



## MEDIA INFORMATION

Institute for Farm animal Biology

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# Enriched feed for chickens to improve the nutritional situation in Ethiopia

## First pilot study with African Research Institute successfully completed

**The Cooperation Agreement, which was concluded 2019 between the Institute for Farm Animal Biology Dummerstorf (FBN) and the International Livestock Research Institute Nairobi (ILRI/Kenya) comes to fruition. In collaboration with the Institute for Muscle Biology and Growth at FBN, Desalew Tadesse, PhD student from Ethiopia, successfully completed a pilot study for improving the quality of nutrition in Africa.**

"This involved enriched chicken feed with flaxseed and extracts of the so-called sandolive, a widespread and climatically undemanding spice shrub plant called *dodonae angustifolia*," said FBN project leader Dr. Dirk Dannenberger. "Ethiopia is one of the poorest countries in the world. Valuable foods such as fish, fresh fruits and vegetables are difficult to access for large parts of the population. Chicken, however, are easy to keep even in Africa. Currently, about 96 percent of the poultry products (eggs and meat) come from local chicken, raised in rural husbandry, while only four percent are from intensively reared chicken breeds. The approach is to use enriched feeds for the chickens to enhance the nutritional value of the eggs and the meat of the animals and thus to add value to the diet of the local population. This affects especially the content of beneficially omega-3 fatty acids and antioxidants, but also additional proteins and vitamins.

The aim of the pilot study was to evaluate the effects of a combined supplementation of the feed of Sasso chickens with flaxseed and extracts of leaves of the native wild Sandolive shrub (*dodonae angustifolia*) on the content of omega-3 fatty acids and the oxidative stability of egg and meat. The feed was enriched with different doses of plant extracts. "The pilot study showed that even small additions of flaxseed and plant extracts significantly increased the health-promoting quality of the meat and the eggs" Dannenberger said. "This created the prerequisite to launch more extensive studies and test series in Africa."

## Background of the Cooperation

At a meeting of ILRI researchers with FBN scientists in Nairobi (Kenya) and Addis Ababa (Ethiopia) in May 2018, a number of joint research interests were aligned, such as greenhouse gas emissions reduction, breeding design, animal welfare, as well as stress and disease resistance in livestock. In early 2019, the scientists from ILRI visited the FBN for the first time and concluded a cooperation agreement.

The International Livestock Research Institute ([www.ilri.org](http://www.ilri.org)) is one of 15 CGIAR Research Centers (Global Research Partnership for a Food Secure Future/[www.cgiar.org](http://www.cgiar.org)) and the only

centre dedicated exclusively to research on Livestock in developing countries. ILRI's campuses are located in Kenya and Ethiopia. ILRI also has regional- and country offices in 14 other locations in Africa, South and Southeast Asia. Research topics include animal productivity, food safety and zoonotic diseases, animal husbandry and the environment as well as politics, institutions and livelihoods.

The FBN cooperates with research institutions worldwide, especially with partners from EU countries within the framework of a wide range of EU projects. It has furthermore cooperations with India, Turkey, New Zealand, USA, Canada, China, Australia, Brazil, Nigeria, Kenya, Egypt, Ethiopia, Iran, Thailand, Chile, Israel and Russia. This involves currently more than 100 research projects in cooperation with 355 institutions from 41 countries.

## Photos: ILRI

Desalew Tadesse and a co-worker feeding the Sasso chickens. What they eat, affects directly the quality of the animal products.

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