

Final results of 10 years of crossbreeding in California – Crosses make more money!

In the beginning of June the final results from the six dairies in California were presented by Les Hansen and Brad Heins from the University of California. These dairies have now been crossbreeding for 10 years and the composition of the herds has gone from pure Holstein (in one case also pure Jerseys) to 100% crossbreds. The preferred cross is the combination Holstein – Swedish Red – Montbeliarde – the ProCROSS.

Profit

The new results clearly show the superiority for profit for the crosses, the Scandinavian Red (Swedish and Norwegian Red) – Holstein crosses make 21% more money over life time than the Holsteins (table 1). Note that in this comparison health costs are not included, so the real difference can be expected to be even larger. The crosses had superior fertility and survival. Days Open was about two weeks less for the crosses (table 2). 51% of the Scandinavian Red crosses calved a 4th time compared to 36% of the Holstein (table 3).

Production

The milk production was a few % less for the crosses, 3% less for the first five lactations (table 4). But as the survival and fertility was better the life time production was 9% higher for the Scandinavian Red crosses compared to the Holsteins (table 5).

Calvings

As shown already early in the study the Scandinavian Red crosses dominate for calving ease. The results for the calvings sired by Scandinavian Red bulls on Holstein heifers show only 5,5% dystocia and 7,7% stillborn – compared to 16,4% calving difficulties and 15,1% still births for the pure Holstein (table 6) . The Scandinavian Red – Holstein crosses had easy first calvings only 3,7% calving difficulties and 5,1% stillbirths (table 7).

The results can be summarized to be excellent for the crosses, 21% higher life time profit! The higher profitability is also shown by the CDFA cost comparison 2008 where the crossbred herds in California make 3 times more per kg milk. The better survival and fertility, in addition to the calving ease and competitive milk production proves the crossbreeding with Swedes Red to be an attractive alternative.

	Holstein	Normande – Holstein	Montbeliarde – Holstein	Scandinavian Red – Holstein
Number of cows	416	251	503	321
Profit / cow	\$3 999	\$4 285	\$5 326	\$4 843
Difference from Holstein		+ \$286	+ \$1 357	+ \$844

Table 1. Total Lifetime Profit (ignoring health cost)

	Holstein	Normande - Holstein	Montbeliarde – Holstein	Scandinavian Red – Holstein
		Compared to Holstein		
1 st lactation	148	-21	-16	-14
2 nd lactation	144	-17	-24	-11
3 rd lactation	146	-14	-16	-14
4 th lactation	147	-16	-27	-1
5 th lactation	157	-34	-48	-19

Table 2. Days Open

	Holstein	Normande - Holstein	Montbeliarde - Holstein	Scandinavian Red - Holstein
2 nd lactation	77	88	87	85
3 rd lactation	59	70	71	70
4 th lactation	36	51	53	51

Table 3. Survival

	Holstein	Normande - Holstein	Montbeliarde - Holstein	Scandinavian Red - Holstein
Lactations	1 100	807	1 653	1 017
		Compared to Holstein		
Milk (kg)	11 185	-1 461	-619	-701
Fat (kg)	401	-37	-10	-12
Protein (kg)	345	-29	-10	-10
Fat + Protein (kg)	746	-66	-20	-22
		-9%	-3%	-3%

Table 4. Production – Weighted average of all 305-day lactations.

	Holstein	Normande - Holstein	Montbeliarde - Holstein	Scandinavian Red - Holstein
Cows	380	242	491	314
		Compared to Holstein		
Milk (kg)	28 424	+27	+4 191	+1 749
Fat (kg)	1 031	+42	+191	+99
Protein (kg)	895	+35	+152	+77
Fat+Protein (kg)	1 926	+77	+343	+176
% of Holstein		+4%	+18%	+9%

Table 5. Total Lifetime Production

Breed of sire	Calves	Calving difficulty	Stillbirths
		%	
Holstein	371	16,4	15,1
Montbeliarde	158	11,6	12,7
Scandinavian Red	855	5,5	7,7

Table 6. Calving difficulty and stillbirths for Holstein dams at 1st calving

Breed of dam	Number of calves	Calving difficulty	Stillbirths
		%	
Holstein	676	17,7	14,0
Normande – Holstein	262	11,6	9,9
Montbeliarde – Holstein	370	7,2	6,2
Scandinavian Red – Holstein	264	3,7	5,1

Table 7. Calving difficulty and Stillbirth for breed of dam at first calving.

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