

Bovine Respiratory Disease (BRD) FAQs



Trait Development

Q What is the Bovine Respiratory Disease (BRD) trait?

A The BRD trait is a genomic prediction of an animal's genetic susceptibility to Bovine Respiratory Disease (BRD) – a major health concern and cost impacting beef production. Individual BRD scores estimate an animal's genetic susceptibility to BRD and can be used to inform selection decisions for future progeny.

Q How was it developed?

A The BRD trait is built on data from approximately 20,000 animals in commercial feedlot environments throughout the United States over a five-year period. Each animal had DNA data and recorded health outcomes.

Q What health outcomes were used in development?

A Development used individual-animal health records that included documented BRD treatments and BRD-related mortality, capturing both clinical disease incidence and survival outcomes.

Q What does the score predict?

A The BRD trait predicts an animal's genetic susceptibility, capturing the genetic component of disease risk rather than whether the animal will develop the disease.

Q Has this trait been validated?

A Yes, validations found a 75% correlation between genomic predictions and observed BRD outcomes.

Ordering

Q How can I order the BRD trait?

A BRD is available with Igenity Beef at no additional cost. All Igenity Beef samples submitted for testing after June 22, 2026 will receive BRD scores.

Deliverables

Q How is the BRD trait reported?

A This trait is reported on a 1-10 scale.

- Higher score = more genetic resilience, less risk
- Lower score = less genetic resilience, more risk

Q What is a good score?

A Higher scores are better because they indicate stronger disease resistance.

Q Do differences in scores translate to a real risk of BRD?

A Yes. Each one-point increase improves the probability of BRD resilience by 5.15% (See Table 1.)

Scores	BRD Genetic Effects (%)
10	46.35
9	41.20
8	36.05
7	30.90
6	25.75
5	20.60
4	15.45
3	10.30
2	5.15
1	0

Table 1: Genetic Effect of BRD Scores

Q What is the heritability of the BRD trait?

A The heritability of this trait is 0.18, which is relatively high for a health trait. This means genetics play a meaningful role, and selection can improve outcomes over time.

How to use the BRD trait

Q How can I use BRD in my selection decisions?

A When used with other selection criteria, BRD scores can help you:

- Select replacement heifers
- Compare cattle within a group
- Evaluate bulls or breeding decisions
- Build healthier herds over time

Q What are the benefits?

- A**
- Reduce health risk
 - Support better selection decisions
 - Build more BRD resilient herds over time

Q Does a low score mean an animal will get sick?

A No. The score shows risk, not certainty. It is designed to aid in genetic selection decisions.

Q Should I cull low-scoring animals?

A No. BRD scores should be used to guide gradual genetic improvement, not immediate culling decisions. The goal is to improve the genetic resilience of the herd over time, while maintaining productivity and profitability.

Q Can this be used as a risk management tool in feeder cattle?

A Yes, BRD scores can be a valuable tool to help manage disease risk in feeder cattle.

Q How do BRD results impact herd health protocols?

A BRD scores support selection decisions but do not replace veterinary guidance. Continue following your herd health plan and working alongside your veterinarian.

Q Will selecting for BRD compromise other traits?

A Selection for BRD resilience does not come at the expense of performance. Table 2 shows mostly positive or neutral relationships with other important traits – meaning the BRD trait can fit into your overall improvement strategy.

Trait	Relationship	What it Means
Average Daily Gain	Moderate positive	More resilient cattle tend to grow better
Weaning & Yearling Weights	Moderate positive	Healthier cattle maintain performance
Marbling & Hot Carcass Weight	Positive	No negative carcass trade-off
Milk	Neutral	No meaningful relationship
Heifer Pregnancy	Positive	Healthier cattle tend to be more reproductively efficient
BCHF	Slight negative	Interpret cautiously, as the magnitude is small

Table 2: BRD Relationships With Other Traits

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