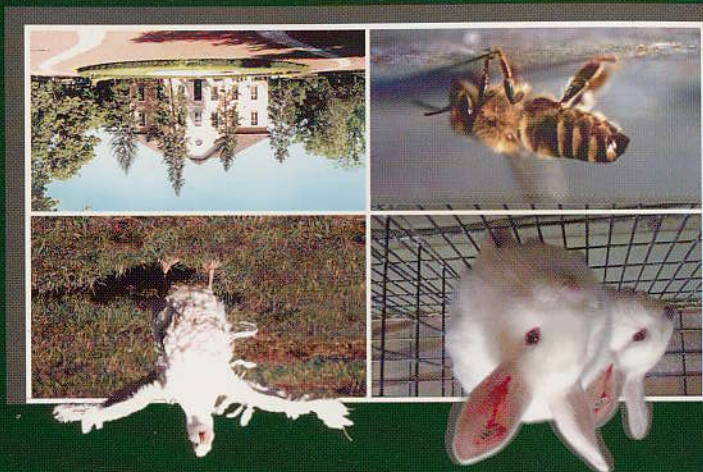
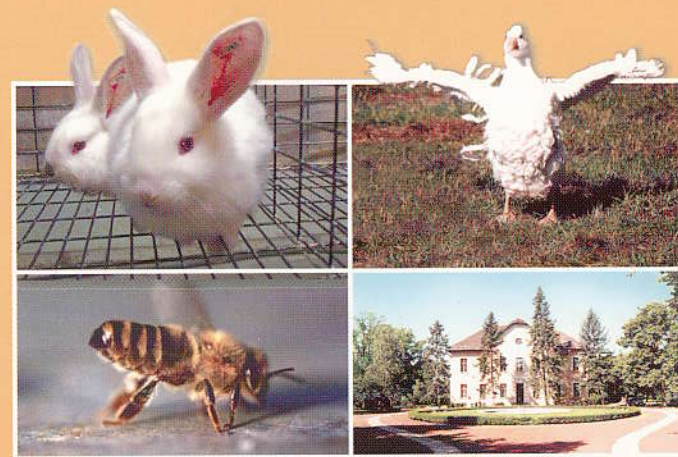


Kisállattenyésztési és Takarmányozási Kutatóintézet



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INSTITUTE FOR SMALL ANIMAL RESEARCH



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SHORT HISTORY OF ISR

Predecessors of the Institute for Small Animal Research (ISR) are the School for Poultry Workers' Training Farm and the Honeybee Breeding Farm founded by the Minister of Agriculture in 1897 and 1899 respectively. Followed by the union of the two institutions, Research Institute for Small Animal Breeding was founded in 1952, with the sections of Poultry-, Rabbit and Fur Animal-, Fish- and Honeybee Breeding Departments. In 1980, it became the part of the Research Centre for Animal Breeding and Nutrition. Supervised by the Mi-

nistry of Agriculture and Rural Development. ISR has been existing under the present name as an independent institution since 1992. Its organisation shows the departmental system.

MAIN ACTIVITIES OF ISR

Institute for Small Animal Research (ISR) and its predecessors have been playing an outstanding role in research, stock-breeding, tuition and extension work of Hungarian small animal breeding for more than a century. Activities of research units include basic and applied research and stock breeding in the following fields:

- poultry, rabbit and honeybee genetics, biology of reproduction, nutrition;
- poultry, rabbit and honeybee breeding
- conservation of small animal breeds, gene bank activities;

ISR and its researchers represent Hungary in several international organisations (WPSA – poultry, WRSA – rabbit, ISAG – animal genetics, FAO and RBI – gene conservation, APIMONDIA – bee keeping).

Parallel with its research activities, ISR takes part in professional education at universities and high schools in graduate, postgraduate and PhD training, and in extension work. ISR with its partners regularly organises study tours and conferences for Hungarian specialists abroad and for foreign researchers and experts in Hungary.



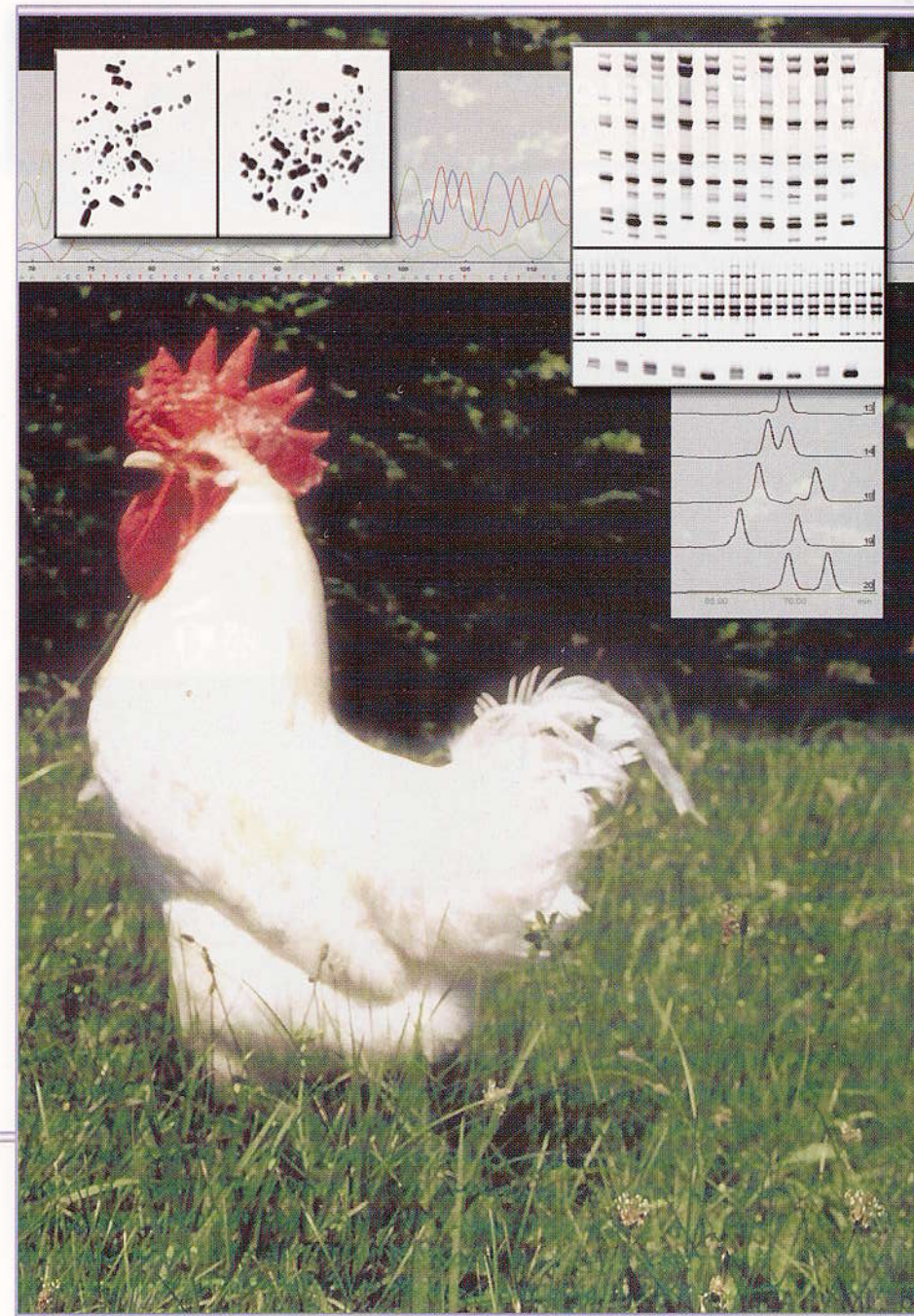
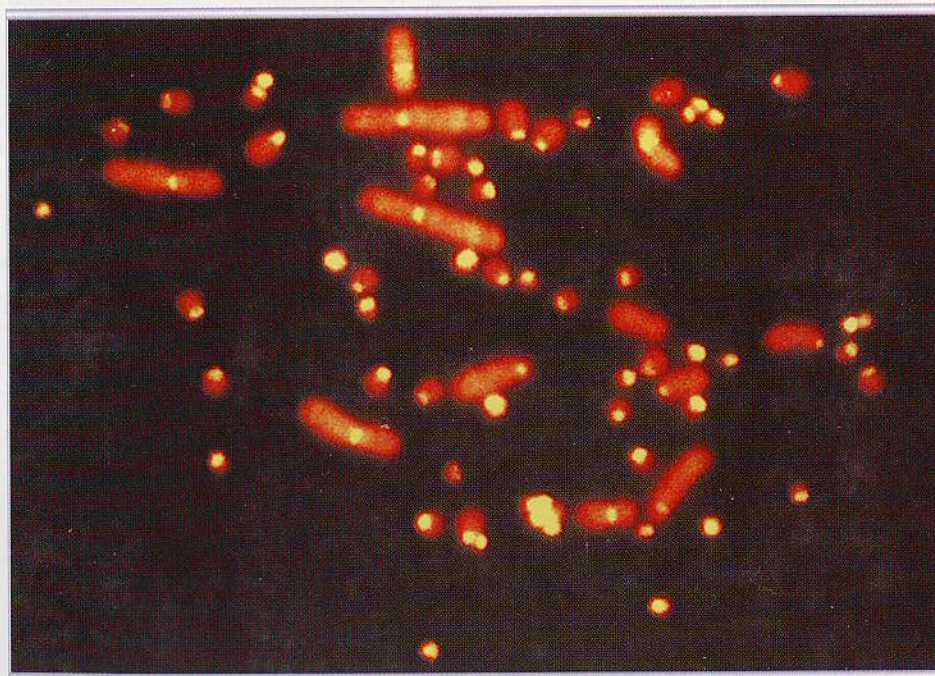


DEPARTMENT OF POULTRY BREEDING AND GENETICS

Head: Dr. HIDAS, András • Telephone: +36-28-511-308 • E-mail: hidas@katki.hu

Cytogenetic laboratory of the department investigates poultry and mammalian chromosome abnormalities, polymorphisms and related evolutionary questions. Cytogenetic background of fertility problems and physical localization of known DNA sequences on chromosomes (chromosome mapping) are also studied. Research in molecular genetics focuses on gene reserves with

genetic diversity studies on poultry, rabbit and honeybee to characterize different genotypes and to estimate inbreeding and genetic distances of individuals and populations. By studies of new genetic markers and their possible relations to phenotypic traits department searches for tools in marker assisted selection.



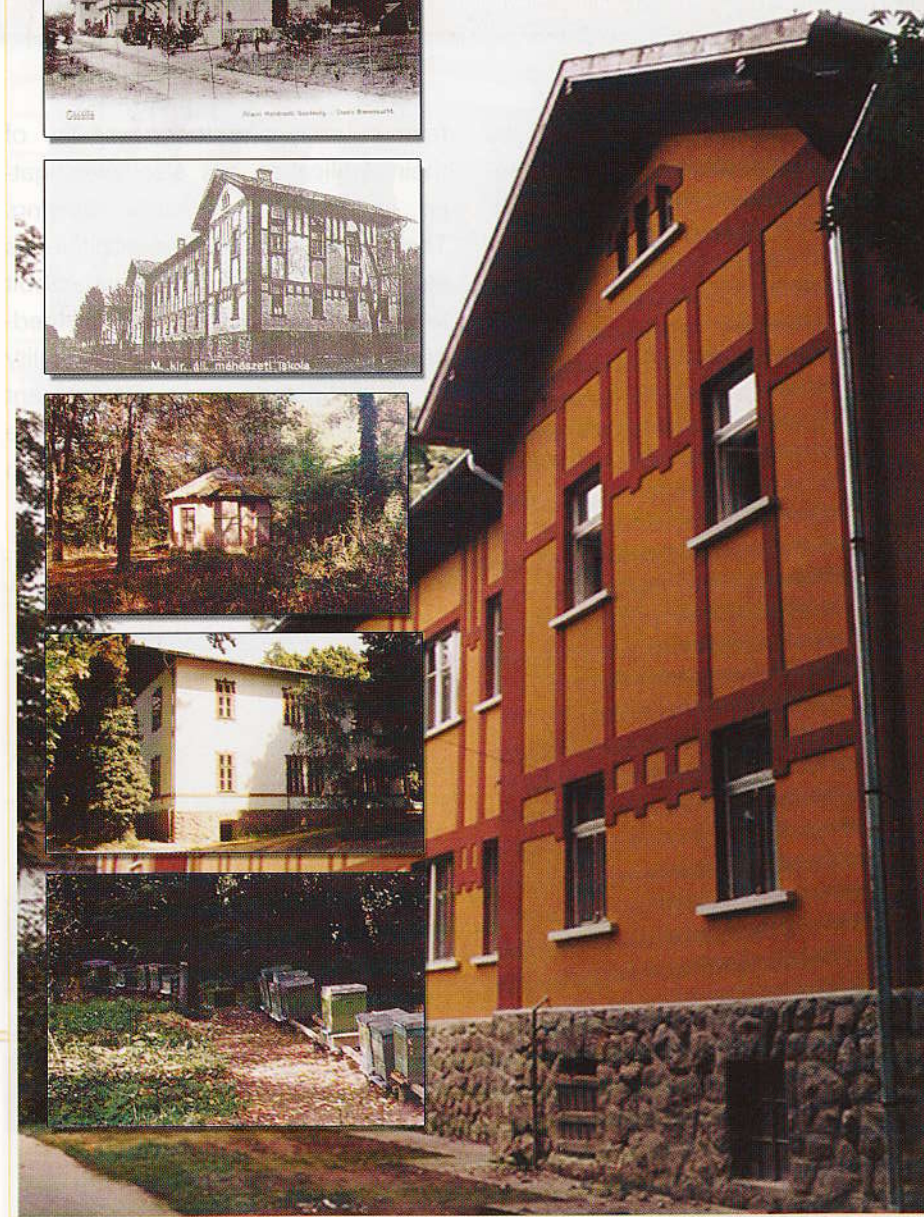


DEPARTMENT OF HONEYBEE BREEDING AND BEE BIOLOGY

Head: Dr. SZALAINÉ, MÁTRAY, Enikő • Telephone: +36-28-511-344 • E-mail: matray@katki.hu

Main activities of the department are control and selection of bee families by their productivity and breed characteristics, improvement of selection and management methods, investigation of various bee keeping technologies. Its honey laboratory elaborates methods for honey qualifying, microbiological laboratory studies bee health problems. The department serves as the

centre for flowering observation network in the country, supervises the apiary collection (museum) and the apiary park of ISR, and performs the duties of the national honeybee breeding control in Hungary.

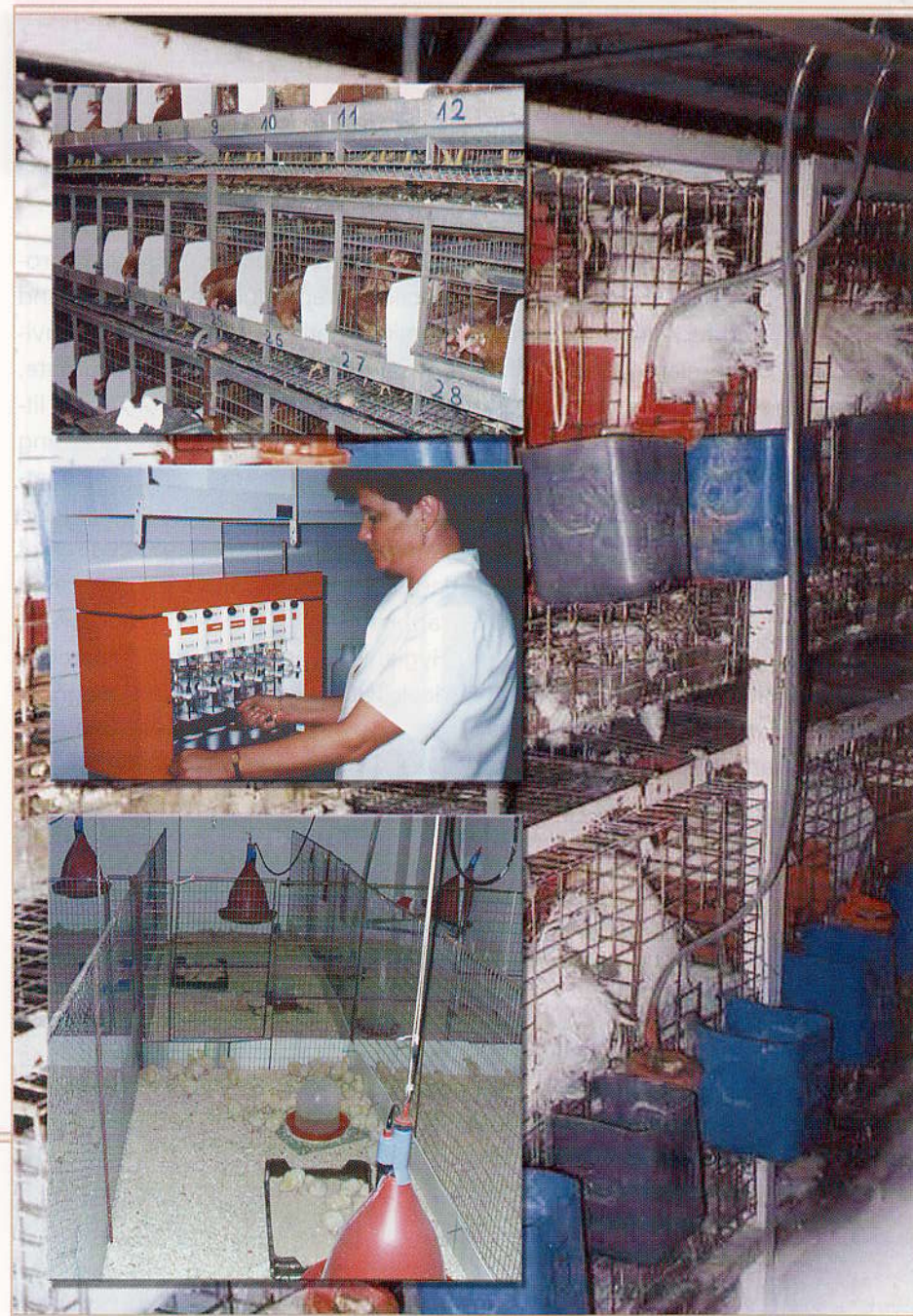


DEPARTMENT OF NUTRITION

Head: KÖRÖSINÉ, Dr. MOLNÁR, Andrea • Telephone: +36-28-511-314 • E-mail: amolnar@kafki.hu

Department of Nutrition improves feeding methods in alternative management systems of different poultry species and of rabbit. Department investigates energy and protein incorporation into the body of poultry and rabbit under various feeding, housing (indoor and free range) and environmental (high temperature) conditions. The feeding values of new and underutilised

feed sources and the possibility of their application are also investigated in poultry and rabbit feeding. The use of organic feed additives is also searched for poultry and rabbit feeding. The effect of different feeding methods on the carcass quality is investigated too. Department makes experiments to reduce the negative effects of heat stress in poultry husbandry.



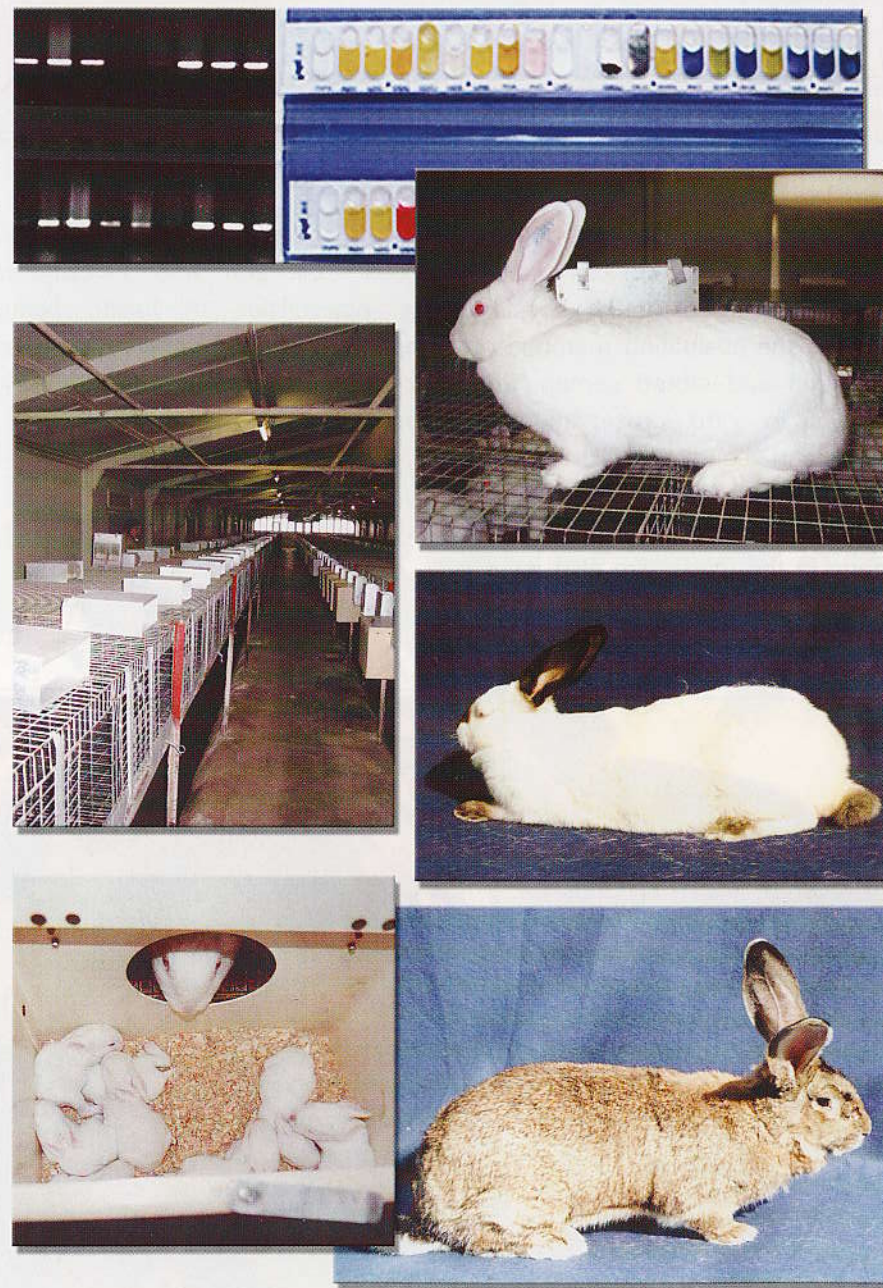


DEPARTMENT OF RABBIT BREEDING AND GENETICS

Head: Dr. EIBEN, Csilla • Telephone: +36-28-511-337 • E-mail: eiben@katki.hu

The department is responsible for breeding and preserving the rabbit stocks of purebred New Zealand White and Californian breeds. The purpose of researches in the field of genetics, reproduction, housing & management, nutrition and animal welfare & hygiene is to develop different production systems with respect to the type of production (intensive, alternative and small-scale breeding). This activity contributes to the scientific validation and modification of operative EU recommendations for rabbits.

Studies are focusing on semen production, reproductive rhythm and nursing methods. The effect of environmental factors (microclimate, type of cages, housing on deep litter) on the performance of breeding and growing animals are investigated. Another topic is the intensive and alternative nutrition (feeding of lactating does and early-weaned rabbits, natural feed additives). Hygienic and welfare researches deal with prevention and diagnostics (Pasteurellosis, Coccidiosis).



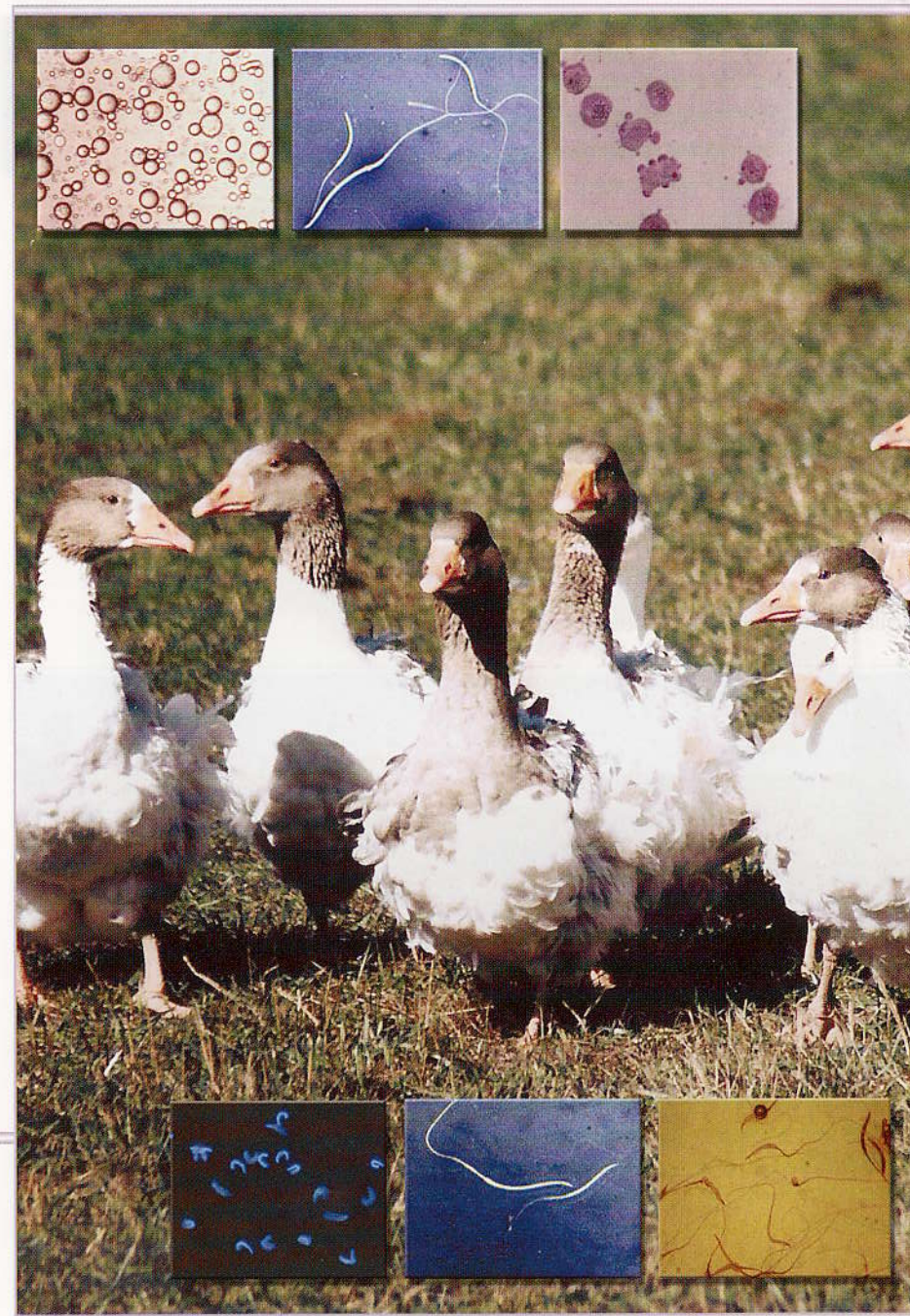
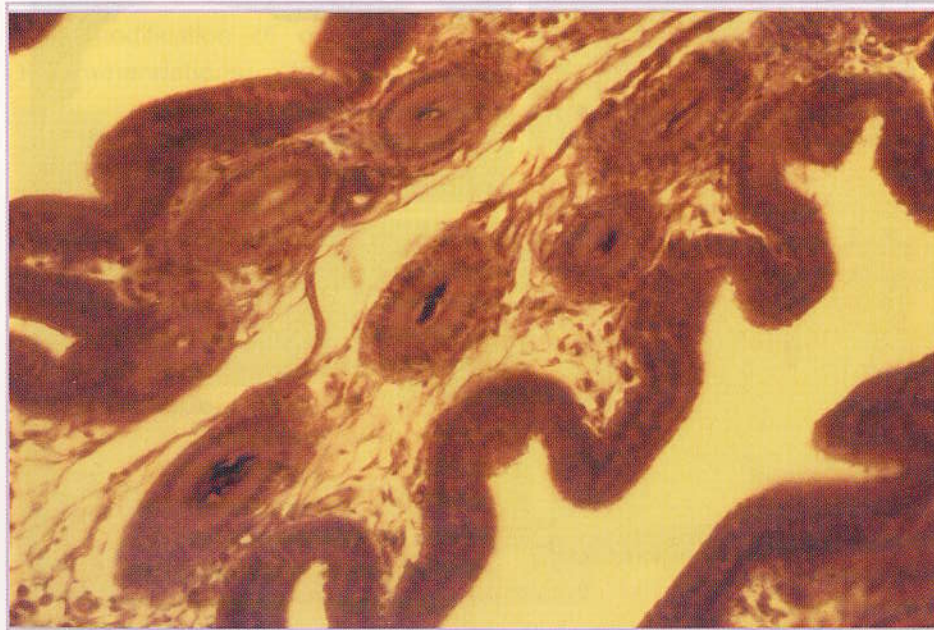


DEPARTMENT OF POULTRY REPRODUCTION

Head: Dr. BARNA, Judit • Telephone: +36-28-511-310 • E-mail: barna@katki.hu

Department of Poultry Reproduction studies natural and artificial mating systems of different poultry species, improves the evaluation methods of both fresh and stored semen, and develops in vitro preservation of semen and early embryonic cells for gene conservation purposes. Mechanisms of avian in vivo sperm storage in the uterus are also investigated. The department supervises the animal health care activities in

the ISR Poultry Gene Bank and Breed Collection and investigates the possibilities of health status improvement of poultry breeding stocks (Mycoplasma and Salmonella control).



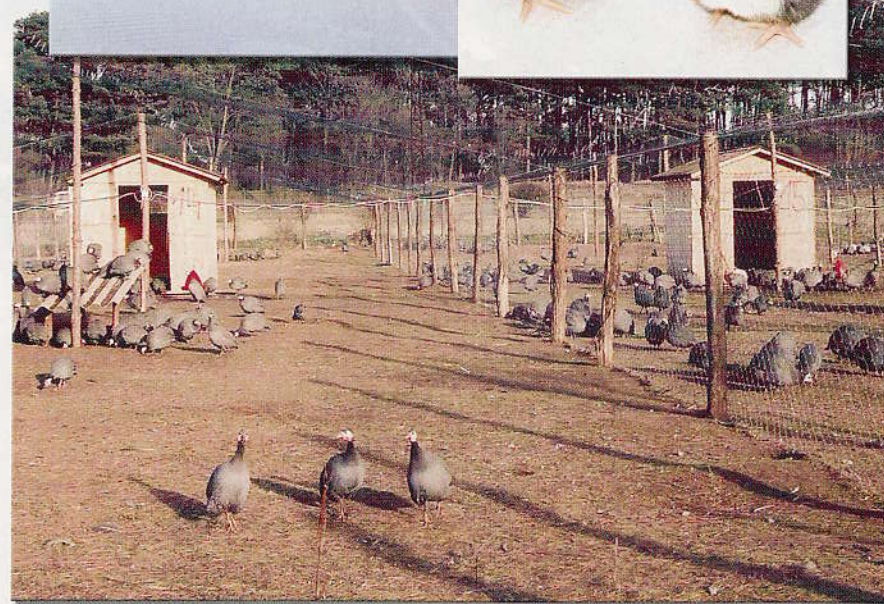
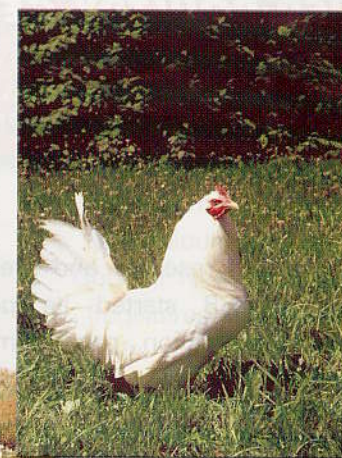
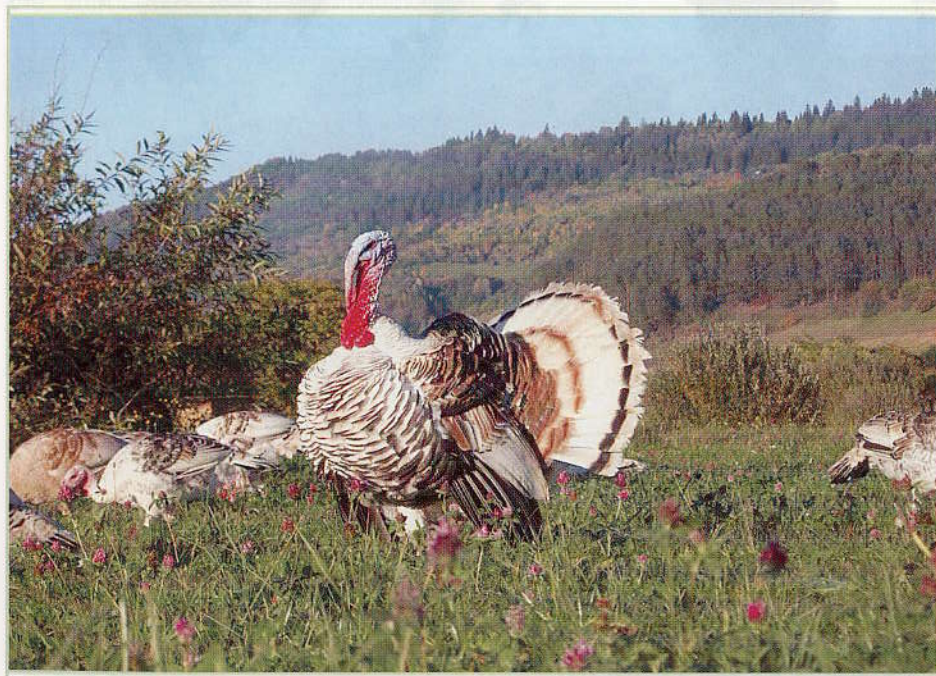


DEPARTMENT OF AGRARIAN ECOLOGY AND GENE CONSERVATION

Head: Dr. SZALAY, István • Telephone: +36-28-511-335 • E-mail: szalay@katki.hu

Research activities of the department cover basic and applied research in poultry gene conservation, utilization of alternative poultry breeds and development of ecological production systems within the frames of the National Agro-environment Protection Programme. It supervises conservation work of the ISR Poultry Gene Bank and Breed Collection of several local Hungarian

breeds and varieties of high genetic value, including chicken, turkey, Guinea fowl, duck and the frizzled Hungarian goose. Stock breeding activity extends towards the elaboration of new breeds and crosses for special quality and free range products.





ISR POULTRY GENE BANK AND BREED COLLECTION

Chief breeder for ISR: Dr. SZALAY, István • Telephone: +36-28-511-335 • E-mail: szalay@katki.hu
Chief breeder for poultry gene bank: BARTA, Ildikó • Telephone: +36-28-511-315 • E-mail: ibarta@katki.hu

Parallel with research and breeding activities, ISR started its poultry gene conservation programme in 1990. During the last decade the Institute has developed the most complete and most valuable poultry gene bank and breed collection in Hungary.



Indigenous and protected poultry breeds and varieties

Poultry breed collection

Chicken	White Hungarian chicken Yellow Hungarian chicken Speckled Hungarian chicken Partridge-colour Hungarian chicken (under development) White Transylvanian Naked-neck chicken Black Transylvanian Naked-neck chicken Speckled Transylvanian Naked-neck chicken	Chicken	Special genotypes bearded, crested, frizzled, naked-neck and colour varieties Gödöllő New Hampshire (registered breed), its white and naked-neck variety Gödöllő White Plymouth (registered breed), and its naked-neck variety Rhode Island, red and white varieties
Turkey	Copper turkey Bronze turkey	Turkey	Silver-colour variety White-colour variety
Guinea fowl	Colour varieties bluish-grey, white, silver and spotted		
Goose	Frizzled Hungarian goose (white, spotted and grey varieties)		
Duck	White-colour Hungarian duck Wild-colour Hungarian duck		

