GenomeOne

Genomic Prediction. Now Within Reach.

phenome networks

Trusted by Breeders. Now with Genomic Prediction.

For more than 18 years, Phenome Networks has been the global leader in breeding data management software, with PhenomeOne recognized across the industry as a trusted platform for managing breeding and variety-testing data. Now, Phenome Networks is bringing a groundbreaking new capability directly to breeders: **genomic prediction with GenomeOne.**

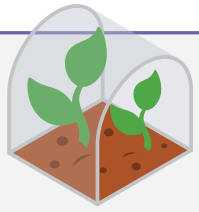
Beyond the field: Predict your best crosses before you make them.

Today, breeders advance only a small fraction of plants to the next cycle. Genomic prediction can raise that dramatically. Traditional selection relies on visible traits, field performance, and breeder experience. But appearance doesn't tell the whole story. By combining genomic and phenotypic data, breeders can uncover hidden potential and predict the outcome of a cross before it's made.

GenomeOne: Genomic prediction directly in the hands of the breeder.

GenomeOne brings genomic data storage, analysis, and prediction into the breeding workflow without requiring an in-house bioinformatics team or an expensive one-off consulting project.
It's a SaaS platform designed to give breeders direct, ongoing access to genomic intelligence when they need it.

One Module. Three Capabilities.



STORE

Centralize the genetic profile of every plant.
Store unlimited genomic data in one place, with built-in quality control and imputation of missing markers, creating an accessible genomic resource for your breeding program.

ANALYZE

Explore the relationships between genetics and traits.
Run genomic analyses and association studies on demand to identify the genetic markers behind physical traits. Explore correlations, run queries, and keep investigating on your own schedule.

PREDICT

See the potential of a cross before you make it.
Combine phenotypic and genotypic data to predict the outcomes of specific crosses: smarter selection, fewer wasted seasons, better products to market faster. Prediction methods range from classical statistics to machine learning, matched to each trait.

What if the plant you'd normally discard is the one you need?

Consider an "ugly tomato."
It may not look promising but its DNA could carry valuable traits like disease resistance or high sugar content. GenomeOne helps breeders uncover that hidden potential and predict what could happen if it's crossed with another plant.
Don't select on appearance alone. See the genetic potential.

Genomic Prediction Without the Traditional Barriers

Until now, genomic prediction has largely been available to major seed companies with in-house geneticists, bioinformaticians, and statisticians or through expensive, ad hoc consulting engagements. GenomeOne changes the model.

Traditional Model

$250,000–$500,000 per project

- ✗ 2–3 year engagement
- ✗ One result
- ✗ No ongoing access
- ✗ Dependent on outside specialists

GenomeOne

Starting at ~$10,000/year

- ✓ SaaS subscription
- ✓ Unlimited queries
- ✓ Ongoing access
- ✓ Breeder in control

GenomeOne makes genomic analysis and prediction accessible to mid-size and smaller breeding programs at a fundamentally different cost and operating model. With BrAPI support, data moves in and out of GenomeOne through an open-source international standard, integrating with a wide range of external applications.

PhenomeOne: The Proven Platform Behind GenomeOne

PhenomeOne is Phenome Networks' established platform for managing breeding and variety-testing data across the entire breeding cycle. It gives breeding programs the phenotypic foundation for data-driven decisions.
GenomeOne builds on that foundation, adding genomic data, analysis, and prediction, so phenotypic and genomic data work together in one place.

Already using PhenomeOne?
Connect your existing phenotypic data directly with GenomeOne.
Working in Excel or another platform?
Upload your phenotypic data into PhenomeOne to activate GenomeOne and bring phenotypic and genomic information together.

One connected environment for breeding data, genomic analysis, and prediction.

Your Data Stays Your Data.

Genomic and phenotypic data are among a breeding company's most valuable assets. GenomeOne is built to protect them.

- Isolated environment for each company
- Your data does not train our models
- Enterprise-grade security

Built on PhenomeOne's ISO-certified, secure cloud infrastructure in production since 2008.

Request a Demo

Put Genomic Prediction in the Breeder's Hands.

STORE. ANALYZE. PREDICT.

Turn genomic data into an ongoing part of your breeding program with GenomeOne and PhenomeOne working together from data collection to selection.

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