



NaLIRRI Roundup

NATIONAL LIVESTOCK RESOURCES RESEARCH INSTITUTE
28TH SEPT - 4TH OCTOBER 2025 | ISSUE 4

NALIRRI MERGES VACCINOLOGY AND BIOSCIENCES PROGRAMS TO BOOST EFFICIENCY

In a strategic move, NaLIRRI has merged its Vaccinology and Biosciences programs to create synergies, improve efficiency, and strengthen delivery of livestock health solutions. The integration is expected to accelerate vaccine research, diagnostic innovations, and livestock improvement efforts while optimizing use of resources and expertise across the institute. Last week, an entry and sensitization meeting was held with staff from both programs and top management in attendance, marking the official start of the transition.

Under the new program, NaLIRRI will continue advancing viral and bacterial vaccines, including interventions for Foot and Mouth Disease, East Coast Fever, African Swine Fever, Lumpy Skin Disease, CBPP, and CCPP – alongside research into parasite vaccines such as anti-tick and anti-helminthic vaccines. Cutting-edge tools such as CRISPR/Cas9 gene-editing systems are being applied to develop disease-resistant animals and novel vaccine platforms.



On the biosciences front, the program will continue to lead research in nutritional biosciences, bioinformatics, diagnostics, molecular biotechnology, and ethnoveterinary medicine. This includes developing advanced diagnostic tools, screening technologies, disease monitoring maps, and ethnoveterinary formulations, as well as assessing the nutritional quality of livestock feeds and forage diversity.

This merger positions NaLIRRI to better respond to the complex challenges of livestock health and productivity, while contributing to Uganda's and the region's goals of sustainable livestock development and One Health innovation.



AFLASAFE PRODUCTION EQUIPMENT ARRIVES AT NALIRRI-NAKYESASA

NARO has taken a major step towards local production of Aflasafe, a biocontrol product developed by NARO in partnership with IITA to combat aflatoxin contamination. The main equipment – including a cleaner, roaster, mixer, and packing and sealing units – recently arrived at NaLIRRI-Nakyesasa, where the production facility is based.

With a capacity of 1 tonne per hour, the plant will soon begin operations to produce Aflasafe locally and make it more accessible to farmers. The next step is installation of the equipment, paving the way for production to commence before the end of this year. This milestone positions Uganda to reduce reliance on imports and expand adoption of safe, affordable aflatoxin-control solutions for improved food and feed safety.

NUTRITION AND DAIRY EQUIPMENT ASSEMBLY IN ADVANCED STAGES

The installation of newly procured nutrition and feed processing equipment at NaLIRRI is now in advanced stages. The equipment includes a drying facility for aeroponic products and another for insects for food and feed, both designed to enhance protein quality and add value to underutilized cereals, legumes, and insect-based feeds for livestock.

This investment complements the dairy processing equipment that arrived earlier in June–July 2025. Once fully operational, the dairy platform will support the production of pasteurized milk, yoghurt, cheese, milk powder, ice cream, whey protein, and casein, boosting value addition and expanding NaLIRRI's research capacity in dairy and livestock nutrition.



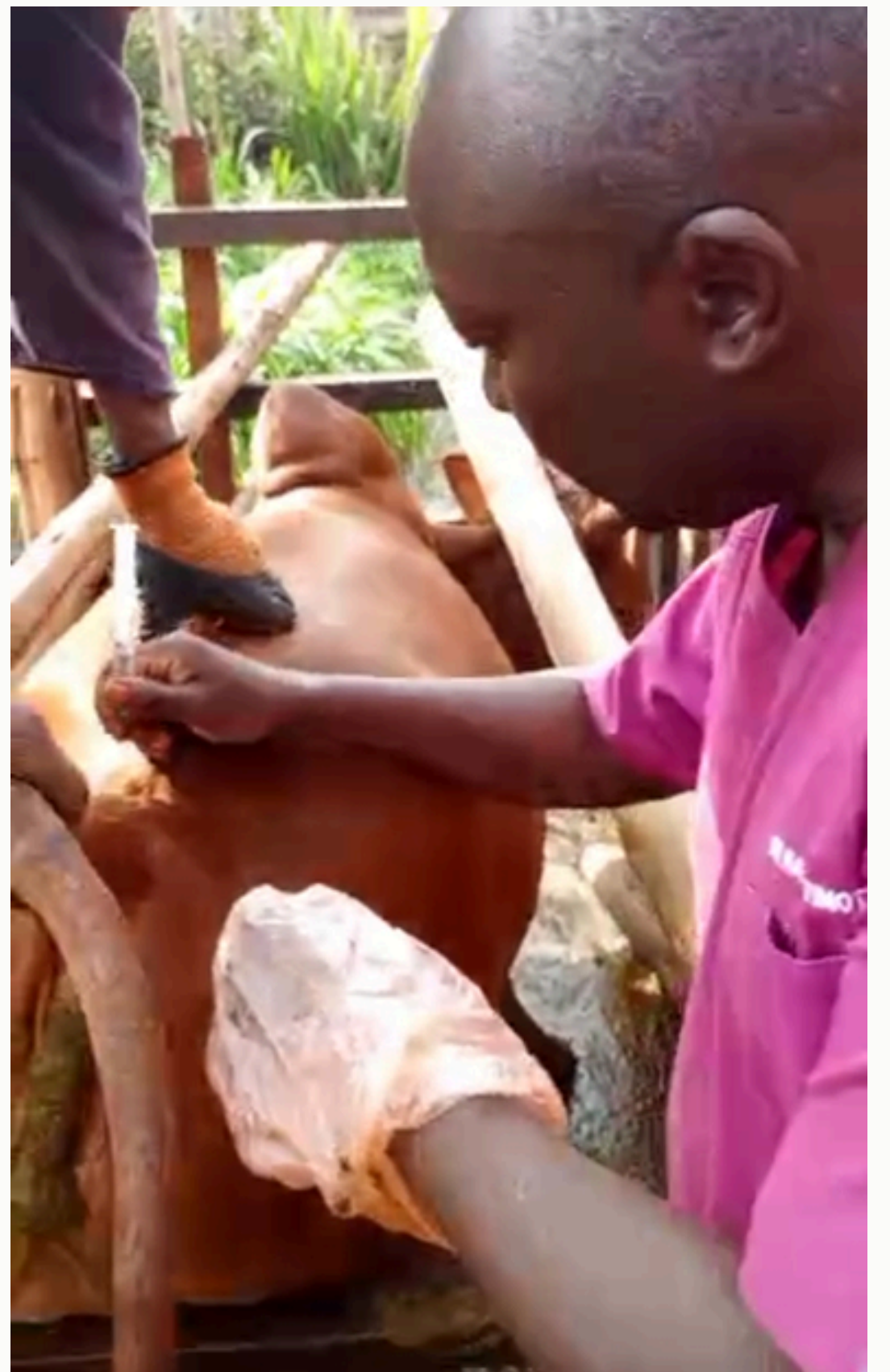


ADVANCES IN EMBRYO TRANSFER AND ASSISTED REPRODUCTIVE TECHNOLOGIES

NaLIRRI is steadily advancing the use of embryo transfer technology as part of assisted reproductive technologies (ARTs) in livestock improvement. Six weeks ago, 10 animals were served on a farm in Wakiso District, and a pregnancy monitoring visit last week confirmed two successful conceptions.

NaLIRRI is currently working with five farms in the Kampala Metropolitan area, with four more with 20 surrogates scheduled for embryo transfer between October and November 2025.

As part of the CGS-ARTs project, which seeks to address technical barriers to the wider use of ARTs in Ugandan dairy cattle, NaLIRRI is also focusing on improving heat detection and conception rates.



Activities include hormonal synchronization and optimization of embryo and semen handling protocols. Last week, the team inseminated an additional 12 cows following synchronization with the OVSYNCH-PRID protocol, designed to induce heat with precision. Pregnancy diagnosis for these animals will be conducted in six weeks.

In goats, NaLIRRI is working with a farm in Hoima under the CGS Goats Project, focusing on optimizing synchronization and artificial insemination protocols in local breeds. Last week, 40 Mubende and Small East African goats were served with Red Kalahari semen, an intervention aimed at accelerating genetic improvement and boosting productivity in Ugandan goat flocks.



NALIRRI STAFF TRAINED ON SILAB LABORATORY INFORMATION SYSTEM

From 1st to 2nd October 2025, NaLIRRI hosted a refresher training on the SILAB for Africa (SILABFA) Laboratory Information Management System (LIMS), led by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) through the National Animal Disease Diagnostics and Epidemiology Centre (NADDEC). The training focused on both installation of SILABFA on NaLIRRI servers and building staff capacity to manage laboratory data efficiently. A total of 20 participants from key laboratories – Livestock Breeding, Mycotoxin Food and Feed, Livestock Nutrition, and the Infectious Animal Disease Laboratory –

received hands-on sessions covering sample reception, tracking, result entry, report generation, and data analysis. The system will improve traceability, data quality, and compliance with ISO 17025 standards, strengthening NaLIRRI's ability to produce reliable and secure laboratory results. The training also emphasized customization of tests to specific labs and continuous user support, with plans for follow-up sessions and refresher courses to ensure sustained use. This marks a significant step in upgrading NaLIRRI's data management and research infrastructure for livestock health and diagnostics.