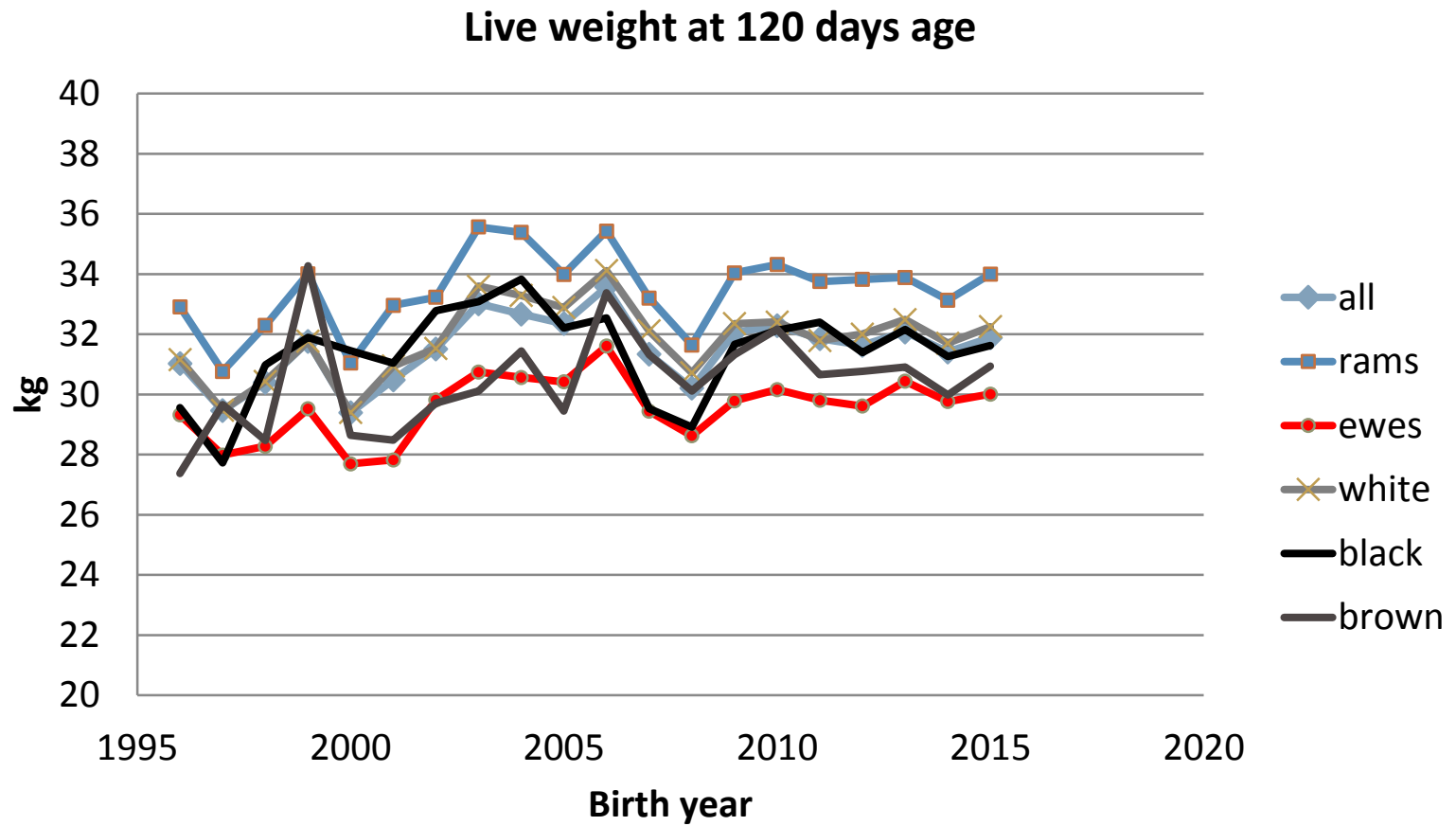
The amount of data for the study

M.L.Sevon–Aimonen, 2016, Jokioinen Luke



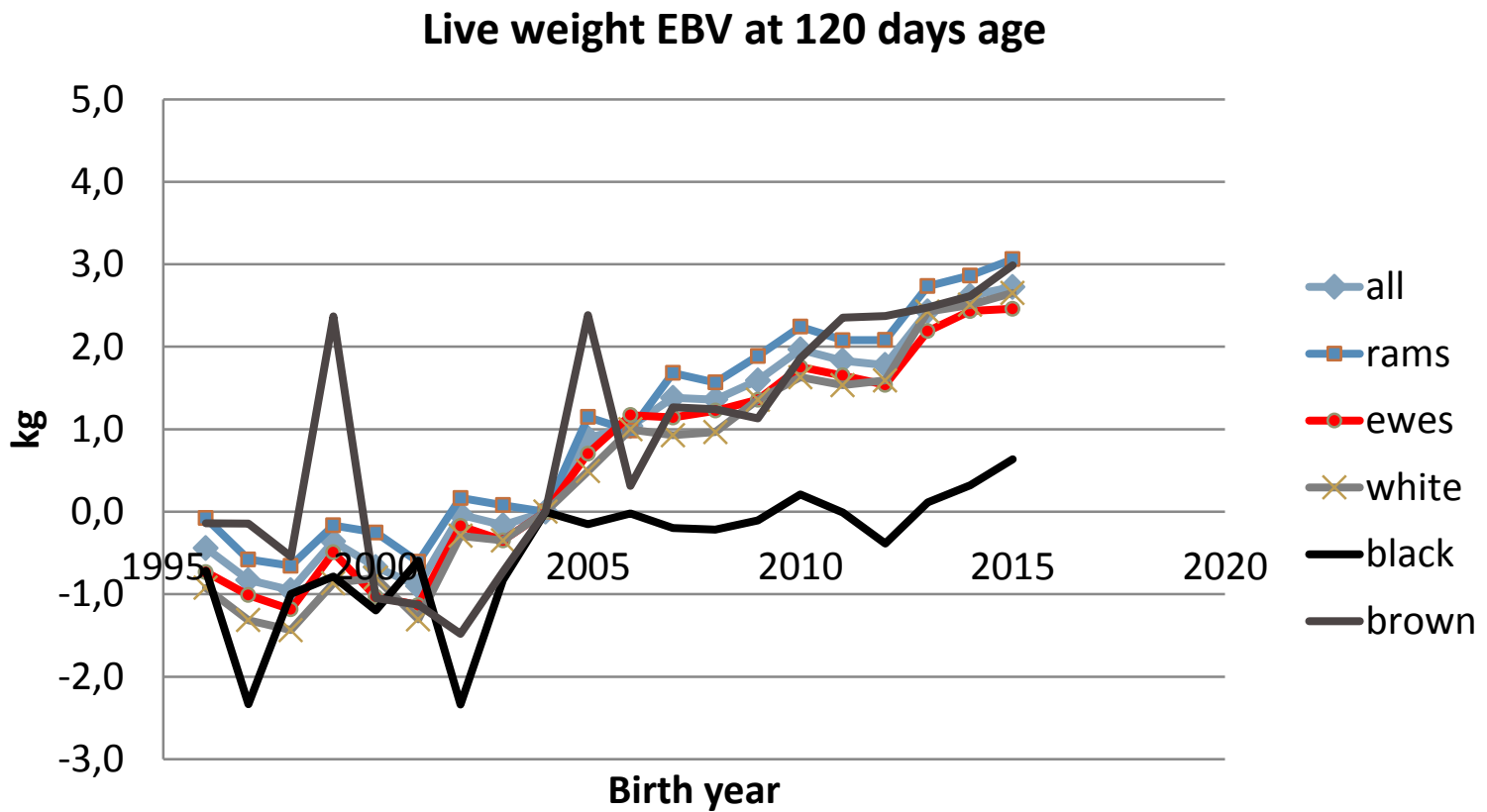
Phenotypic development in four months weight

M.L.Sevon-Aimonen, 2016, Jokioinen Luke



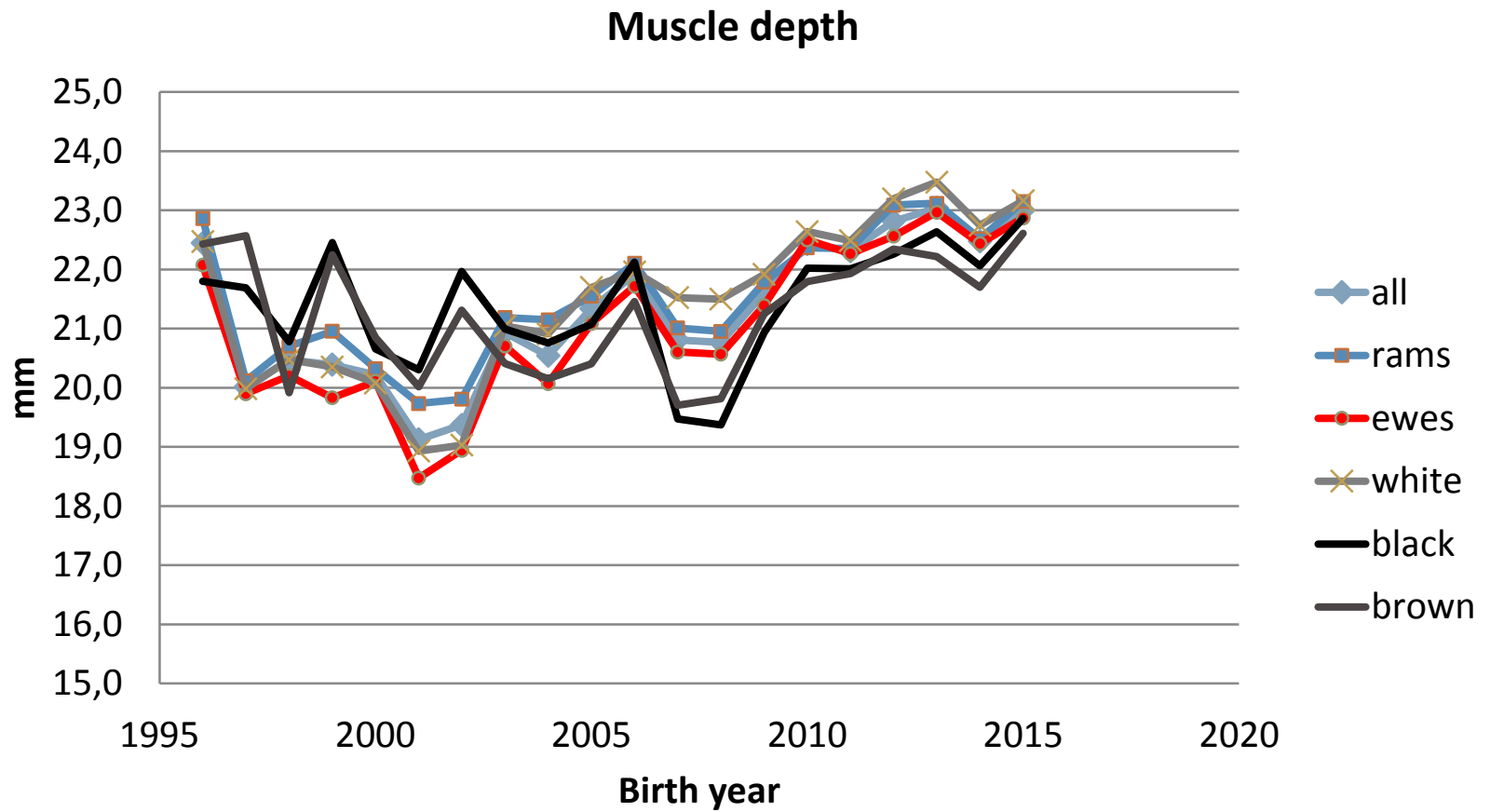
Genetic development in four months weight

M.L.Sevon –Aimonen, 2016, Jokioinen MTT



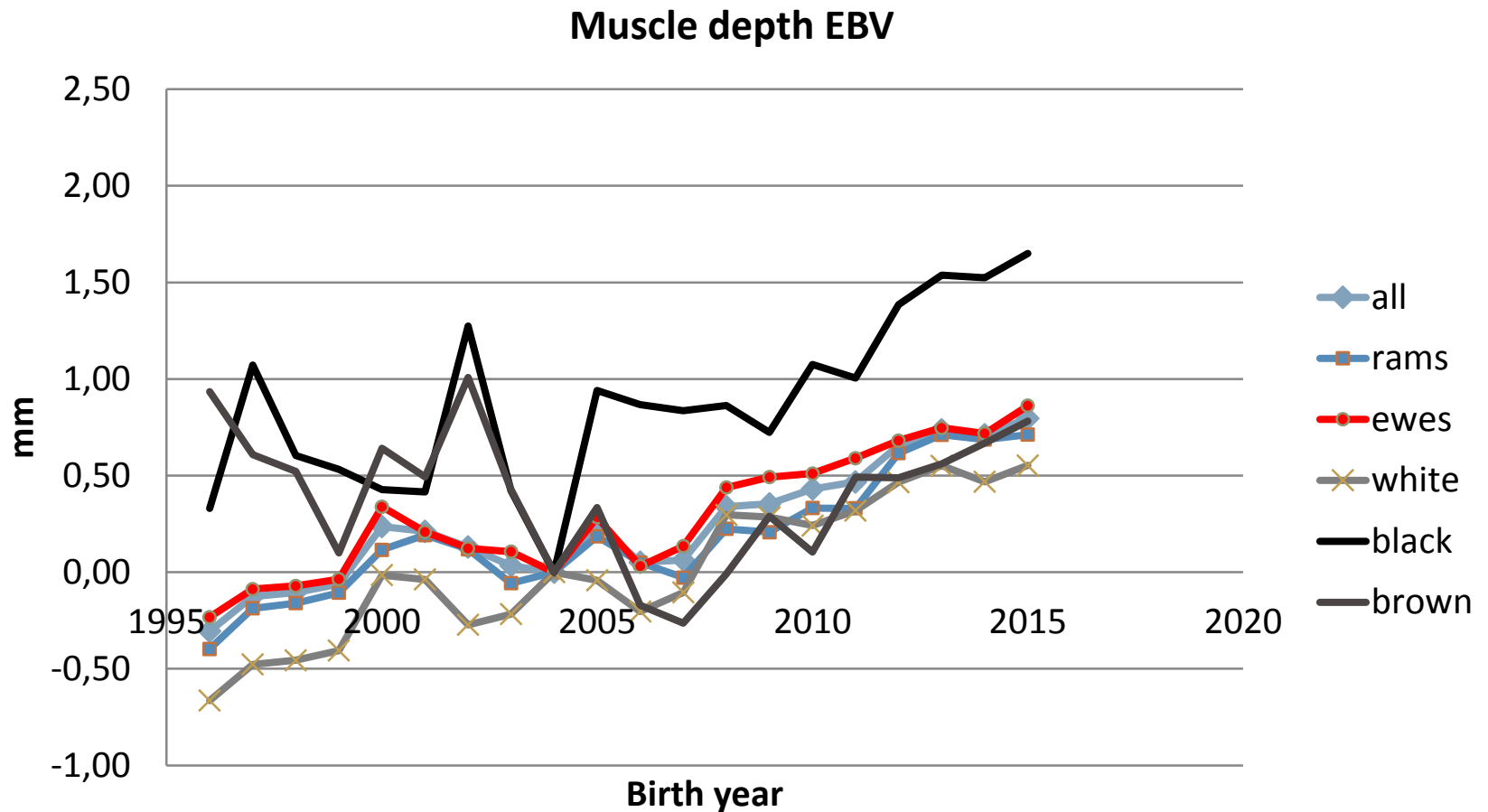
Phenotypic development in muscle depth

M.L.Sevon–Aimonen, 2016, Jokioinen Luke



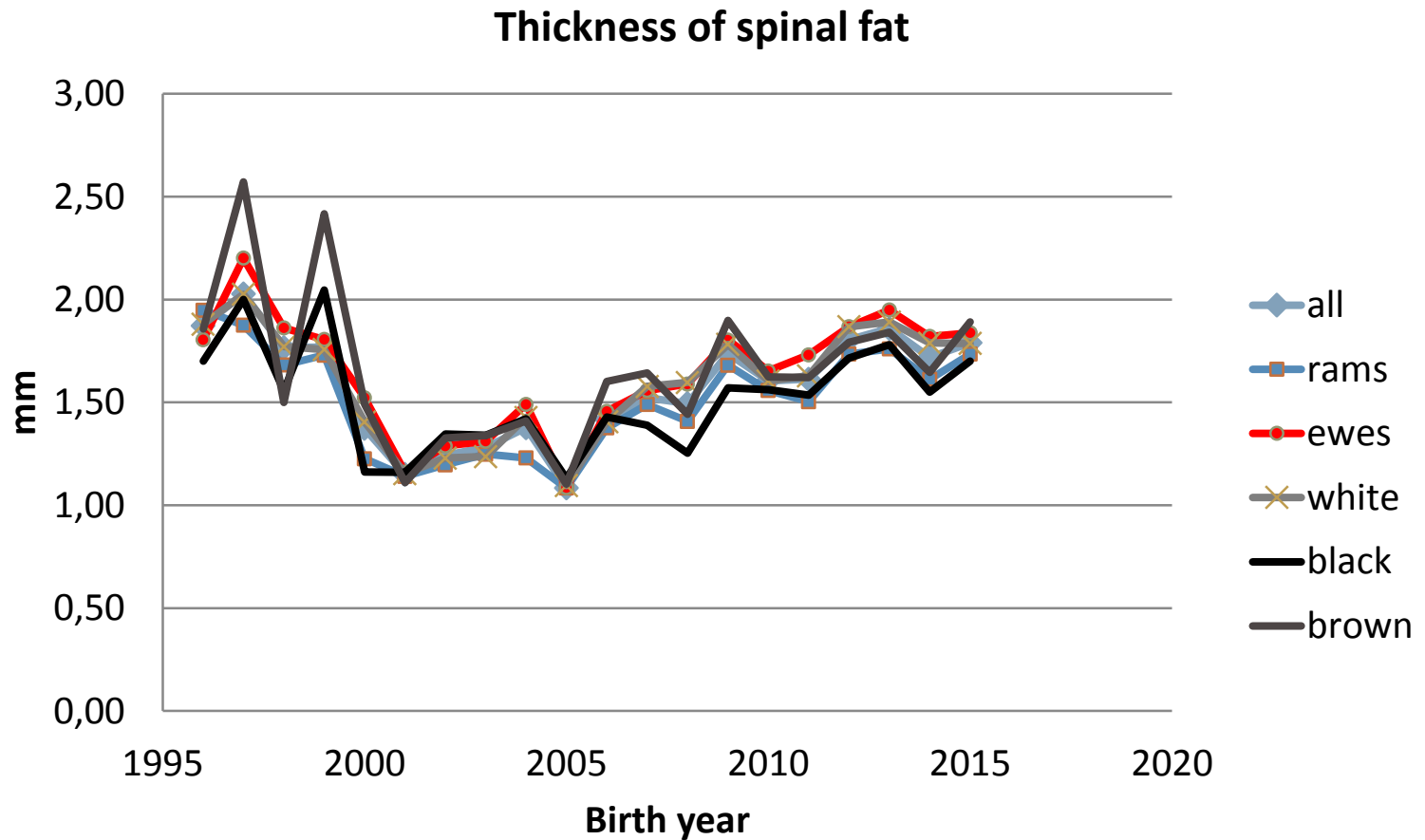
Genetic development in muscle depth

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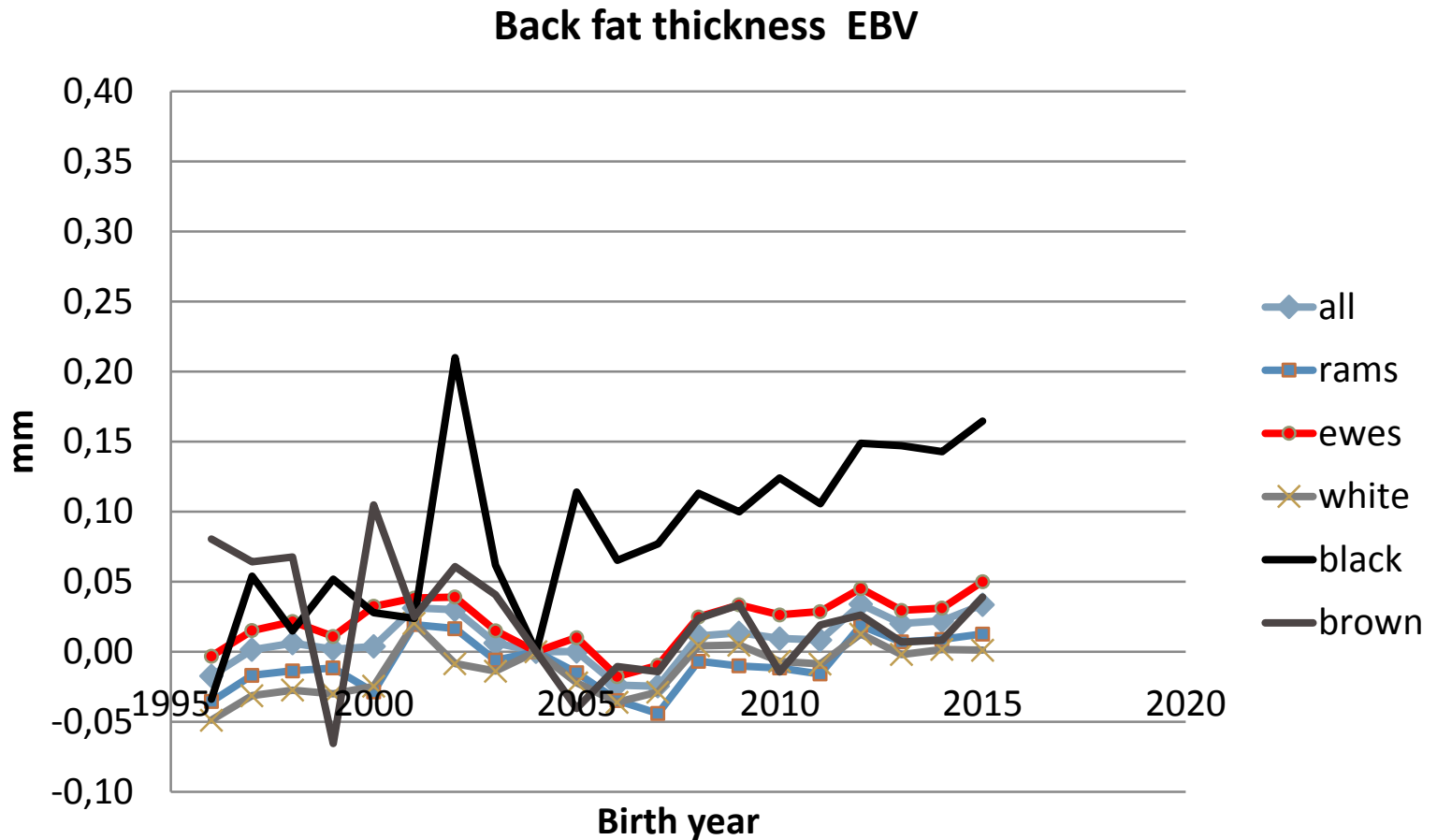
Phenotypic development in spinal fat

M.L.Sevon-Aimonen, 2016, Jokioinen Luke



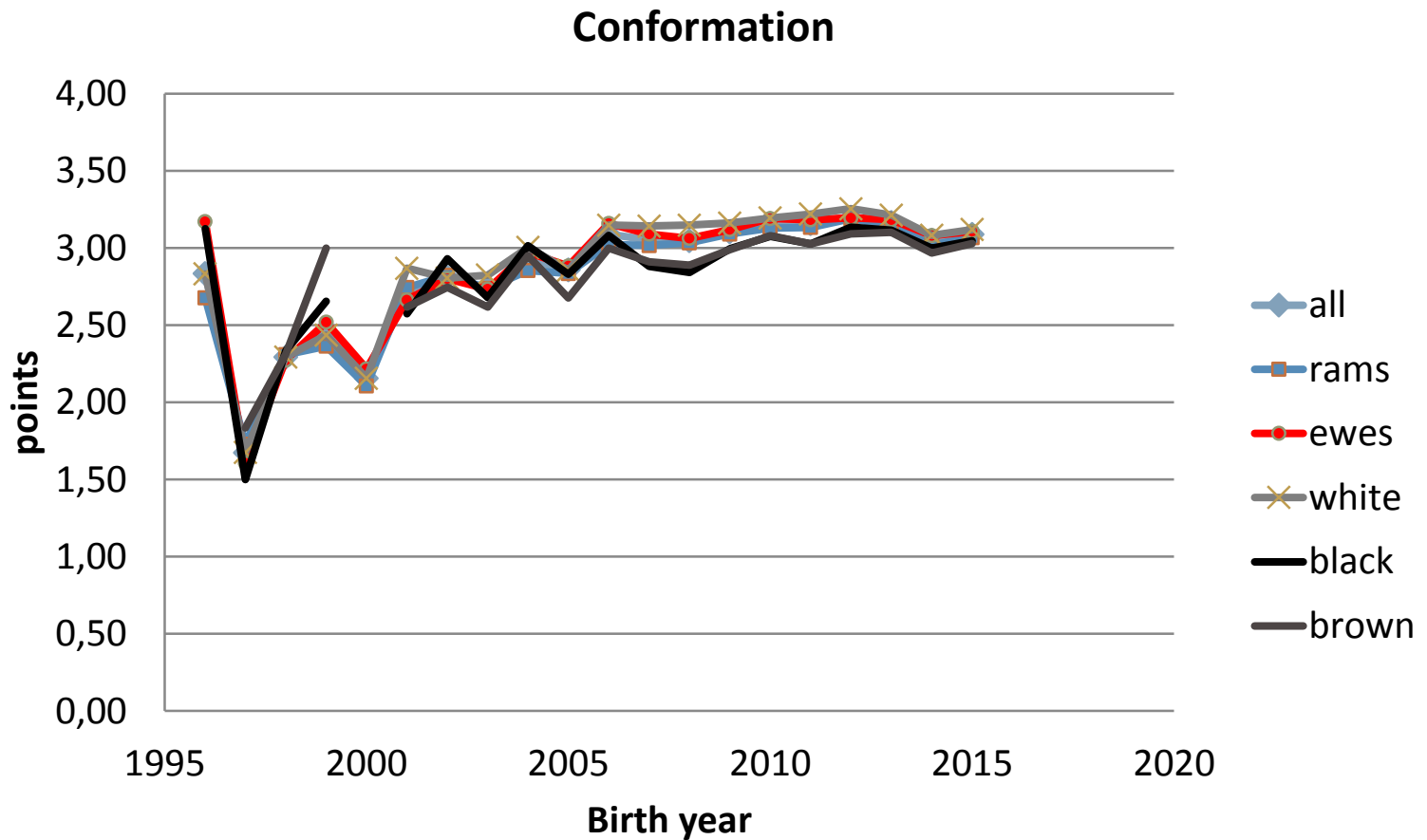
Genetic development in spinal fat

M.L.Sevon –Aimonen, 2016, Jokioinen MTT



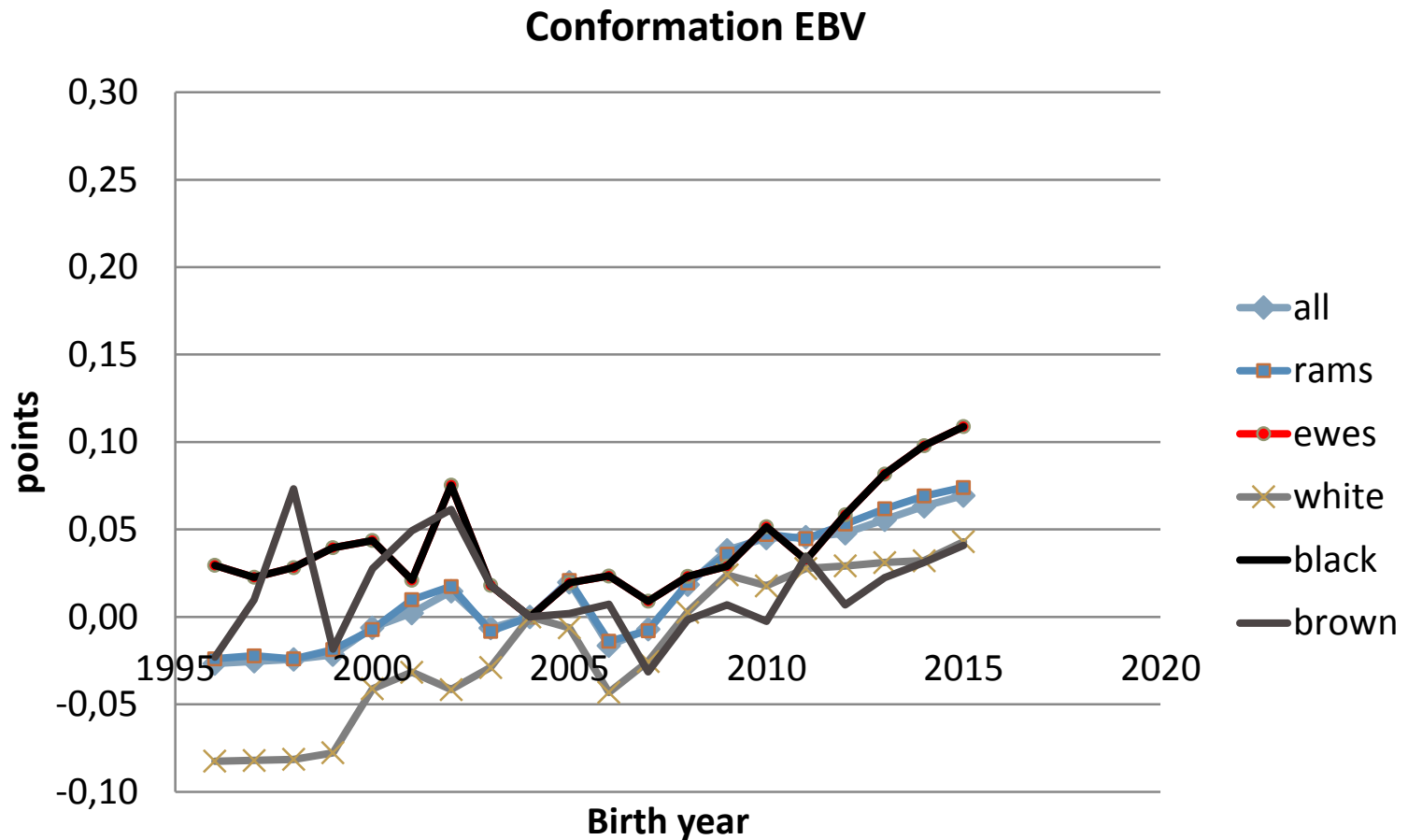
Phenotypic development of conformation

M.L.Sevon–Aimonen, 2016, Jokioinen Luke



Genetic development in conformation

M.L.Sevon –Aimonen, 2016, Jokioinen MTT



Breeding Finnsheep

The Finnsheep herdbook was found in 1922.

Different traits for breeding:

Growth

Lambproduction

Fertility

Adult weight

Conformation

Carcass quality

Wool



1950 vs.1995

Ranking class	1950	1995	1950	1995
	Under 2 years age	Under 2 years age	Over 2 years age	Over 2 years age
Rams weight	At least, kg	At least, kg	At least, kg	At least, kg
I	55	80	65	95
II	50	75	60	85
III	45	65	55	75
Ewes, weight				
I	45	60	50	70
II	40	55	45	65
III	35	50	40	55

Measurements

Average measurements of 16
Lihaslula Foundation breeding
rams:

Length 82 cm

Chest 28 cm

Depth 36 cm

Loins 16cm

Hidepart 29cm

Height 67cm

Testicles 35 cm

Bodyweight in August 104 kg



Fertility is a very important trait

Ranking classification

- I > 2,5 lambs
per ewe per
lambing
- II 2 lambs
- III 1,5 lambs





21. Elmeri Lihasula

Born 26.03.2011, meat production EBV 118, FI000002515551



6. HEPPU



6. HEPPU'S WOOL



30. PARIKAN AGENTTI 007, 8 MONTHS

Slaughter – rams

Kaitamäki



The Finnsheep ewes

Rintala





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Rams

Tiitola farm



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Conclusions

Breeding The Finnsheep for meat production is economically feasible:

Special flavour of the meat

Litter sizes compensate for lower slaughter weight

Very suitable for grazing traditional rural biotopes and islands

Wool is fine and of a good lustre, ideally suited for handicraft as well as the skin.

Thank You for listening

