Appendix C AI Governance Evaluation Framework (Applicable to Breeding CROs)

Governance Dimension	Indicators or Tools	Evaluation Notes
Model Performance	AUC, RMSE, Accuracy, Precision, Recall	Evaluated based on context; model performance metrics should match the complexity and scale of application scenarios
Robustness	Multi-environment data, Performance across environments	Assesses stability under different conditions and ecological scenarios
Explainability	SHAP values, Feature importance ranking	Evaluates whether outputs are interpretable and understandable by non-AI experts
Fairness and Inclusiveness	Coverage of underrepresented varieties, representation of marginal traits	Evaluates whether model overlooks rare traits or species, or reinforces biased decisions
Compliance and Data Privacy	Existence of user agreements/training, differential privacy, access control	Ensures data security and ownership compliance in sensitive contexts like genetic and farmer data
Traceability and Reproducibility	Model versioning, training records, task accountability	Assesses whether model development process and outcomes are fully traceable and reproducible

Notes: It is recommended that this type of indicator system be used as an evaluation reference for breeding platforms participating in national projects, international collaborations, or industry fund-supported projects—thus promoting the transition of AI governance from corporate self-discipline to regulatory coordination