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*Editorial*

# Biobreeding, a Bridge between Fundamental Research and Agricultural Application

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We are delighted to introduce Biobreeding, an open-access, peer-reviewed journal dedicated to advancing the frontiers of plant, animal, and microorganism breeding through cutting-edge biological and technological innovations. As global challenges such as climate change, population growth, and environmental degradation threaten agricultural sustainability, the need for resilient, high-yielding agricultural products and sustainable farming practices has never been more urgent. Biobreeding seeks to bridge the gap between fundamental biological research and practical agricultural applications, fostering solutions to nourish a growing population while preserving planetary health.

Biobreeding embraces a comprehensive research scope to redefine 21st century plant, animal, and microorganism breeding, spanning molecular/genomic tools (genetic mapping, genome editing, marker-assisted selection), stress adaptation (abiotic/biotic tolerance mechanisms, climate resilience), microbiome engineering (plant-associated microbial consortia) and sustainable agronomy (low-input strategies, nutrient efficiency, soil-compatible crops). The journal highlights synthetic biology approaches (engineered metabolic pathways for biofortification) while emphasizing ecological integration (genetic diversity conservation, crop wild relative utilization, and agroecological synergies). We particularly welcome translational research addressing scalable field trials, regulatory frameworks, and global deployment of breeding innovations.

Biobreeding is committed to rigorous peer review, ethical publishing practices, and rapid dissemination of knowledge. Our editorial board comprises internationally renowned scientists and breeders with expertise in genetics, biotechnology, agronomy, and environmental science. We prioritize transparency, reproducibility, and societal relevance, ensuring that published work meets the highest standards of scientific validity and practical applicability.

As an open-access journal, Biobreeding guarantees that groundbreaking research is freely accessible to researchers, policymakers, and farmers worldwide, fostering equitable knowledge sharing and collaboration. We invite scientists, industry experts, and visionary thinkers to contribute to this vital endeavor—as authors, reviewers, or editorial board members. Together, we can harness the power of biological innovation to cultivate crops that sustain both humanity and the planet.