Fleckviehs offer strength and durability as well as increased yield

by Wes Bluhm, representative, Genetic Austria GmbH, Dr Otmar Foger Str. 1, 4921 Hohenzell, Austria.

I remember the first time I saw a herd of Fleckviehs milking. I had been travelling in Europe with a colleague and we stopped to visit one of his clients. While my colleague was talking I briefly looked over the herd. I was not impressed; 230 big, strong, coarse milk cows that were not 'dairy' cows as far my 'Holstein' eyes were concerned and I went back outside.

When they came out, I asked about the production. The translated answer came back: 'about 9,000kg'. I stopped in my tracks, to go back and re-examine these cows. We then went through the herd, looking at the farmer's official 305 production records; there was no getting past it; these strong 'beef' cows were milking well.

This was my first introduction to Fleckvieh a breed that combines muscularity, strength and durability along with very respectable production. Since then I have developed a growing respect for the breed and farmers that work with them. I have seen Fleckvieh crossbreds milking from Austria, Czech, Slovakia, France, Germany, Turkey, Italy, the Netherlands, Canada and the UK and everywhere the same scenario: strong, long lasting productive cows that are profitable for their owners.

Fleckvieh is the dairy branch of the Simmental breed (think of Dairy Shorthorn and Beef Shorthorn) and is the second largest dairy breed in terms of bulls sampled (Interbull).

Over the last 150 years the breed has spread through the world as farmers have come to appreciate the combination of strength and dairy production. Fleckvieh breeders have worked to develop dairy cows of:

- Good production.
- Well attached silky udders.
- Low cell counts.
- Longevity.

The Genetic Austria dairy testing programme is large, independent and unbiased and is using the latest genetic tools as well, including genomic evaluations.

The breed offers something else as well. Fleckvieh sires in Austria initially go through a beef testing programme. Then, the best of these, go through the dairy testing programme. Dual purpose used to be a 'dirty word' in dairy cattle breeding. For the last 40 odd years of a virtual international monopoly of milk production by Holsteins; most commercial farmers were forced to accept the black and white cow as the world's most superior milk producing animal.

However, things have evolved. Profit and high milk yield no longer go hand in hand. With spiralling input costs, it is no longer all about 'buying' milk production but rather about efficiently producing the dairy products your milk buyer wants and delivering a profit. To quote a wise British farmer "output is vanity but profit is sanity!"

With the worldwide growing interest in crossbreeding; Genetic Austria embarked on a thorough trial on Fleck crossbreeding together with the respected Wageningen University and Research Centre in Holland.

Participating Dutch farmers inseminated their Holstein cows randomly with either Fleck or Holstein semen. Fleckvieh semen used included the Genetic Austria bulls: Rumba, Dionis, Ress, Hupsol, Rotax and others. The goal was to compare Fleck crossbreds to pure Holsteins under similar feed, management and environmental conditions. The pure Holstein cows used as dams were of similar production.

In order to ensure a 'level field' for comparison; the farmers applied the same insemination policy for the purebreds and the crossbreds and the heifer calves were

Continued on page 39

	Crossbred (FLX)	Holstein (HF)
Number calved	192	148
Number of inseminations in rearing period	1.7	1.6
Age at first insemination	471	476
Non return 56 days (%)	73	70
Age at first calving (days)	782	777
Difficult calvings (%)	9.7	9.0
Normal calvings (%)	59.5	60.7
Easy calvings (%)	30.8	30.3
Stillbirth (%)	12.1	16.6

Table 1. Figures for the rearing period.

15 Fleckvieh x Holstein in the Netherlands. Second lactation: 305d, 8.652kgM, 4.40%F, 3.66%P, SCC70.

Continued from page 37
reared under the same conditions. The data thus far has been analysed by the university.

Heifer period

The trial involved a significant number of animals. Age at first insemination and first calving is virtually the same for both groups indicating that the crossbreds matured at a similar rate to the purebreds. Comments from the farmers indicated that crossbreds and purebreds were raised in the same groups and this presented no management problems. While the crossbreds had a marginally better non-return rate and the purebred had slightly more 'normal' calvings; it is questionable whether either of these figures are significant. However, the crossbreds had significantly lower death losses in calves due to early mortality (stillbirth).

First and second lactations

It is important to compare 'apples to apples'. In order to have a level playing field, standardised production figures (actual or predicted 305 day yields) were used in the trial. Adjustments were also made for age at calving and the season of calving to account for any deviations.

In the Netherlands this is reported as a percentage of the herd mean. i.e. the mean production of the herd is 100. This is referred to as the LW. So, an average animal for production in any herd has a score of 100.

In the case of the herds used in the trials the vast majority of the milking animals are purebred Holsteins with just the few trial crossbreds included. So the Fleckvieh crossbreds are being compared to their Holstein herdmates with influences of age, nutrition, management and environment all being accounted for.

In first lactation the crossbreds had a 4% lower milk production, but as can be seen in Table 2 this was largely compensated by higher fat and protein content, such that fat and protein yield was only 1.2% lower. Standardised productions were less than 3% lower for the crossbreds.

The figures for second lactations are still preliminary, but suggest that crossbreds will realise the same or even higher 305 day production than the pure Holsteins.

Of course profitability on the dairy farm is about a lot more than just production. A number of other key factors were also monitored in this well designed trial.

Lact. No.	Breed	No.	LW	305 day yield Milk (kg)	Fat (kg)	Protein (kg)	Fat (%)	Protein (%)	Fat + protein
1	FLX	138	100.5	7105	320	254	4.51	3.57	574
1	HF	101	103.3	7401	322	259	4.35	3.50	581
2	FLX	53	102.8	8861	401	321	4.52	3.63	722
2	HF	26	102.9	8639	393	311	4.55	3.59	703

Table 2. Summary of milk production in first and second lactation.

Reproduction

The researchers state that the percent re-inseminated is not significant. However, the better reproductive performance is substantial.

Table 3. Non production index figures for first lactation.

Index figure	FLX	HF
Re-inseminated (%)	86	91
No. of inseminations	1.7	2.2
Interval calving – first insemination	71	85
Interval first – last insemination	26	48
Non return 56 days (%)	70	54
Realised or running lactation length	270	308
Average weighted SCC	103	119

Combined, the improved reproductive performance translates to less problems getting cows in calf, shorter calving intervals and more calves per year.

The researchers also referred to increased value for the Fleck cross bull calves. This price difference varies from country to country based on the market.

In the UK farmers have reported receiving £280 and higher for two week old crossbred calves. This compares to an average Holstein bull calf value of approximately £45. The arithmetic is interesting. £280 - £45 = £235 extra for a Fleck cross bull calf. Average of one bull calf every two calvings (lactations) therefore an increased value of £235/2 = £117.50/lactation.

This works out to an extra 1.56 pence per litre produced on a cow averaging 7500 litres/milk/year. That is 1.5 pence for each litre produced without doing anything extra.

Conclusions

The researchers reported the following results from crossbreeding to Fleckvieh:

- Increased bull calf value.
- Similar production.
- Better reproductive performance.

Plus anticipated gains in:

- Higher cull value.
- Fewer health problems.

This study proves that you can have strength and durability in your herd, while at the same time having good milk production.

This means easier keeping cows. Plus you do not have to sacrifice yield in order to get improved reproductive performance. ■

Fleckvieh (Rumba) x Holstein (Noorder Dustin) cow on a trial farm in the Netherlands. First lactation: 276d, 8.432kg, 4.88%F, 3.85%P, SCC 20. Second lactation: 305d, 10.973kg, 4.37%F, 3.60%P, SCC14.

100% Fleckvieh (Toskana). Fourth lactation: 305d, 15.209kgM, 4.29%F, 3.59%P.