

## Economic weight of Saved feed in NTM

In February 2025 the Saved feed index was updated and a new breeding evaluation model was introduced. The new model was an improvement of the saved feed index. The economy value per index unit was increasing which affected the weight of saved feed into NTM.

### Economy value of saved feed

For saved feed there are variation between the breeds, meaning that the effect per index unit is different between the breeds. The effect for one index unit on cow level for saved feed:

Holstein: 17.6 kg drymatter per lactation  
 RDC: 20.0 kg drymatter per lactation  
 Jersey: 15.0 kg drymatter per lactation

In the calculation of the economy value the feed price is set to 0.20 Euro pr kg of drymatter and the NTM value is set according to the NTM report from 2018. In table 1 the index value and suggested weight in NTM for saved feed can be seen.

Table 1. Economy value for saved feed and weight in NTM based on the economy value

	HOL	RDC	JER
<b>Kg drymatter per index unit</b>	17,6	20,0	15,0
<b>Value per saved feed index unit, €</b>	3,5	4,0	3,0
<b>Value per NTM index unit, €</b>	9,9	9,2	8,0
<b>Weight in NTM</b>	0,35	0,43	0,38

Value per saved feed index unit, € = Kg drymatter per index unit \* 0.20 Euro per kg drymatter

Weight in NTM = Value per saved feed index unit, € / Value per NTM index unit, €

### Weight of saved feed used in NTM

In the May index round 2026 the weights in NTM were changed according to the wish from the breed association. Holstein and Jersey followed the economy value while RDC wished a weight a bit below the economy optimum. The weight for saved feed included in NTM: Holstein 0,35, RDC 0,35 and Jersey 0,38.

### Effect of breeding progress with new weight in NTM for Saved feed

The effect in breeding progress between the two scenarios (current NTM and new NTM) can be shown by calculating the correlation between the traits in NTM and the NTM.

In table 2 the weight in the current NTM and the new NTM with more weight on saved feed, can be seen. In table 3 the correlation between the traits in NTM and NTM is shown for the current NTM and new NTM for each breed. In table 4 the correlation between the traits in NTM and saved feed can be seen.

In table 5 the change in NTM between the current NTM and New NTM, for the animals in the calculation, can be seen. For Holstein the changes are between -4 and +4 in NTM, for RDC the changes are between -5 and +6 while it is between -4 and +5 for Jersey.

The biggest change is seen for RDC while the change is around the same for Jersey and Holstein. The correlation between the current NTM and the new NTM is 0.99 for Jersey and Holstein while it is 0.98 for RDC. It is also expected since the weight in saved feed for Holstein and Jersey are around double while it increase more than three times for RDC. The overall changes is small for all breeds which show a robust NTM for all breeds.

**In the process RDC want extra calculations and correlation calculated on genomic tested bulls born 2023 and 2024. In the following tables the calculation can therefore be done for different year groups between the breeds.**

*Table 2. Weigt in NTM for current NTM and new NTM with changed weight in saved feed*

Breed	Holstein		RDC		Jersey	
	Current NTM	New NTM	Current NTM	New NTM	Current NTM	New NTM
Yield	0.90	0.90	1.02	1.02	0.83	0.83
Growth	0.08	0.08	0.10	0.10	0.00	0.00
Fertility	0.36	0.36	0.36	0.36	0.26	0.26
Birth index	0.14	0.14	0.11	0.11	0.04	0.04
Calving index	0.14	0.14	0.10	0.10	0.07	0.07
Udder health	0.30	0.30	0.26	0.26	0.44	0.44
General health	0.14	0.14	0.11	0.11	0.14	0.14
Claw health	0.10	0.10	0.07	0.07	0.09	0.09
Frame	0.00	0.00	0.00	0.00	0.00	0.00
Feet & Legs	0.05	0.05	0.06	0.06	0.07	0.07
Udder	0.18	0.18	0.26	0.26	0.15	0.15
Milkability	0.09	0.09	0.11	0.11	0.09	0.09
Temperament	0.04	0.04	0.03	0.03	0.03	0.03
Longevity	0.06	0.06	0.06	0.06	0.09	0.09
Youngstock survival	0.13	0.13	0.19	0.19	0.10	0.10
Saved Feed	<b>0.18</b>	<b>0.35</b>	<b>0.13</b>	<b>0.35</b>	<b>0.18</b>	<b>0.38</b>

Table 3. Correlation between the traits in NTM and NTM for current and new NTM. Calculations are based on genomic tested Holstein and Jersey bull calves born in 2022 & 2023 and RDC bulls calves born 2023 & 2024.

Breed	Holstein		RDC		Jersey	
Number of animals	6,349		4,478		1,120	
Traits	Current NTM	New NTM	Current NTM	New NTM	Current NTM	New NTM
Yield	0.73	0.73	0.69	0.67	0.75	0.76
Growth	0.12	0.10	0.03	0.00	-0.05	-0.04
Fertility	0.33	0.31	0.26	0.25	0.17	0.14
Birth index	0.15	0.15	0.12	0.13	0.10	0.12
Calving index	0.19	0.17	0.18	0.17	0.32	0.30
Udder health	0.24	0.21	0.25	0.23	0.48	0.44
General health	0.26	0.23	0.18	0.15	0.37	0.33
Claw health	0.24	0.21	0.18	0.18	0.09	0.07
Frame	-0.04	-0.06	0.02	-0.02	-0.01	0.01
Feet & Legs	0.12	0.14	0.23	0.26	0.01	0.00
Udder	0.20	0.17	0.21	0.18	0.21	0.16
Milkability	0.08	0.08	0.08	0.07	0.15	0.15
Temperament	0.12	0.12	0.01	0.01	0.03	0.03
Longevity	0.37	0.35	0.49	0.48	0.44	0.41
Youngstock survival	0.15	0.15	0.25	0.26	-	-
Saved Feed	<b>0.33</b>	<b>0.45</b>	<b>0.34</b>	<b>0.50</b>	<b>0.28</b>	<b>0.41</b>
Current NTM	1.00	0.99	1.00	0.98	1.00	0.99

Table 4. Correlation between the traits in NTM and saved feed. Calculations are based on genomic tested bull calves born in 2022 and 2023.

Breed	Holstein	RDC	Jersey
Number of animals	6,349	4,919	1,120
Yield	0.32	0.13	0.35
Growth	-0.12	-0.16	0.06
Fertility	-0.06	0.06	-0.17
Birth index	0.05	0.12	0.19
Calving index	-0.06	0.04	-0.01
Udder health	-0.11	0.00	-0.08
General health	-0.11	-0.16	-0.13
Claw health	-0.10	0.03	-0.04
Frame	-0.15	-0.23	0.07
Feet & Legs	0.15	0.25	-0.05
Udder	-0.12	-0.11	-0.26
Milkability	0.07	-0.07	0.04
Temperament	0.11	0.04	0.05
Longevity	-0.02	0.15	-0.08
Youngstock survival	0.06	0.11	-

Table 5. Frequency and percent difference in NTM between current NTM and New NTM for the genomic tested Holstein and Jersey bull calves born in 2022 & 2023 and RDC bulls calves born 2023 & 2024 .

Breed	Holstein		RDC		Jersey	
Number of animals	6,349		4,478		1,120	
NTM change	Frequency	Percent	Frequency	Percent	Frequency	Percent
-6	-	-	-	-	-	-
-5	-	-	1	0.02	-	-
-4	7	0.11	21	0.47	3	0.27
-3	78	1.23	93	2.07	10	0.89
-2	391	6.16	357	7.96	90	8.04
-1	1247	19.64	826	18.42	238	21.25
0	2012	31.69	1,223	27.27	328	29.29
1	1679	26.45	1,091	24.33	280	25.00
2	740	11.66	609	13.58	128	11.43
3	167	2.63	215	4.79	32	2.86
4	28	0.44	42	0.94	8	0.71
5	-	-	6	0.13	3	0.27
6	-	-	1	0.02	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-

### Effect of breeding progress for single type traits

The previous version of the saved feed index had a high correlation to some of the single type traits and especial in frame. In table 6 the correlation between single type traits and current NTM plus new NTM can be seen. In table 7 the correlation between saved feed and the single type traits can be seen.

Table 6. Correlation between single type traits and respectively current NTM and new NTM for all breeds. Calculations are based on genomic tested Holstein and Jersey bull calves born in 2022 & 2023 and RDC bulls calves born 2023 & 2024 .

Breed	Holstein		RDC		Jersey	
Number of animals	6,349		4,478		1,120	
Traits	Current NTM	New NTM	Current NTM	New NTM	Current NTM	New NTM
Stature	0.01	-0.01	0.05	0.01	0.15	0.13
Body depth	-0.10	-0.10	0.00	-0.01	0.01	0.01
Chest width	-0.10	-0.13	-0.13	-0.17	-0.05	-0.08
Rib structure	0.08	0.11	0.20	0.22	0.17	0.20
Top Line	-0.09	-0.09	-0.04	-0.03	0.01	0.02
Rump width	-0.02	-0.04	-0.02	-0.06	0.08	0.06
Rump angle	-0.13	-0.13	0.06	0.08	-0.09	-0.08
Rear legs, side view	0.01	0.03	-0.14	-0.15	0.06	0.06
Rear legs, back view	0.05	0.04	-0.01	-0.02	-0.05	-0.04
Hock quality	0.11	0.13	0.23	0.26	0.08	0.08
Bone quality	0.09	0.11	0.17	0.22	-0.02	-0.01
Foot angle	0.02	0.00	-0.01	-0.03	0.04	0.02
Fore udder attachment	0.18	0.16	0.13	0.11	0.18	0.13
Rear udder height	0.15	0.15	0.33	0.34	0.19	0.18
Rear udder width	0.09	0.09	0.22	0.22	0.12	0.13
Udder support	-0.01	0.00	0.09	0.09	-0.01	-0.02
Udder depth	0.14	0.11	0.20	0.17	0.19	0.14
Udder balance	-0.02	-0.02	0.09	0.08	0.00	0.00
Teat length	0.00	-0.01	-0.01	-0.03	0.00	0.00
Teat thickness	-0.06	-0.06	-0.02	-0.02	-0.01	-0.01
Teat placement, front	0.01	0.01	0.11	0.11	0.05	0.06
Teat placement, back	0.02	0.03	0.14	0.15	-0.05	-0.04

Table 7. correlation between saved feed and the single type traits for all breeds. Calculations are based on genomic tested bull calves born in 2022 and 2023.

Breed	Holstein	RDC	Jersey
<b>Number of animals</b>	6,349	4,919	1,120
<b>Stature</b>	-0.12	-0.20	-0.07
<b>Body depth</b>	-0.05	-0.11	0.02
<b>Chest width</b>	-0.27	-0.29	-0.25
<b>Rib structure</b>	0.20	0.12	0.28
<b>Top Line</b>	-0.04	-0.02	0.07
<b>Rump width</b>	-0.15	-0.23	-0.06
<b>Rump angle</b>	-0.10	0.12	0.05
<b>Rear legs, side view</b>	0.14	-0.11	0.05
<b>Rear legs, back view</b>	0.00	-0.04	0.08
<b>Hock quality</b>	0.24	0.26	-0.04
<b>Bone quality</b>	0.22	0.28	0.09
<b>Foot angle</b>	-0.18	-0.08	-0.15
<b>Fore udder attachment</b>	-0.12	-0.05	-0.23
<b>Rear udder height</b>	0.09	0.13	0.02
<b>Rear udder width</b>	0.01	0.04	0.13
<b>Udder support</b>	0.05	0.00	-0.07
<b>Udder depth</b>	-0.12	-0.10	-0.29
<b>Udder balance</b>	-0.03	-0.01	0.02
<b>Teat length</b>	-0.05	-0.10	0.03
<b>Teat thickness</b>	-0.04	-0.08	0.03
<b>Teat placement, front</b>	0.01	0.03	0.08
<b>Teat placement, back</b>	0.06	0.06	0.03