

Plant Breeding and Acclimatization Institute – National Research Institute

The Plant Breeding and Acclimatization Institute – National Research Institute (IHAR-PIB) is the largest state-owned scientific institution in Poland specializing in the breeding and genetics of agricultural crops. Since 1951, it has supported the development of Polish agriculture by conducting research on crop plants with high yield potential, resistance, and quality traits. In 2010, IHAR was granted the status of National Research Institute.

The Institute operates through its headquarters in Radzików and five scientific branches, supported by experimental stations and breeding

companies. IHAR-PIB plays a key role in the national food security system and in the conservation of plant genetic resources, while actively participating in both national and international research projects.



NIP: 529-000-70-29

KRS: 0000074008

REGON: 000079480



Achievements and Scientific Output



The IHAR Gene Bank – the second-largest collection in the EU and 15th globally

Development and commercial implementation of over one hundred crop varieties

Innovative breeding tech<mark>niques fo</mark>r hybrid breeding and trait selection.

Pioneering research in cereal gene editing (e.g., CRISPR/Cas9)

Accredited GMO Detection Laboratory, supporting public safety and regulatory compliance

Research Scope and Development Areas

Plant genetics and conventional breeding

Plant biotechnology and New Genomic Techniques (NGTs)

Resistance to biotic and abiotic stresses

Molecular selection methods and phenotyping

Monitoring of plant pathogens and pests

Seed quality and storage technologies

Precision and organic agriculture

Conservation and management
of plant genetic resources



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Selected Research Projects

AGENT

Developing digital
infrastructure for gene banks in
accordance with FAIR data
principles

DETECTIVE

Developing genomic techniques (NGTs) for identifying biological components in food

ECOBREED

Breeding of wheat, potato, soybean, and buckwheat for organic and low-input farming systems

INCREASE

Smart management of legume genetic resources (chickpea, lentil, lupin, bean); awarded the EU Prize for Citizen Science 2024

MULTISOIL

Wastewater treatment technologies for small and remote communities

PAPILLONS

Assessing the impact of micro- and nanoplastics in agricultural soils

POMATO

Innovative tomato-graftedon-potato technology, enabling dual crop production from a single plant

SUPPORT

Promoting Integrated Pest
Management (IPM) and
reducing chemical
pesticide use

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Service Offer



Plant disease diagnostics and resistance assessment



Production of doubled haploids and in vitro cultures,



Genetic and molecular analyses (GMO testing, gene expression)



Breeding and cultivation consulting,



Seed quality testing and evaluation of varietal performance.

All services are provided in compliance with high quality standards and PCA accreditation (PN-EN ISO/IEC 17025).







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Publications

The Institute publishes two scientific journals:



Ziemniak Polski (Polish Potato) – an advisory scientific-technical quarterly (5 pts, Ministry of Science and Higher Education)



Bulletin of Plant Breeding and Acclimatization Institute – an international open-access peer-reviewed journal (20 pts, Ministry of Science and Higher Education), publishing original research, reviews, and conference materials in agricultural and biotechnological sciences



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Development Potential

With a multidisciplinary team, advanced laboratory infastructure, and strong participation in European projects, IHAR-PIB is well-positioned to expand research on sustainable agriculture, innovative breeding, and plant adaptation to changing climatic and environmental conditions.



Open for COOPERATION

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