ANIMALIA
Norwegian Meat and Poultry Research Centre

THE NORWEGIAN SHEEP RECORDING SYSTEM

A SYSTEM MADE FOR FARMERS, BY FARMERS

Norway has a long tradition collecting performance data from herds through an animal recording system. The Norwegian Sheep Recording System was established in the 1950's. It all started with farm advisors recording performance on individual animals during a farm visit and later entering these into a central computer. Today the farmer has access to a web client and an app for mobile units, enabling them to report and analyze their own herd data 24/7.

Participation in the The Norwegian Sheep Recording System is voluntary. There are few rules as to what farmers have to register. The minimum requirements are; lambs born every year, culled and dead animals, plus autumn weight on all lambs. If you participate in a ram circle, some more rules apply. The abattoirs record the slaughter data. These are automatically sent to the central database. The farmer may register different types of data like mating, health data, pasture information, fetal counts etc.. The more they use the system, the more the system will help them analyze the herd production.

The aim of the Norwegian Sheep Recording System is being a profitable investment for the farmer and the whole sheep industry. The entire sheep industry funds the Norwegian Sheep Recording System. 70 % of the costs are financed by a marketing levy whom all Norwegian Sheep farmers have to pay, 30 % comes from a user fee, approximately 1000 NOK annually or 75 £.

Lambs born, weaned and kg weaned per mated ewe

Year	Nr lambs born		Nr lambs weaned		Weaning weight, kg (corr. to 145 days)		Kg weaned (corr. to 145 days)	
	Total population	Norwegian White Sheep	Total population	Norwegian White Sheep	Total population	Norwegian White Sheep	Total population	Norwegian White Sheep
2000	1,90	1,92	1,63	1,65	44,2	45,0	71,9	74,1
2001	1,93	1,95	1,64	1,67	43,8	44,6	71,9	74,1
2002	1,93	1,95	1,65	1,66	44,5	45,2	73,0	75,1
2003	1,96	1,98	1,65	1,67	43,7	44,4	72,2	74,0
2004	1,98	2,00	1,66	1,70	44,8	45,4	75,6	77,3
2005	2,00	2,02	1,69	1,69	45,1	45,6	75,6	77,0
2006	2,05	2,07	1,68	1,71	44,5	44,9	75,3	76,9
2007	2,05	2,08	1,70	1,74	44,4	45,0	75,8	78,0
2008	2,07	2,11	1,71	1,74	45,5	45,9	77,6	79,6
2009	2,09	2,13	1,71	1,75	44,9	45,4	76,8	79,2
2010	2,10	2,15	1,69	1,75	44,6	45,2	76,1	78,6
2011	2,10	2,14	1,69	1,73	44,6	44,6	74,4	77,0
2012	2,07	2,11	1,68	1,72	44,9	45,5	75,4	78,0
2013	2,11	2,17	1,70	1,74	44,1	44,7	74,9	77,8
2014	2,11	2,17	1,73	1,79	45,6	46,3	78,7	82,4

Herds grouped by different measurement per mated ewe and ranked in 3rds

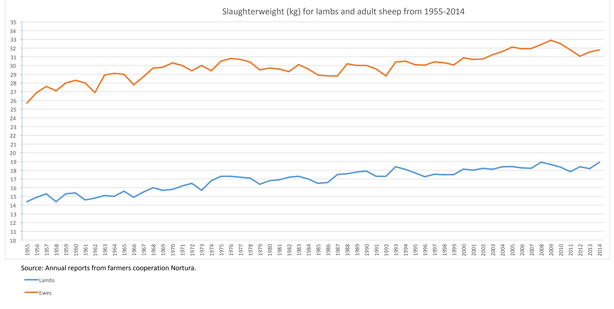
	Top 3rd	Middle 3rd	Lowest 3rd	Average
Nr lambs born	2,39	2,12	1,82	2,11
Nr live born lambs	2,27	2,03	1,76	2,02
Weanded per ewe	2,06	1,79	1,37	1,73
Stillborn, %	1,05	3,67	7,45	4,18
Mortality indoor, %	0,47	2,29	5,97	2,94
Mortality spring pasture, %	0,00	0,31	2,49	0,89
Mortality summer pasture, %	2,02	6,12	21,50	10,16
Totalt mortality, %	7,90	14,18	28,62	17,20

Norwegian White Sheep on mountain pasture

A USEFUL TOOL

One of the main purposes for collecting performance data are animal breeding. When many herds participate and use the same system for their data recording, we are enabled to study the effects of genes and environment. This will in turn result in a controlled and positive genetic progress in the sheep population.

For the farmer, these systems are useful besides animal breeding purposes. It gives the farmer a tool for day-to-day follow up of the herd, keeping track of the animals and their production. This should ease production planning and give the farmer a tool for measuring the herd production. It highlights areas for improvement and gives them a possibility for benchmarking the herd. The system also provides necessary documentation if used to its full potential. In addition these data form the basis for farm advisory services and for improved herd health management.



SHEEP POPULATION

Today approximately 43% of the ewes are registered in the system and around 30% of the sheep farmers participate. These herds are highly productive so almost 49 % of the slaughtered lambs are registered in The Norwegian Sheep Recording System.

There is an active ewe population of >300 000 in the system, giving birth to approximately 600 000 lambs each year. 74% of the ewes are Norwegian White Sheep (NKS), 11% are Norwegian Spælsau. The rest of the population are many different breeds, where 1% is Texel and 0,7% Suffolk. The average herd size in 2014 was 70 ewes.

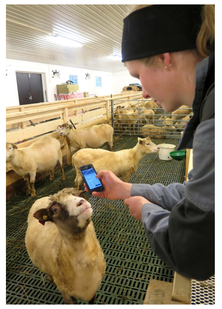
Average production results per mated ewe, 2014

	All breeds	Norwegian White Sheep
Nr ewes included	296 559	219 608
Lambs born (liveborn + stillborn)	2,10	2,17
Liveborn lambs	2,02	2,08
Stillborn, %	4,2	4,4
Lamb mortality indoor, %	2,9	3,1
Lamb mortality spring pasture, %	0,9	0,9
Birth weight, kg	4,8	4,8
Spring weight, kg	18,4	18,6
Autumn weight, kg (uncorr.)	43,8	44,4
Slaughter weight	20,2	20,7
Conformation	R (7,7)	R (8,0)
Fat group	2 (5,4)	2 (5,4)
Growth spring pasture, g/day	338	343
Growth summer pasture, g/day	259	264
Growth birth-weaning, g/day	284	289
Age at weaning	137,5	136,9
Age at slaughter	159,7	
Lambs weaned per ewe	1,70	1,78
Kg weaned per ewe (uncorr.)	71,0	73,5

SYSTEM TO SYSTEM INTEGRATION

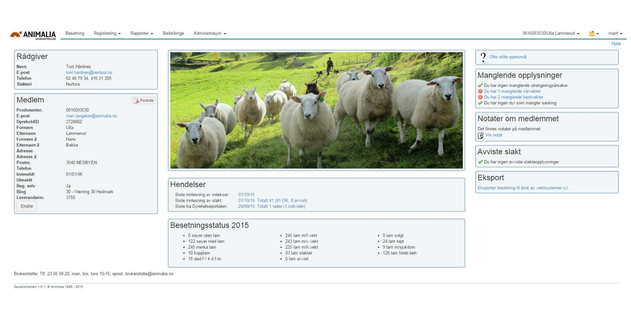
The Norwegian Sheep Recording System is integrated with several other systems both at farm level and the more industrial level. From the abattoirs, data from the EUROP-classification are sent to the central database. These are data on slaughter weight, slaughter date, conformation and fat group. We have these data on nearly all slaughtered lambs. From 2014 we also have data on wool quality and wool amount on approximately 50% of the slaughtered lambs.

The Food Authorities demand that farmers document the use of antibiotics and medicine in their herd. When a veterinarian treats an animal in a herd and then uses the recording system Dyrehelseportalen to report this to the authorities, these data are sent to The Norwegian Sheep Recording System. The figure below presents the different integrations we have today.



The system offers farmers an app for andraid and ios.

Norwegian spælsau ram



In the web client