



Agrivet Laboratories

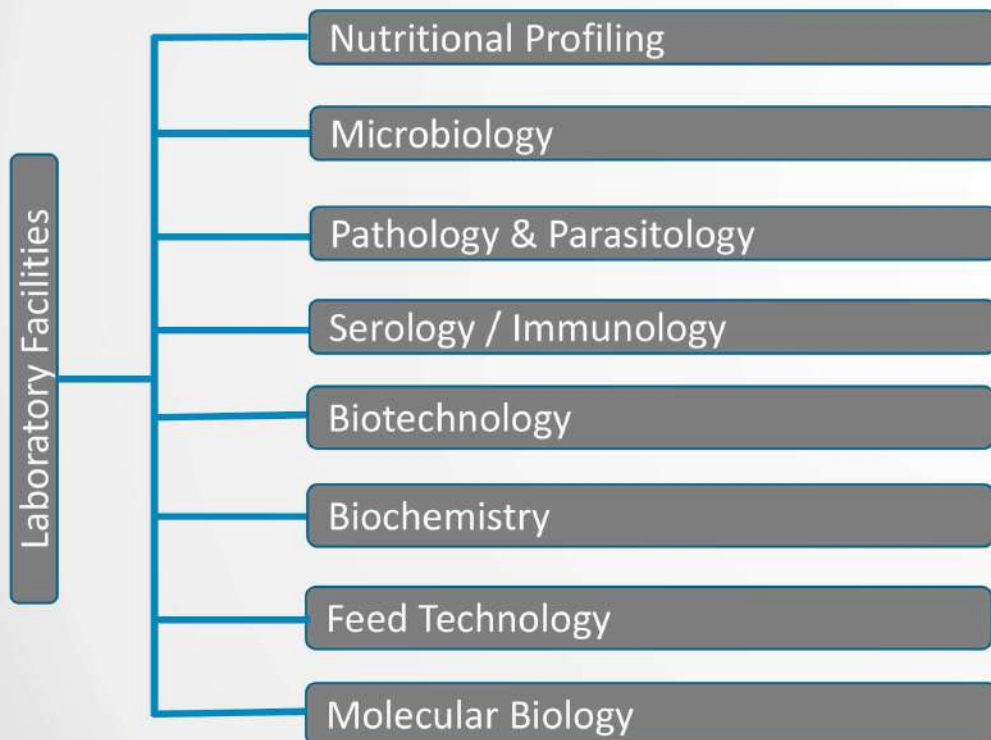


Agrivet Research & Advisory Private Limited
(Formerly known as Agrivet Consultancy Pvt. Ltd.)

www.agrivet.in

Laboratory facilities

AgriVet Research & Advisory Private Limited **delivers wide array of laboratory services to its clients. Offerings of AGRIVET LABORATORIES span from traditional Wet Chemistry, Microbiological, Serological and Biochemical techniques to modern cutting-edge Metagenomics and Transcriptomics.**



- **Well-equipped laboratory set-up**
- **Laboratory is primarily developed for R&D activities**
- **Wide array of services under one roof**
- **Highly qualified, skilled & dedicated laboratory personnel**
- **High precision techniques and processes**
- **Quick TAT for analysis and result delivery**
- **Interpretation of test results**
- **Report is validated by domain experts**
- **IoT based Test Request and online reporting**

Nutritional Profiling

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ARAPL offers **Nutritional Chemical Profiling** of all Compound Feeds and Raw Materials using Fully Automatic Wet Chemistry Techniques as well as Near Infra-Red Spectroscopy (NIRS).

Proximate Analysis

Digestible Amino Acids

Calcium and total phosphorus analysis

Analysis of Peroxide Value, Rancidity and Free Fatty Acid of oil

PSI/KOH Solubility, Urease activity, NPN, Pepsin Digestibility, TVBN

Water analysis of pH, TDS, Total Hardness as Calcium carbonate



Microbial diagnosis using conventional laboratory techniques

Microbiological identification and quantification of *Salmonella sp.*, *Escherichia coli*, *Clostridium sp.*, Total Coliforms, Total Bacterial Count, Total Mold Count and Enterobacteriaceae

Antibiotic sensitivity test using plate test from biological samples

Complete Feed Hygiene & Water Microbiology

Rapid plate test for *M. gallisepticum*, *M. synoviae*, *Salmonella pullorum*

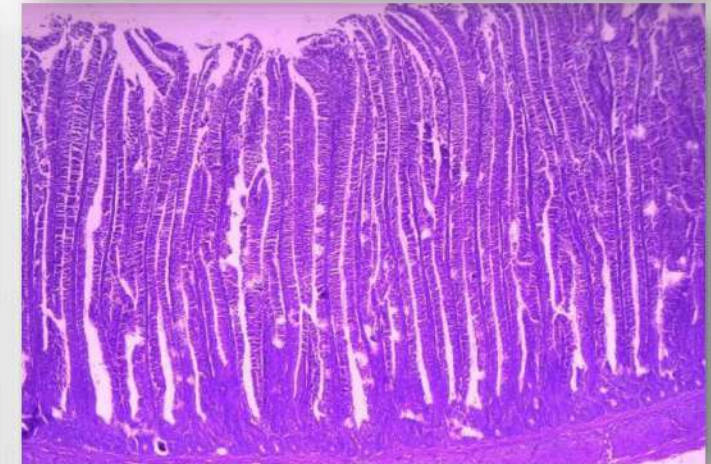
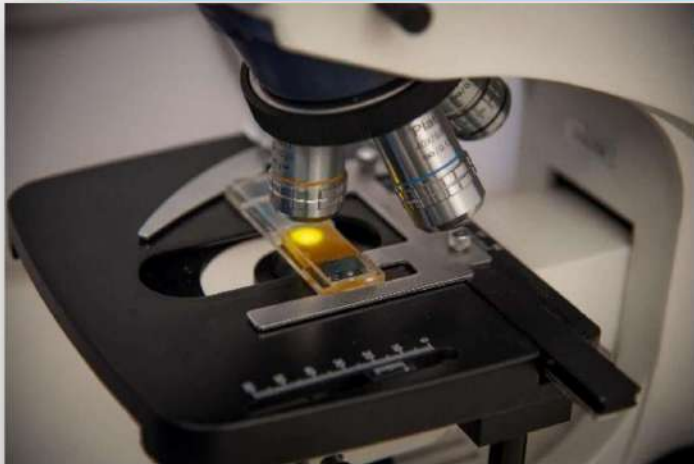
Poultry Farm, Hatchery and Feed Mill Hygiene Management Package



Pathology & Parasitology

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- Despite the priority of modern techniques, histopathology is a reliable and economically reasonable method & can often lead to conclusive diagnosis.
- Histomorphometry and histopathology study of tissues and internal organs
- Post-mortem examination of poultry birds
- Diagnosis of the most common health issues of poultry birds
- Clinical correlation of histopathological lesions
- Coccidia oocyst count from Faecal samples



Serology / Immunology

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Wide range of Serological Assays are performed for the detection and diagnosis of various infectious agents from the blood/serum of Poultry using ELISA technique.

Infectious Bursal Disease

Newcastle Disease

Infectious Bronchitis

Mycoplasma gallisepticum

Mycoplasma synoviae

Avian Encephalomyelitis

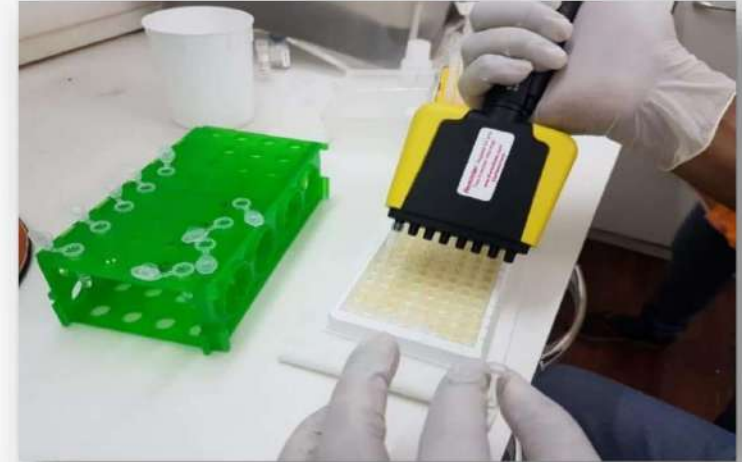
Avian Leucosis Complex

Avian Pneumo Virus

Chicken Infectious Anaemia Virus

Egg Drop Syndrome

Adeno Virus (Inclusion Body Hepatitis-IBH)



Canine, Feline, Ruminant, Swine and Equine tests are also performed

BREEDER SEROLOGY PACKAGE

Sl No	Antibody titre against	ELISA Kit
1	Newcastle disease	IDEXX kit
2	Infectious bronchitis	IDEXX kit
3	<i>Mycoplasma gallisepticum</i>	IDEXX kit
4	<i>Mycoplasma synoviae</i>	IDEXX kit
5	Infectious bursal disease	IDEXX kit
6	Avian Reo virus	IDEXX kit
7	Infectious laryngo trachitis	ID vet kit
8	All 7 Antibody mentioned above	As above



LAYER SEROLOGY PACKAGE

Sl No	Antibody titre against	ELISA Kit
1	Newcastle disease	IDEXX kit
2	Infectious bronchitis	IDEXX kit
3	<i>Mycoplasma gallisepticum</i>	IDEXX kit
4	<i>Mycoplasma synoviae</i>	IDEXX kit
5	Infectious laryngo trachitis	ID vet kit
6	All 5 Antibody mentioned above	As above

Detection of mycotoxins from Raw Materials & Feed

- Modern high-end precision instrument based on lateral flow immune assay technique.
- Basic toxin profile - Aflatoxin, Ochratoxin, T2, Fumonisin
- Advanced toxin profile - Aflatoxin, Ochratoxin, T2, Fumonisin, Zearalenone, DON
- Individual toxin analysis

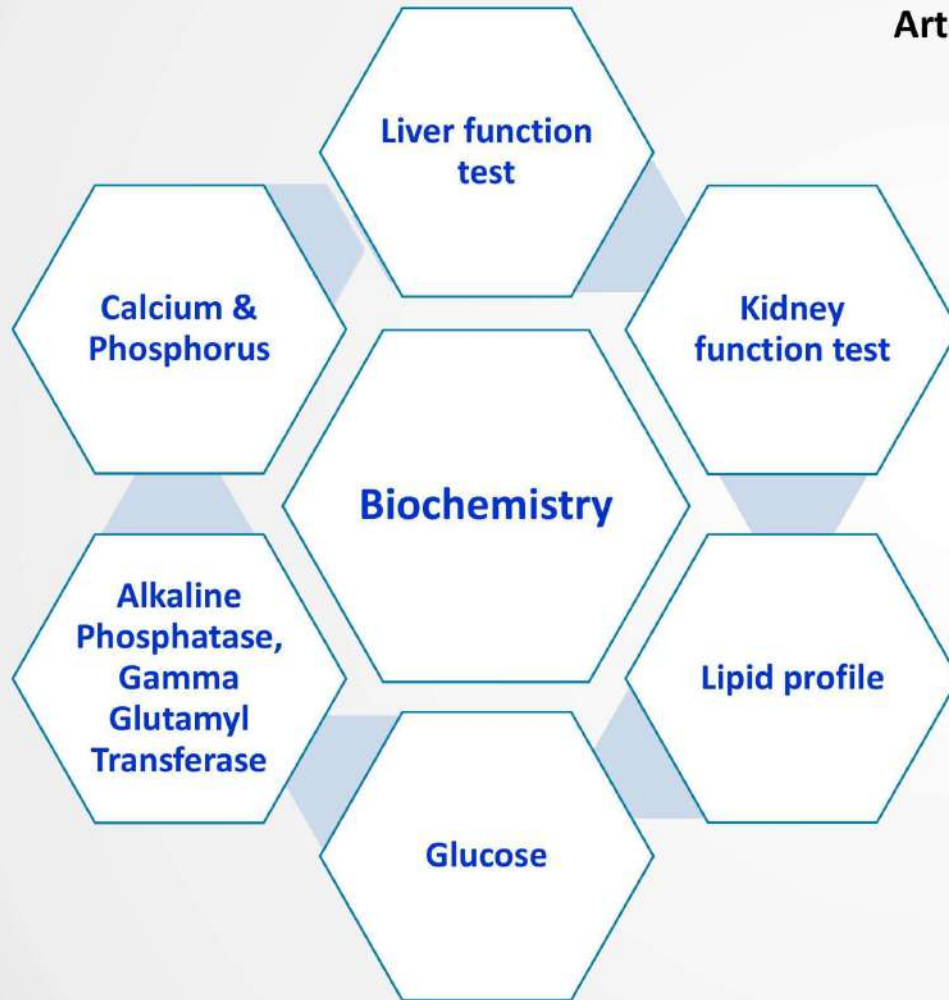
Egg Quality Testing using Automatic Egg Analyzer

- Egg Weight and grading
- Candling of Eggs
- Yolk height, Yolk color, Albumin viscosity and Haugh unit
- Egg Shell Strength and Egg Shell Thickness

Intestinal Viscosity

- Feed ingredients containing high levels of NSP, can form viscous digesta in the GIT, limiting broiler performance.
- Investigation of the effect of digesta viscosity on the development of the digestive tract is required.
- Measurement of Intestinal Viscosity using hi-tech, sophisticated digital viscometer





Arterial Blood Gas (ABG) Analyses:

pH, pCO₂, pO₂, Na⁺, K⁺, Ca⁺, Cl⁻, Lactate, Hb, SO₂, Actual bicarbonate, Hematocrit, etc.



Pellet Durability Index & Pellet Hardness

Residual Fine and Texture Profiling

Pellet Dissociation using mechanical process

Mixing Uniformity Analysis (CV)

Validating Mixing Uniformity, Ingredients Tracking and Cross-contamination Control using Magnetically Retrievable Rotary Detector



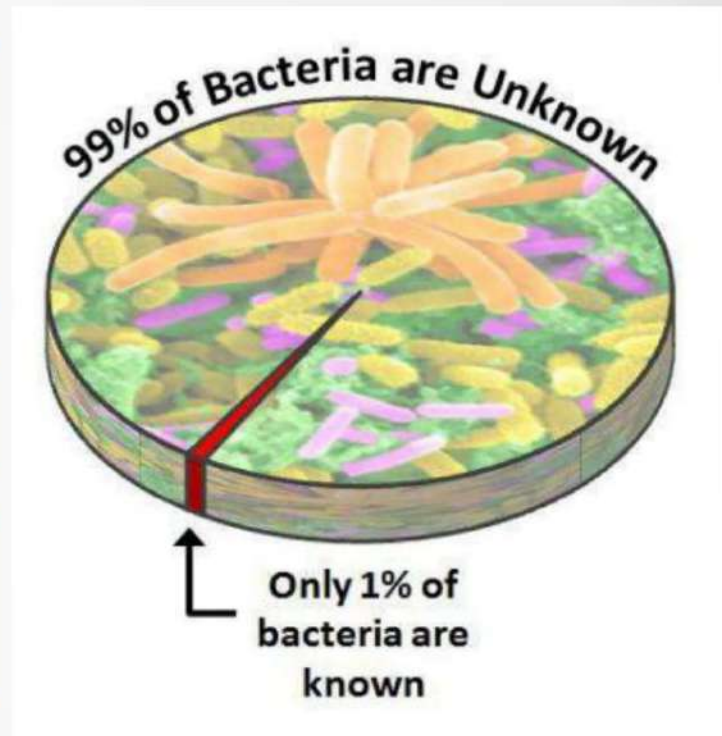
Moving forward from conventional research....

Traditional microbiological procedures in poultry research were extensively based on culture techniques to isolate desirable microorganisms and Sequencing the genome of one organism at a time for Identification purpose.

However, only <1% of all microbes can be cultured.

Hence, these traditional techniques have left us with a biased and incredibly incomplete understanding of the microbial flora.

These limitations and biasedness arising from traditional microbiological techniques can be overcome by the use of metagenomics- which in a broader sense can be referred to as environmental genomics, ecogenomics or community genomics.



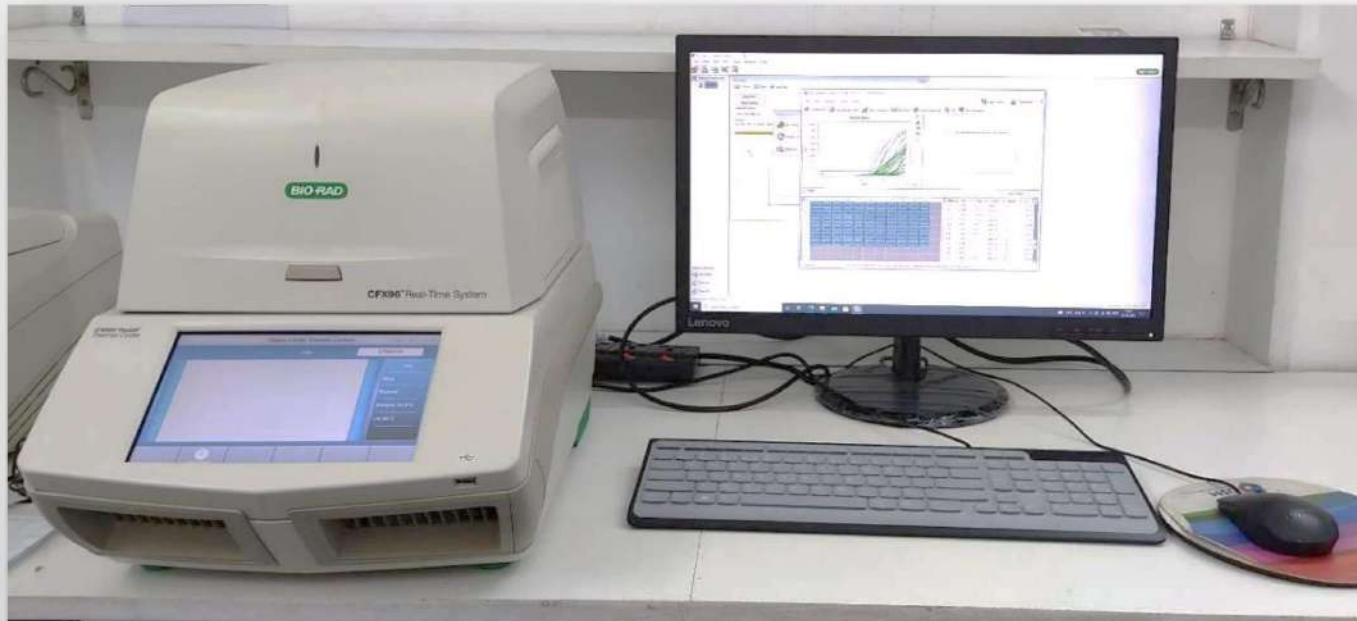
- Metagenomics of Chicken Gut Microbiome
- Molecular Detection of Bacterial and Viral disease
- Assessment of DNA damage and repair by Comet Assay
- Transcriptomic analysis using Quantitative Real-time PCR (qRT-PCR) and RNA-seq.
- Gene expression study on Poultry growth performance, immunogenetics & heat stress
- Nucleic acid extraction from various samples (microbes, animal tissues, environmental samples, etc.)
- Plant RAPD barcoding

Molecular Biology

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Agrivet Laboratories offers a diverse range of cutting-edge **Molecular Biology Analysis** spanning **Genomics** and **Metagenomics** as well as their application in **Molecular *In Vitro* Diagnosis** of various pathogens of Poultry.

Agrivet Laboratories is also actively involved in **Metabolomics** and **Transcriptomic** analysis of various gene regulations and pathways which are affected due to differential feeding, infection, and pharmaceutical products (probiotics).



Genomic DNA isolation from plant, animal, microbes, soil and blood to amplicon upto 2kb

Gene expression compiled report including RNA isolation, QC, cDNA preparation and gene expression analysis using SYBR™ Green and TaqMan™ qRT-PCR

GMO testing by using CMV35S/ CRY/ NOS sequence on RT-PCR as required

Microbiome metagenomics study from poultry gut/ faeces using 16s rRNA gene sequencing-V3-V4

Microbiome metagenomics study from poultry gut/ faeces using whole genome shotgun metagenomics study

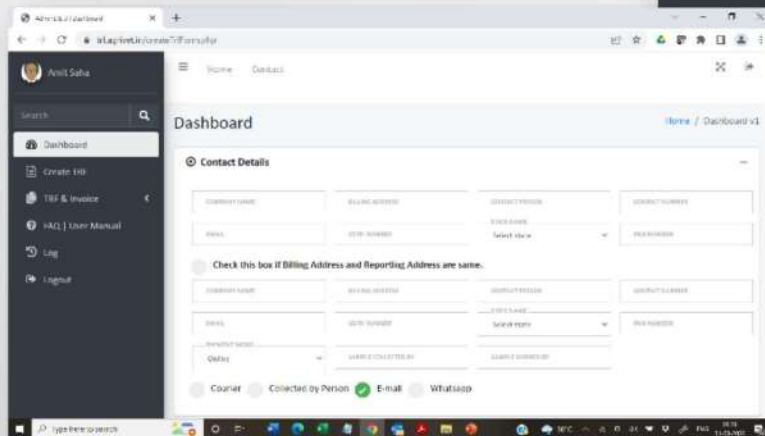
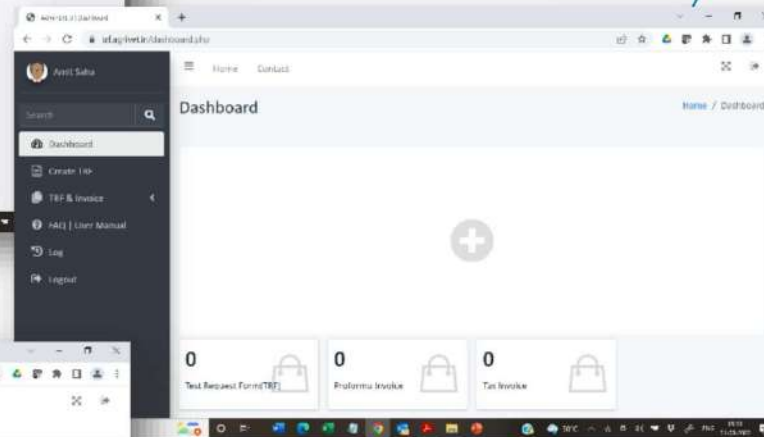
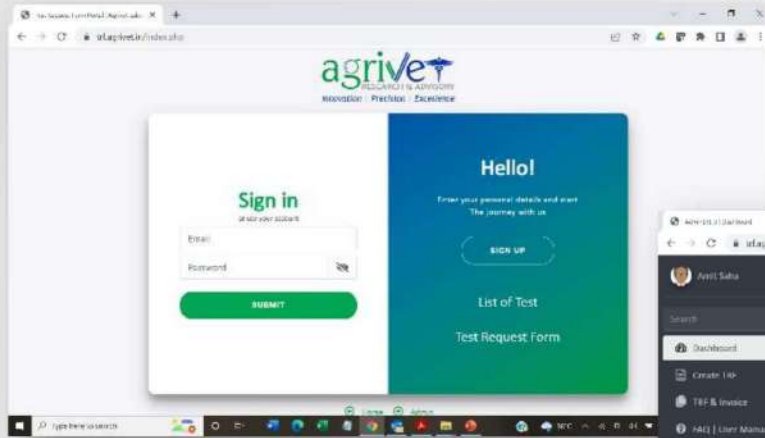
Bacterial molecular identification using 16S primer

Fungi molecular identification using ITS primer or 28S primer



Exclusive Customer Portal

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Self Service in making Test Request through online TRF Generator

Transparent pricing and real-time online budget estimation

Immediate confirmation on sample acceptance at the laboratory level

Online report access with historical report archive facility

Instant Live Chat facility with Laboratory coordinators

Online payment option using Credit Card / Debit Card

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THANK YOU

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