

PROGENY TEST ON STATION IN HUNGARY
(preliminary report)

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One of the most effective breeding selection method is the selection of breeding animals on the basis of the performances of progenies. Favourable results could be achieved by the progeny test if the data of the progenies are available in the required number. The progeny test is of great importance when the given trait could not be measured on the animal (for instance, the carcass yield).

Preliminaries:

In the years of 1975-87 several home and international performance tests were carried out at the Research Station, Agr. College Kaposvár, with the populations of Hungarian large-scale farms (State Farm Bikal, Agr.Combine Környe, Co-operative farm Petőfi, Dunavarsány, Agr.Combine Bábólna, ÁTK Gödöllő). In the years of 1977-78, international tests were carried out with the following breeds: INRA (France), GEKO (the Netherlands), New Zealand White (FRG) and Gigant (Denmark).

Because of the changes occurred in the last years in the Hungarian rabbit production, new trends are wanted for the progressive utilization of our rabbit farm. The cause of it was the export trend in the meat production of rabbits. In the maintenance of the competitiveness played an important role the quality of the slaughter rabbits and first of all, the carcass yield. The elaboration of progeny test methods was greatly helped by the earlier experiences of the research workers from France (Vrillon et al., 1979) and the investigations carried out in Hungary and abroad as well, (Szendrő, 1980, 1982, 1984; Varewyck et al., 1986; Ouhayoun, 1983;

Khalil et al., 1986; Rouvier, 1970).

Progeny test:

On the basis of these experiences, the first progeny test station in Hungary for rabbits was built up at the Research Station, Agr. University Kaposvár. At present, male rabbits from the Agr. Combine Környe are tested.

In accordance with the jointly elaborated selection system, the selection of males is carried out stepwise to improve the body weight gain and carcass yield.

In the first step, the body weight gain of the young rabbits is measured between 6-12 weeks of age. Semen is collected from the best mature males.

In the second step, the males producing small quantity and poor quality of semen are eliminated. The does on the test station are inseminated with the semen of the best males. Depending on the season, about 8-10 does per male should be inseminated to have progenies from 5-6 does.

The young animals are weaned at the age of 35 days and the daily weight gain is measured between 6 and 12 weeks of age. About 20 progenies per male are slaughtered and the carcass yield is corrected to the same weight (2,5 kg).

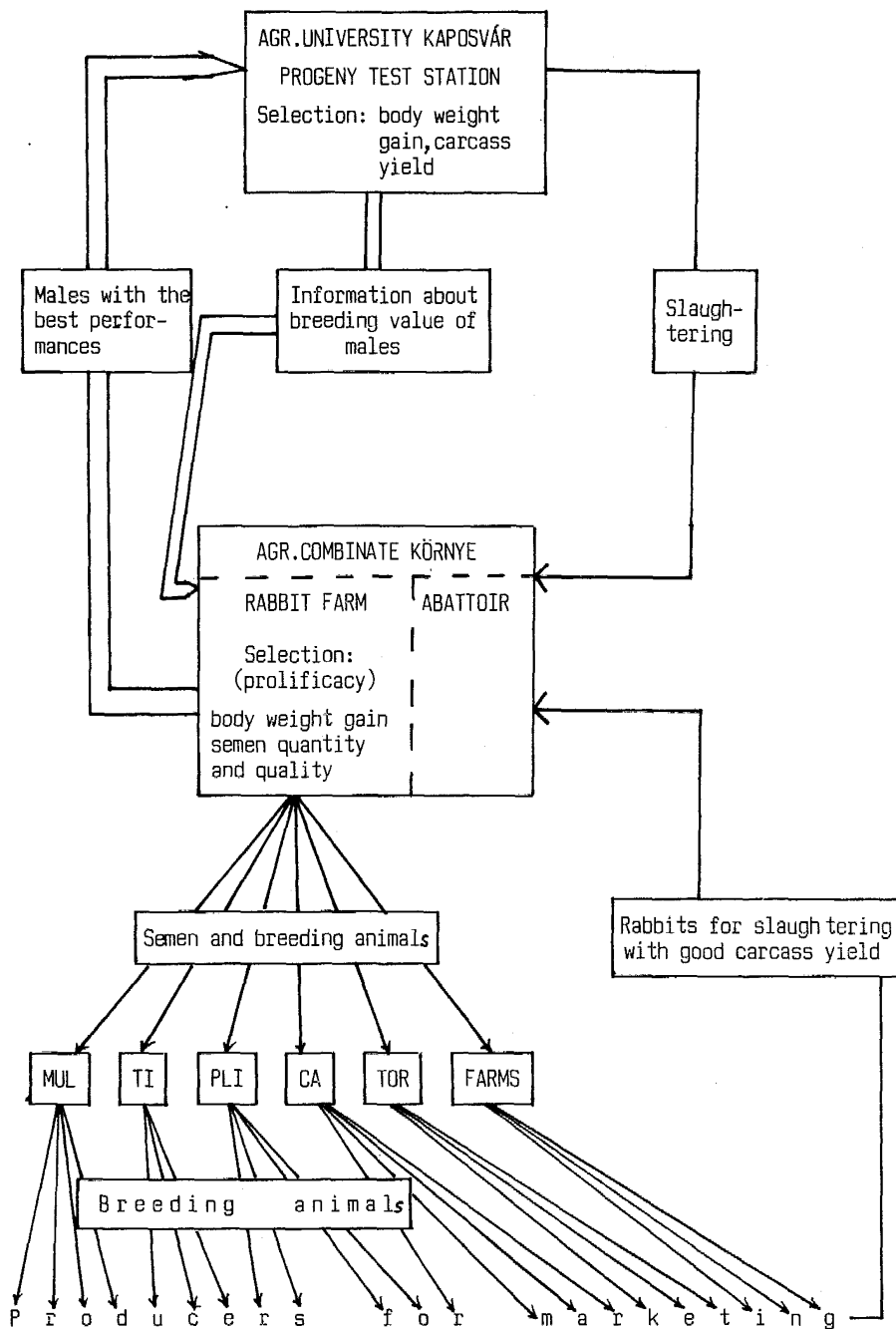
The ranking of the males is carried out on the basis of the average body weight gain and corrected carcass yield of the progenies. The males with the best performances will be used for the production of the next generation.

The selection efficiency is increased by the use of artificial insemination at the rabbit farm of the Agr. Combine Környe. The genetic progress achieved by the central farm could be transferred into the multiplier farms and into the farms producing for marketing. The artificial insemination plays an important role in the transfer of genetic superiority.

By the use of the semen from the best males, the daily weight gain and carcass yield of the rabbits could be improved on the multiplier farms and on the farms producing for the market. At present, progeny tests are carried out for only one farm and we are going to extend the system.

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The authors give a short survey of a multi-stage breeding system based on the progeny test and developed by the Agr.University Kaposvár and the Agr. Combine Környe to improve the body weight gain and carcass yield of young rabbits. The individual selection is carried out in the first stage on the basis of the average daily weight gain and in the second stage based on the semen parameters. The semen of the best males will be sent to the progeny test station to inseminate the does. The best males are selected on the basis of the body weight gain and carcass yield of the progenies and the mating is carried out with the semen of these males. An important role plays the artificial insemination in the spreading of the achieved genetic progress in the population of the multiplier and individual producing farms for marketing.

ZENTRALE NACHKOMMENPRÜFUNG IN UNGARN

Verfasser machen ein mehrstufiges, auf die Nachkommenprüfung begründetes Zuchtsystem bekannt, das durch die Agr. Universität Kaposvár und das Landw. Kombinat Környe zur Erhöhung der Massenzunahmen bei jungen Kanimchen und der Schlachtausbeute erarbeitet wurde. Die Selektion wird in der ersten Stufe aufgrund der durchschnittlichen täglichen Massenzunahme und in der zweiten Stufe aufgrund der Samen-Parameter durchgeführt. Die Samen von besten Böcken werden zwecks Befruchtung der weiblichen Tieren zur Zentral-Station geliefert. Die Elite-Böcke werden aufgrund der Massenzunahmen und Schlachtleistungen der Nachkommen ausgewählt und die beste weibliche Tiere mit den Samen der besten Böcken befruchtet. Die künstliche Besamung spielt bei der raschen Verbreitung des genetischen Fortschrittes eine wichtige Rolle. Dadurch können die Tiere in Stammzucht-Betrieben und in Produktions-Beständen veredelt werden.

