



ARRS

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Project

Member of University of Ljubljana	University of Ljubljana, Biotechnical Faculty
Code	V4-1817
Project	Technological innovations to improve animal welfare in poultry and pigs
Period	1.11.2018 – 31.10.2020
Head	Manja Zupan
Research activity	Biotechnical sciences
Co-financing Organisation	Ministry of Agriculture, Forestry and Food
Abstract	<p>In modern society, the welfare of farm animals has an important role in ensuring the sustainable development of agriculture-livestock production in Europe and worldwide. We have to be aware that such development can be achieved only by the introduction of new or upgraded production technologies. This requires new knowledge in the fields of ethology, housing and management systems, as well as health care. In pig and poultry production, new housing systems limiting keel bone damage in laying hens and tail biting in group housed pigs need to be developed. Following this, laying hens will be exposed to additional source of vitamin D while pigs will be given a social toy as an enrichment object, which has never been tested in the practice before. Risk factor analysis for tail biting (known to reduce pigs' life quality, pork quality and cause great economic losses) will contribute to a greater awareness of breeders and professional service on this issue. For the first time, a report on the welfare of turkeys in Slovenian flocks will be provided and a draft protocol for assessment of turkey welfare</p>

	<p>developed. The goal of the project is also to optimise the welfare assessment protocol for broilers and to check possible correlations between the objective indicators of broiler chick quality in the first week of life and welfare score before slaughter. The analysis of collected data will help competent authorities in monitoring the welfare of pigs, laying hens, broilers and turkeys. Three scientific organizations from two different Slovenian universities will participate in the project together with economic company and public agricultural professional service. The emphasis of the project is to gain comprehensive ethological knowledge under commercial conditions and to involve farmers in the development of technological innovations for animal friendlier rearing conditions and safer food for consumers. The project will also contribute to the recognition of Slovenia in the research field of farm animal welfare.</p>
<p>Researchers</p>	<p>SICRIS</p>
<p>The phases of the project and their realization</p>	<p>The project, which includes laying hens, broilers, turkeys and pigs, is divided into two thematic sections. The first thematic section (DP 1) refers to the poultry part of the project, which will focus on assessing the welfare of fattening poultry (chickens and turkeys) in the field conditions at Perutnina Ptuj farms. In broiler chicks, we will use the data available from the previous CRP V4-1604 project to identify the potential quality indicators for broilers during the first week, which significantly influence the assessment of welfare before slaughter and include them in the draft of a new protocol for the assessment of animal welfare. We expect the evaluation to be obtained in the second year of the project. In DP 1, we will conduct an experiment on laying hens at the Department of Animal Science at the Biotechnical Faculty of the University of Ljubljana, more precisely Rodica, and they will be exposed to vitamin D supplementation under controlled research conditions, with the aim of studying keel bone damage. The experiment will start half a year after the start of the project. The centerpiece of the second thematic section (DP 2) is to find new solutions to prevent the occurrence of tail biting in pigs with intact tails. A practical experiment to be carried out in the autumn / winter and spring / summer period of the first year of the project will take place on pig farms under the auspices of the Chamber of Agriculture and Forestry Ptuj and Murska Sobota. At the farms, we will study the impact of the use of the toy on the frequency of the occurrence of biting of the tail and ears. The emphasis is mainly on animals that will not have shortened tails. Because tail biting is a complex phenomenon and often under the influence of a number of factors, we will make an assessment of the risk of the phenomenon of</p>

	<p>this form of behaviour in Slovenia, through questionnaires. Slovenian pig breeder consultants will collect data for the year and a half through the Chamber of Agriculture and Forestry of Slovenia. This will be followed by an analysis of responses. Within each thematic section, we will organize workshops and meetings with partners and external collaborators in the first and last trimester.</p>
Citations for bibliographic records	<p>http://izumbib.izum.si/bibliografije/N20190313120714-30765.html</p>