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Laboratory Facilities in BLRI



Bangladesh Livestock Research Institute
Savar, Dhaka 1341
Ministry of Fisheries and Livestock



Bangladesh Livestock Research Institute Savar, Dhaka-1341

Vision

Conducting research activities and developing technologies in view of national needs for livestock development.

Mission

To meet up the demand of safe animal protein by increasing production and productivity of livestock through research.

Research and laboratory activities under different divisions of BLRI

BIOTECHNOLOGY DIVISION

Feed & Nutritional Biotechnology Laboratory

- Milk Analysis
 - Fat, SNF, Protein, Lactose, etc.
- Microbial counting
 - Total viable count, Total Lactic Acid Bacteria count, Coliform count & Salmonella Count
- Biogas Analysis
 - CH_4 , CO_2 , O_2 , NH_3 & H_2S

Reproductive Biotechnology Laboratory

- Evaluation of semen quality

Molecular Biotechnology Laboratory

- Detection of meat adulteration



Biogas Analyzer



Thermal Cycler



Computer Assisted Semen Analysis (CASA)



Milk Analyzer

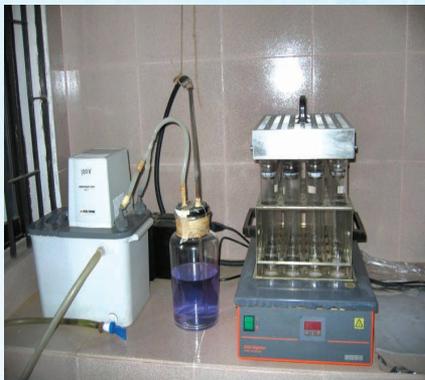
Animal Production Research Division

Animal Nutrition Laboratory

- Determination of Dry Matter (DM), Ash, Organic Matter (OM), Crude Protein (CP), Ether Extract (EE), Crude Fiber (CF), ADF, NDF, Lignin & Gross Energy (GE)



Bomb Calorimeter



CP Digestion Chambers



Crude Fiber Analyzer

ANIMAL HEALTH RESEARCH DIVISION

Antimicrobial Resistance Reference Laboratory (Research)

- Determination of microbial load in food and feed.
- Identification and molecular characterization of microbial isolates from different sources.
- Determination of Antimicrobial Resistance pattern of these isolated bacteria.

Food and Feed Safety laboratory

- Detection & analysis of Chemical contaminants in food.
- Detection & analysis of drug (antibiotics & others) residues in food & feed.
- Detection & analysis of heavy metal residues in feed and food.



HPLC

National Reference Laboratory for Avian Influenza (NRL-AI)

Molecular test

- Conventional PCR
- Real Time PCR

Serological tests

- Hemagglutination (HA) Test
- Hemagglutination Inhibition Test (HI)



VITEK-2



ICP_MS

**SAARC Regional Leading
Diagnostic Laboratory for PPR
Laboratory**

Molecular test

- Conventional PCR
- RT- PCR

Serological tests

- c-ELISA
- Serum Virus
Neutralization Assay

FMD Research Laboratory

Molecular test

- Conventional PCR
- RT- PCR

Serological tests

- ELISA
- Serum Virus
Neutralization Assay

Parasitology Laboratory

- Qualitative &
quantitative test of
parasites
- Detection &
quantification of blood
protozoa.
- ELISA for blood protozoa.
- Conventional PCR for the detection of blood protozoa
& coccidian



Nextseq 2000 Sequencing
System (Illumina)



QuantStudio™ 5 Real
Time PCR System



KingFisher™ Flex DNA/
RNA Extraction Robot

POULTRY PRODUCTION RESEARCH DIVISION

Poultry Feed Analysis laboratory

- Proximate analysis (Dry Matter, Ash, Organic Matter, Crude Protein, Ether Extract, Crude Fiber) of Poultry feed, Meat, Egg, Insects
- Egg quality test



Egg quality detector



UPLC machine

GOAT PRODUCTION RESEARCH DIVISION

Small Ruminants Research Laboratory

- Qualitative & quantitative examination of goat fecal samples
- c-ELISA for the detection of antibody titer from blood samples
- Conventional PCR with electrophoresis and gel documentation system
- Blood biochemistry test (animal)
- Pregnancy detection by Barium chloride solution
- Animal Brucellosis screening test by RBT



Biochemistry analyzer



Nanodrop



ELISA reader



Thermal Cycler

DAIRY RESEARCH AND TRAINING CENTER

Dairy Research Laboratory

Determination of

- Specific gravity of milk, added water, titratable acidity, fat percent, alcohol, hydrogen peroxide, starch, sugar, urea, neutralizer (Rosalic acid), salts, formaldehyde, boric acid, maltodextrins, ammonium compounds, nitrates (pond water), TVC, TCC, yeast and mold & salmonella.

Blood biochemistry test

- Blood cholesterol
- Blood protein
- Blood calcium



LCMSMS Machine



Gerber Fat Test machine



Blood Biochemistry Analyzer



Spectrophotometer

POULTRY RESEARCH CENTER

Poultry Feed Analysis Laboratory

Detection of Cholesterol and Fatty acid in:

- Poultry Feed
- Poultry Meat
- Poultry Egg

Detection of Amino acids in Meat, Feed, Egg

Detection of Vitamins component in Meat, Feed, Egg



UPLC machine