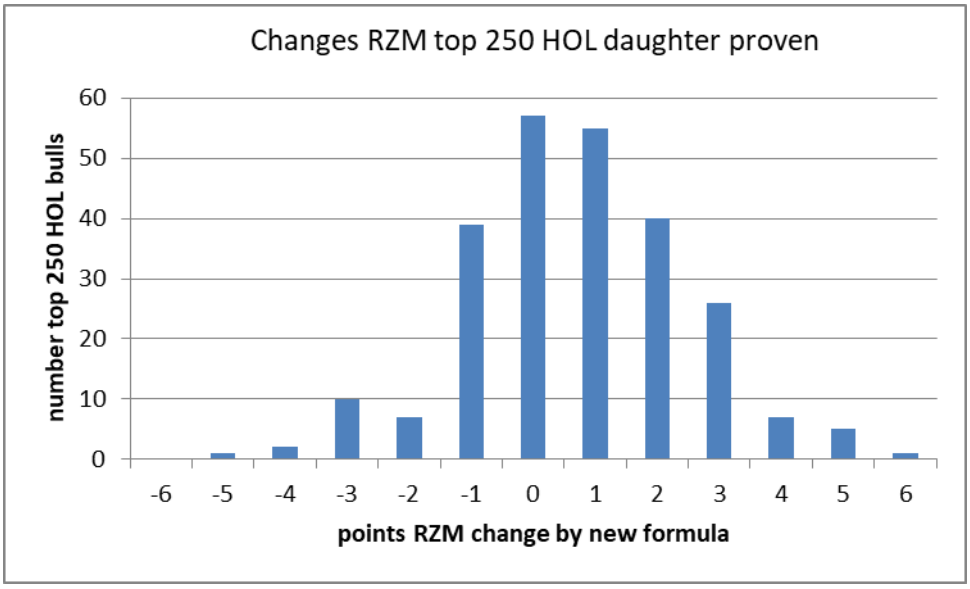
New weights in milk production index RZM in April

From April 2019 onward relative weights of protein and fat in milk production index RZM will be changed according to the changed payment in milk market. For a long time relative weighting was constant with factors for EBV protein and fat-kg in the RZM formula being 4:1 and 5% weight on protein percentage. In April the ratio of protein to fat will change to 2:1. With the higher weight on fat the small weight on percentage is no longer necessary to achieve a (small) positive genetic trend for percentages by selection for RZM. This is because fat-kg is much closer positively correlated to fat-% compared to protein-kg to protein-%. Furthermore fat-kg is more independent from milk-kg compared to protein-kg. Caused by these genetic correlations the higher weight for EBV fat-kg automatically leads to more positive trend for percentages and maximizes the kg's that are finally payed for.

Despite the significant higher weight for fat the impact on RZM of individual animals is not as high as one might expect in first instance. Only with very extreme fat-kg to protein-kg the RZM changes significantly. Therefore changes within the top 250 daughter proven Holstein bulls are at a maximum of -5 resp. +6 points RZM and this just for one bull each:

rank RZG	RZG	Name	M-kg	F-%	F-kg	P-%	P-kg	RZM	RZM new	Diff. RZM
58	136	**BG Melk**	673	0.74	101	0.16	38	**136**	**142**	**+6**
230	126	**Philo**	2139	-0.86	-14	-0.13	57	**129**	**124**	**-5**

Within the top 250 daughter proven Holstein bulls (Dec. 2018) 151 bulls (60%) would change +/- 1 point RZM and 234 (94%) within the range of +/- 3 points (see figure). Overall within the high daughter proven and genomic bulls those with positive percentages will belong to the winners and those with negative percentages will drop in average because of the new weighting.



The new RZM formula will be applied for all dairy breeds, i.e. including Angler (Red Dairy Cattle) and Jersey that had different formulas from Holstein in the past.