

Breeding for health – Why?

For animal welfare and operational success

Healthy udders

- Mastitis is the most common infectious disease in dairy cows.
- A single case costs up to 600 euro in veterinary costs and loss of milk revenue.
- The reduction of mastitis rate is economically worthwhile.



Improved fertility

- Managing the fertility of high yielding Holsteins is challenging.
- Diseases such as endometritis prevent a successful insemination of the cow.
- Healthy reproductive organs are necessary for a timely pregnancy.

Robust hoofs

- Hoof diseases are expensive and the treatment increases working time.
- Only cows with healthy hoofs are productive cows.
- The resistance against hoof diseases is hereditary.

Stable metabolism

- The cow's metabolism changes in the peripartal period fundamentally.
- The sensitive metabolic balance gets out of control easily and diseases such as milk fever, displaced abomasum and ketosis occur.
- Breeding for cows with a stable metabolism helps to minimize problems in the calving period.



Next big step in German Holstein breeding

German Holstein Breeding stands for quality and innovation since more than 140 years. The well-known abbreviation **RZ** for Relative Breeding Values is also known for breeding quality **made in Germany**. In April 2019 five genetic breeding values for the most important health traits are published. The use of genomic health breeding values can help to select against economically important diseases in dairy cattle farming. **Improve the health of your herd by considering RZhealth in your breeding strategy.**

We are pleased to advise you on the individual use of the new RZ-values.



Good to know:

12 points breeding progress in **RZhealth** correspond to 25–35 % less diseases in your herd.



RZ

Breeding values for better health

Breeding values for more animal welfare

- Healthy cows
- Reduced replacement rate
- Lower veterinary costs



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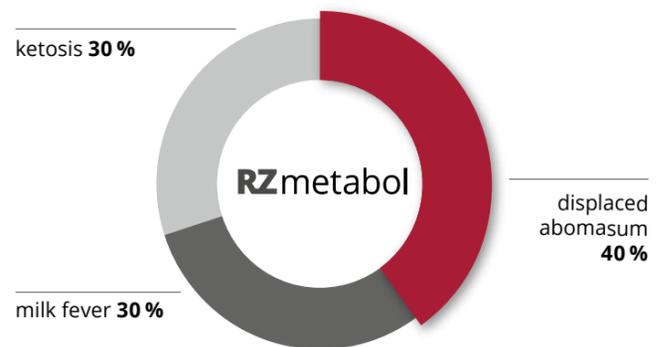
Success in breeding Made in Germany

German Holsteins: Precision in breeding

- Globally unique: breeding values for all economically important health traits
- Adapted to a wide variety of climates and farm structures
- Highest reliability of genomic breeding value for more breeding success

Unique data basis

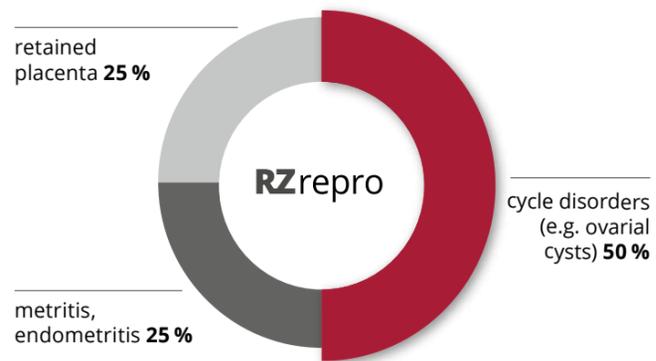
- Health and hoof trimming data recorded in a standardized way
- Large unbiased reference population
- Combination of direct health data and data from milk recording for maximum reliability of genomic breeding values



Reliability of genomic breeding value: 55 %

Stable metabolism

- More robust cows with less metabolic problems before and after calving
- A stable metabolism in early lactation prevents secondary diseases like ketosis and subsequent problems e.g. laminitis



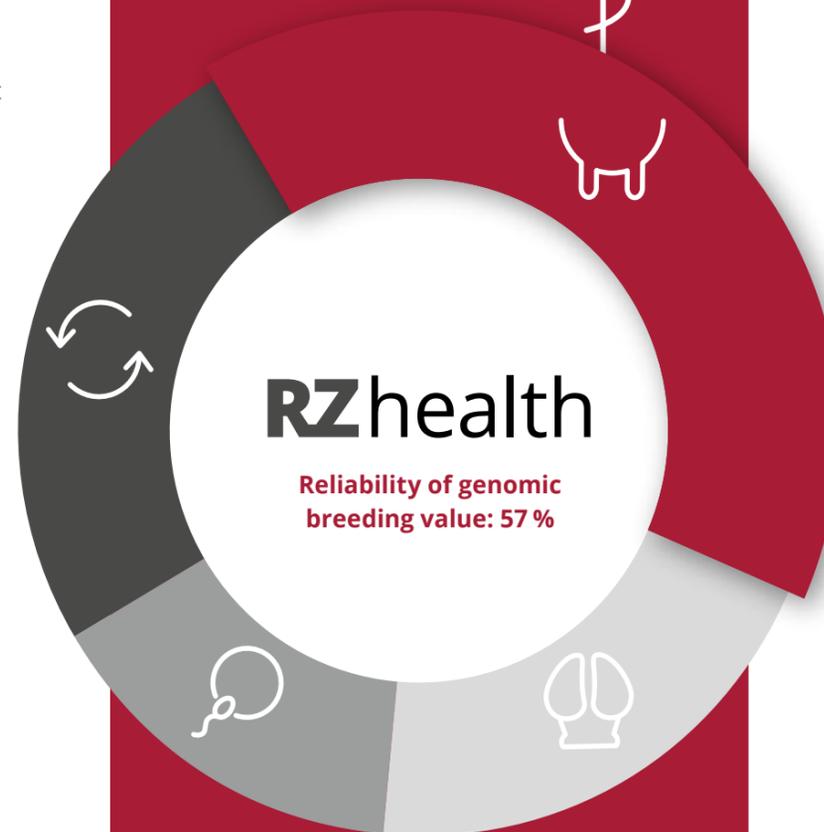
Reliability of genomic breeding value: 52 %

Improved fertility

- Prevents early fertility diseases
- Healthier cows especially directly after calving



13 direct
traits



- 4 trait complexes
- 1 total breeding value
- Economically optimal weighted

Healthy udders

- Reduces the mastitis rate sustainably
- Saves antibiotics and costs

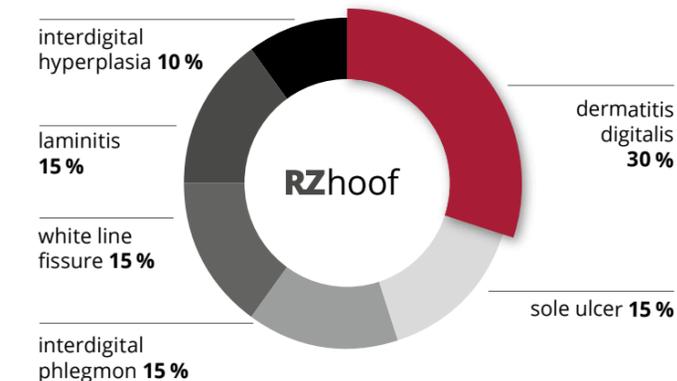


Robust hoofs

- Effective mating against the six economically significant hoof diseases
- Dermatitis digitalis (DDcontrol) is the most important trait in this complex



Reliability of genomic breeding value: 61 %



Reliability of genomic breeding value: 50 %