FLECKVIEH GENETICS (EA) LTD
Fleckvieh Genetics East Africa Limited is a limited liability company incorporated in Kenya specializing in sale of bull semen and Fleckvieh heifers operating under license from Bavarian Fleckvieh Genetics-Germany. Fleckvieh is the only proven dual-purpose breed in the world.

Fleckvieh made its debut entry to East Africa after successful introduction of the breed in South Africa and Namibia through a launch of the company’s products at the Brookside Breeders Show held at the Jamhuri ASK Ground in Nairobi in June 2009.
FLECKVIEH; THE ONLY DUAL PURPOSE BREED IN THE WORLD
HISTORY

• Starting in 1830 original Simmental cattle were imported into Bavaria (South East Germany) and Austria to improve the local dual-purpose breeds.
• At these times the Simmental cattle were famous for their milk production and drought resistance capacity but were late maturing with little depth and coarse bones.
• In 1920 the herd book in southern Germany was closed and Fleckvieh was developed as an independent breed.
• The breeding aims focused on a middle-of-the-road type of animal with good milk production excellent muscling and draught performance. From this an excellent performance and testing system combined with a strict breeding program was developed.
• Currently, Fleckvieh is the second largest dairy breed in the world has a herd population of more than 41 million worldwide. Fleckvieh tests 750 bulls annually making them second to the Holstein breed.
Distribution of the Fleckvieh breed in the World
Namibia:

Eisenherz-daughter with Zimbo calf

Hauk Erz
Polled bull
South Africa

Dundonald Farm, South Africa
Canada:
Mexico:

- Geronimo-Tochter
- Hornlose Eisenherz-Nachkommen
- Balaton Sohn, Fleckvieh x Brahman
Australia and New Zealand
Holland:
And now......
finally in Kenya!!!
Bavaria (Southern Germany) is the traditional origin of the breed; and is the source of our genetics.

Bavaria Fleckvieh Genetics is our partner in Germany.
The Al-center

Al-center in Grub

Waiting bulls in Börnchen / Saxony
Breeding bulls:

About 500 living Fleckvieh sires
Fleckvieh in Bavaria

Population:
Fleckvieh population in Bavaria: 1,3 Mio dairy cows
1 Mio. cows take part in in milk control!

Total Merit Index:
- 39,3% Milk
- 16,4% Beef
- 40,5% Fitness
- 3,8% Milkability

Fitness = calving ease (p/m), fertility (p/m), durability
Fleckvieh – A dual purpose breed
Breeding aims of Bavaria Fleckvieh

S: Wespe
**Emphasis on Type traits:**

- **Moderate frame**
  (140 – 145 cm height at withers)

- **Excellent muscling at the back and hind quarter**
  also in the middle of the lactation

- **Sound udders with large milk wells**

- **Dry, clear conformation**

- **Hooves:** uniform, medium size, deep and close together
Milk production:

- Milk production per year:
  - 10 times the lifeweight of the cow
- 30,000 kg lifetime production
- 1,200 kg butterfat
- 1,100 kg protein

- Production as a heifer: 25 kg milk
- Production with 2nd calf: 30 – 35 kg milk
- Production with 3rd calf: 35 – 40 kg milk

- Extremely flat lactation curve
**Milk Quality:**

Milk quality is of great importance for cheese making.

The genotype BB leads to a shorter renneting time and a better curd firmness than the genotype AA. The genotype AB is in between AA and BB.
Udder health:

- Somatic cell count / ml milk < 150,000 over all lactations
- No dipping of the teats
Beef production:

- Production of at least 4 calves per lifetime that can be fattened
- Weaning weights of Fleckvieh bull calves 300kg at 6 months of age
- Carcass grades of slaughter cows at least R3, when fed with TMR, U3

Fleckvieh weaners
Metabolism:

- Despite of high production low incidence of Ketosis
  Twisted stomach

- “Stable liver”
Hide:

- The fifth quarter
Breeding aim

Balanced, productive dual purpose cattle suitable for the production of milk, beef and by-products, that can be kept in all production systems of the world.
THE RETURN OF DUAL-PURPOSE BREEDS IN THE WORLD
Change in economics in the European cattle industry

Dual purpose is coming back – Why?

- Milk price
- Beef / Calf price
- Fitness
- Easy management
Problems of the dairy farmers:

**Costs**

- Feed →
- Rent →
- Energy →
- Milk control →
Dual purpose is coming back!

Why?

The focus on the two traits „Milk“ and „Dairy Character“ had detrimental effects on the Holstein breed.

Dairy character ↔ Health problems
Big frame ↔ Problems with metabolism and skeleton
Inbreeding ↔ Fertility- and fitness problems
High production ↔ Increasing fitness problems
Beautiful udders ↔ More mastitis problems
Top animals – Holstein

The lack of musculature & constitution is obvious
Top animals – Fleckvieh
Focus on Beef & Milk = Balanced animals

Fleckvieh – breeding for the future
When you realize that you are riding a dead horse, get off...

Red Cloud
Ogalala Sioux
CROSS BREEDING
At Fleckvieh Genetic(EA) Ltd.
Our main goal is to have farmers crossbreed their animals with the Superior Fleckvieh genetics.
Amani

Amani a crossbred animal sired by a Fleckvieh bull and born by a Holstein-Freasian mother. Her milk production averages at 40 liters daily.
Our breeding programme - How we see the future of Fleckvieh in Kenya:

- Crossing with dairy breeds
- Dual purpose
- Crossing with beef breeds
Why crossbreeding in dairy herds....

....with Fleckvieh?
Problems around modern dairy cows:

- Inbreeding
- Herd replacement gets a problem
- Reduced fertility
- Metabolic disorders despite of excellent feeding
- More problems arising with udder health
- Milk type negative correlated to health
Inbreeding

Inbreeding Index $F = \text{percentage of loci on the Chromosome when both genes derive from the same ancestor.}$

Critical $F$ for commercial cows $= 6.25\%$

F-Index in Dairy Breeds:

<table>
<thead>
<tr>
<th>Breed</th>
<th>F-Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holstein Friesian</td>
<td>5.20 %</td>
</tr>
<tr>
<td>Jersey</td>
<td>7.25 %</td>
</tr>
<tr>
<td>Brown Swiss</td>
<td>4.60 %</td>
</tr>
<tr>
<td>Fleckvieh</td>
<td>0.61 %</td>
</tr>
<tr>
<td>Fleckvieh bulls</td>
<td>1.20 %</td>
</tr>
</tbody>
</table>
Some individual bulls have been overused globally.

Influence of some bulls on the HF/JY-Population in U.S.A. – Relationship to the whole population

HF: Elevation 15,4 %
HF: Chief 15,2 %
HF: Blackstar 14,8 %
JY: Duncan 23,0 %

Influence of HF-bulls on the Canadian Population

HF: Starbuck 20,0 %
Inbreeding has negative effects on:

- Milk production
- Reproduction
- Durability
Reproduction - Problems

- Inbreeding
- Hereditary defects (CVM)
- Silent heat (fat soluble hormones)
- Cystic ovaries in cow families
- Calving difficulties
Metabolic Disorders

- Displacement of Abomasum
Udder problems

- Mastitis (heifers)
- High somatic cell counts
Milk Type

Lack of Masculinity
- A problem for dairy breeds?

Top Holstein Sire
Selected for Milk and Milktype

Top Fleckvieh Sire
Selected for Dual Purpose
Agri News 2003

"Holsteins are too inbred, too large, don’t reproduce well enough and don’t live long enough. A smaller, easier-to-maintain cow is needed. Future Holsteins may look more like they did in the 1960’s, with a little more roundness and flesh than today’s model."

He predicted that in 10 years time, a majority of Holstein calves would be crossbred.
Holstein breeders and dairy farmers with big farms are looking for healthy, easy calving, fertile, vital and more muscled cows that can easily cope with the stress situations that come up in big dairy herds.

The Holstein industry must take their demands into consideration, otherwise these farmers will start to use semen of other breeds, since crossings with other breeds bring about a solution for longevity, fertility and calving ease already in the first generation.

(Holstein International 07/03)
Fleckvieh stands for:

- Long service life
- High lifetime production
- Extraordinary fertility
- Excellent cell count
- Strong feet and legs

=> Enormous productivity
Benefits of Fleckvieh in crossbreeding programs:

**Milk production**

- F1 cows produce more milk than their mothers (FCM)
- The milk of Fleckvieh cows has a higher protein content
- The milk of Fleckvieh cows has a lower cell count (about 70,000 cells/ml)
Benefits of Fleckvieh in crossbreeding programs:

**Fitness traits**

- Fleckvieh cows have a higher fertility (shorter ICP)
- Fleckvieh cows are very vital
- Reduction of the problems related to metabolism (no displacements of the abomasum)
- Much better conformation and legs
Benefits of Fleckvieh in crossbreeding programs:

**Beef production**

- Fleckvieh brings about muscling, F2 and F3 cows often are as muscled as Fleckvieh cows, depending on the sires used
- Better carcass grades
- F1 bull calves can be sold for at least KSh.30,000; this is much more than Holstein calves can fetch at 8 months
Samurai-daughters
Fleckvieh x Holstein, F1

Selma
Preestimated 305 days
9.104 kg milk ≈ 30 kg daily
4.12% butterfat – 3.46% protein

Anina
Preestimated 305 days
6.051 kg milk ≈ 20 kg daily
4.03% butterfat – 3.54% protein
Samurai-daughters
Fleckvieh x Holstein, F1

Rita
295 days: 8.578 kg milk ≈ 30 kg daily
4.27% butterfat – 3.44% protein
Manager-daughter
Fleckvieh x Holstein, F1

Bea
Preestimated 305 days:
7.361 kg milk≈ 24kg daily
4.80% butterfat – 3.63% protein
Manager-daughters
Fleckvieh x Holstein, F1

Resi
Preestimated 305 days
9.187 kg milk ≈ 30kg daily
4.03% butterfat – 3.54% protein

Marietta
Preestimated 305 days
7.542 kg milk ≈ **25kg daily**
4.56% butterfat – 3.49% protein

crossbred
Manager-daughters
Fleckvieh x Holstein, F1

About one year old
Why should I use Fleckvieh on my Holstein cows to rise the profitability of my dairy herd?

- The milk production and milk contents of the F1 – cows are better than those of their mothers in the 1st lactation.
- Rise of milk production in higher lactations.
- Cows are much more vital and have less metabolic problems (especially twisted stomach).
- Shorter intercalving period.
F1 – cows in average have 70,000 cells / ml less than their HF fellows

Much better conformation
  (less interdigital necrobacteriosis and Mortellaro)

Male F1 – calves can be sold Ksh.30,000 in 8 months (at 300kg live weight)

F1 – cows in higher lactations have the same muscling like Fleckvieh cows

Carcass grades of F1 – cows: R (90%) and U (10%)
Why use Fleckvieh as crossing partner for dairy breeds?

- Improvement of fitness traits (somatic cell count, metabolism)
- Reduction of herd replacement
- Improvement of the body condition
- Reduction of stillbirth
- Improvements of fertility
- Reduction of inbreeding
- Improvement of beef traits
Crossbreeding
Fleckvieh x Jersey

Pünktchen:
284 days: 6.233 kg milk - 5.70% butterfat – 4.01% protein
Crossbreeding
Fleckvieh x Holstein

might be the solution to many problems of dairy farmers!
OUR SERVICES

- We have an in-house Artificial Insemination Centre through which insemination is done within the hour of placement of request.
- We also conducts farm visits to local breeders where breeding specialists make a herd evaluation, offering free advice giving recommendation on where improvement is required.
OUR CONTACTS

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