C L I N I C A L Pathology

VIROLOGY BIOCHEM-ISTRY PCRTESTING FARM ANI-MAL HEALTH SCHEMES R A BUIES TESTING FOOD SAFE TZS TING A GOT E RIOLOGY PARASI-

TOLOGY CONTRACT Research... biobest Veterinary Diagnostic Laboratory

2021 Price List

ທ	Biobest - Avoiding De	elays	
ž	Biobest Team	,	4
Ň	Biobest Services		e
Conte	Companion Animal To	ests Cats Dogs StemCells Horses Birds	
	Lyme Disease PCR		13
	Farm Animal Tests		16
		Pigs	
		Sheep	
		HiHealthFlockcare	
		Cattle	18
		HiHealthHerdcare	
	Sampling Guidelines		22

Sampling Guidelines	
Standard Testing Days	23
Terms & Conditions	26
Contact Us	28

est Biobe ut Ō **A**

Welcome to the 2021 Biobest price list. Biobest was founded by Dr David Snodgrass in 1995 when he identified a gap in the market for a private veterinary virology laboratory. Initially Biobest operated as a specialist referral laboratory, only accepting samples via other veterinary laboratories. David soon realised that there was also a need in the market for a GLP accredited virology lab to assist pharma companies with study work and so systems were quickly introduced to allow Biobest to gain GLP accreditation, our first quality standard. Quality has remained the fundamental to Biobest's success and, over the years, we have added ISO:17025 and GMP accreditation and are also the largest VMD authorised equine stem cell centre in the UK.

In 2000 David took the bold step of setting up a second laboratory for Biobest, a high containment facility which enabled us to perform rabies testing for the newly created pet travel scheme. This was a truly transformational event in the history of Biobest as the high demand for this test over the years has allowed the business to grow and prosper, eventually becoming a 'one stop shop' for all veterinary laboratory requirements.

Biobest was purchased by the Origin group in 2014 which was subsequently purchased by Vet Partners in 2018. Biobest are now part of one of the largest veterinary groups in the UK.



In order to ensure that your samples are tested efficiently you should, where possible, aim to have them delivered to us the day before tests are set up. We will always aim to provide a quick turnaround time for all samples but if you have a specific urgent case please contact us directly to discuss your requirements.

There are a few simple steps you can take when submitting samples to ensure that they are tested as quickly as possible and allow us to provide you with the best possible customer service:

Delay

Avoiding

F0 L

List

Check

- Ensure that submission forms are completed in full.
- Ensure you clearly indicated what testing is required for every sample submitted.
- For farm animal samples remember to include the animal ID(s) and the farmer's name on ٠ the submission form. We can supply sample labels and pre-populated submission forms for cattle health scheme members who have granted us CTS access.
- Where relevant, include a concise clinical history to assist our vets when writing reports.
- For tissue, swab, cytology smears and fluid, please include details of the sampling site. •
- It is important that you send the correct sample type and sufficient volume for your chosen • test(s). Details of sample type and volume can be found on pages 22-23.
- Please ensure that the lids of all sample tubes and pots are firmly closed. ٠
- Do not send faecal samples in plastic bags or gloves, instead use rigid plastic pots. ٠
- When sending large volumes of samples try to ensure tubes are in numerical order.

am 6 Õ 0 m

The Biobest team have strong and varied academic and technical experience, as well as enthusiasm for delivering the best for our customers. We offer our unique blend of expertise in virology and genetics with commercial dynamism and excellent customer service.



Paul Burr BSc(VetSci)Hons BVM&S PhD MRCVS - Laboratory Director

Paul has 5 years experience of farm practice, followed by over 10 years of diagnosis and research in infectious diseases. Advising both vets and farmers on infectious disease problems and health scheme operation remains an important and enjoyable part of his role at Biobest. Paul has regularly presented papers at British Cattle Veterinary Association meetings and often does talks to vets and farmer meetings on infectious disease.



Stuart Marshall BSc (Hons) MBA - Chief Operations Officer

Stuart graduated from the University of Edinburgh with an honours degree in Virology in 1998. He joined Biobest in 1999 following a 12-month placement with the IBR research team at the Moredun Research Institute. Stuart also has an MBA from the University of Warwick where his thesis was on the use of lean manufacturing techniques within the laboratory environment. In his role as Chief Operations Officer of the Biobest lab group Stuart has day-to-day management responsibility for all the Biobest lab sites.



Susan Duthie BVMS PhD CertVR MRCVS - Veterinary Manager

Susan graduated from the University of Glasgow Vet School and went straight into mixed practice. Five years later, she returned to Glasgow to complete a PhD encompassing veterinary virology. After completing a related post-doctoral study, she joined Biobest in 2003. Susan has daily involvement with the HiHealth Herdcare Cattle Health Scheme, providing reports and advice for members, and is a member of the CHeCS Technical committee.



Jennifer Bunyan BSc (Hons) Cert Mgmt (Open) - Laboratory Manager

After graduating with an honours degree in Neuroscience from the University of Edinburgh, Jennifer started with Biobest in 2001. Since then Jennifer has progressed within the company to Laboratory Manager overseeing a team of 22 scientists and technicians. In 2010 she also obtained an Open University professional certificate in management winning the Derek Pugh award for best student. At Biobest she takes responsibility for all aspects of laboratory management to ensure we provide our customers with the highest possible standards of testing in an efficient and timely fashion.



Kieran McDonald BSc (Hons) MSc - Technical Manager

Since joining Biobest with a degree in microbiology, Kieran has worked in a range of roles before devoting the majority of his time to test development, as well as cell and tissue culture. Since gaining his masters degree, he has spent 15 years growing stem cells which have been used in the treatment of over 2500 competitive sports horses and companion animals.



Maggie Carson BSc - Farm Animal Manager

Maggie joined Biobest in 2014 as the bovine administrator for the HiHealth Herdcare team, promoted to Deputy Farm Animal Manager in 2016 and subsequently to Farm Animal Manager in 2019. A University of Edinburgh chemistry graduate, she spent a few summers working and travelling in America before taking on her role here at Biobest. Maggie is responsible for the dayto-day management of the bovine testing; writing reports and preparing accreditation and sales certificates. She also plays an active role in advising new and current members.

Rebecca Mearns, MA VetMB CertSHP MRCVS - Veterinary Advisor



Rebecca joined Biobest as Senior Veterinary Advisor in January 2015 to offer advice and expertise across the board on ruminants (cattle, sheep and goats). Before starting her role at Biobest, Rebecca was a Veterinary Investigation Officer at Penrith Veterinary Investigation Centre and prior to that worked in a similar role at SAC Edinburgh, having started out in general veterinary practice. She is an RCVS Advanced Practitioner in Sheep Health and Production and current Junior Vice President of the Sheep Veterinary Society.

Kate Haig BVMS, MRCVS - Veterinary Advisor



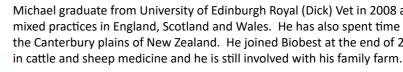
Kate graduated from the University of Glasgow veterinary school in 1980. Her experience within the veterinary industry includes research, general practice and the State Veterinary Service. She has also worked as a freelance copy-editor and proofreader specialising in scientific, medical and veterinary textbooks. Kate joined Biobest in 2005 and provides veterinary support to Biobest customers, including current and prospective members of HiHealth Herdcare.

Sanne Dolieslager, DVM PhD MRCVS - ClinPath Advisor



Sanne joined Biobest Laboratories as a Veterinary Advisor in December 2014 and her main role is to work as part of the clinical pathology team. After graduating from Utrecht University, the Netherlands, in 2008 she continued her studies at the University of Glasgow and gained a PhD in veterinary microbiology and immunology. Prior to joining Biobest she worked in small animal veterinary practice and has taught undergraduates at the Royal (Dick) School of Veterinary Studies in Edinburgh.

Michael Johnson BVMS, MRCVS - Veterinary Advisor



Zoi Stefanopoulou DVM BSc MSc, MRCVS - Veterinary Advisor

Zoi joined the Biobest veterinary team at the start of 2020. She first gained her veterinary degree from the University of Thessaly in her native Greece, before coming to the UK to complete a degree in biomedical science. She brings to Biobest a diverse range professional experience that spans small animal practice, meat inspection work and laboratory work. At Biobest Zoi is responsible for writing and providing epidemiological advice to vets and farmers.





Michael graduate from University of Edinburgh Royal (Dick) Vet in 2008 and has worked in farm and mixed practices in England, Scotland and Wales. He has also spent time in outback Australia and the Canterbury plains of New Zealand. He joined Biobest at the end of 2019. His main interests lie

biobest

Supplying specialist contract research and laboratory support services in infectious diseases, clinical pathology and cell culture.

Working with the major pharmaceutical companies and contract research organisations to complete both regulatory and nonregulatory research studies.

Additional activities include disinfectant testing and virological reagent sales. We are compliant with Good Laboratory Practice as inspected by the UK Department of Health's GLP Monitoring Authority.

We hold a GMP Test Site (Biologicals) certificate from the MHRA. This means that we are authorised to perform biological QC testing in accordance with Article 111(1) of directive 2001/83/EC.

biobest diagnostics

Providing testing services for a wide range of species including cattle, sheep, goats, dogs, cats, horses, pigs, birds, poultry and fish, with a particular emphasis on virology, DNA testing and serology. As a specialist laboratory we have the skills to develop and use the best available assay technology.

Biobest gives you:

 The best available diagnostic test

- Expert interpretation on all
- test results Fast and efficient service
- The best prices

flockcare

flexible membership plan helping you to get the most out of lab diagnostics for your flock and flocks under your care. Members receive expert advice and discounted testing in the following areas to improve flock health and productivity:

- Parasitology
- Clinical chemistry including trace elements

Infectious disease testing

Testing can be used to monitor flock status and to investigate common problems such as barren ewes, thin ewes, ill thrift in lambs and worm and fluke control.

The team at Biobest work with farmers and their own vet to provide guidance and advice.



A leading CHeCS accredited cattle health scheme provider. HiHealth Herdcare is a partnership with you (the farmer), your practice vet and Biobest's veterinary and scientific team. Together we can work within the guidelines of CHeCS to:

 Eliminate BVD, Johne's, IBR, Lepto and Neospora from your herd and obtain accredited disease-free status Improve biosecurity on your farm and prevent reintroduction of the five diseases into your herd Help you identify accredited disease-free sources of breeding cattle

biobest clinpath

Providing a comprehensive service for all species covering haematology, biochemistry, histopathology, cytology, parasitology and bacteriology.

Biobest ClinPath is an independent, client-orientated quality service providing:

- Analytical accuracy, speed and reliability
- Access to a veterinarian to discuss cases
- Result interpretation
- Provision of information rich, jargon free reports
- Flexibility to suit individual practice needs
- Value for money



Royal Mail should accept all samples for routine diagnostic testing. Royal Mail do not accept Category A infectious material, but this should not affect routine veterinary samples. General elin guidance is that samples (blood, tissue, excreta, secreta etc.) from humans or animal are considered to be Category B infectious substances. These samples are then assigned to UN3373 and must be packaged according to IATA PI:650 for transport. There is an added complication that for Category B ð samples each individual package must hold a total of less than 50ml of liquid or 50g of tissue.

Samples which are taken for routine screening from healthy animals are exempt from UN3373. Specimens for which there is minimal likelihood that pathogens are present are not subject to the regulations (meaning volumes over 50ml/50g can be sent) if the sample is sent in a manner which will prevent any leakage and which is marked with the words "Exempt human specimen" or "Exempt animal specimen" as appropriate.

What to avoid when sending samples

- Using excessive sellotape on outer packaging
- Sending haemolysed blood

6

ailing

- Using gloves or any other non-leak proof containers
- Writing multiple sample numbers on a single sample container
- Placing samples in non-sequential order in boxes containing multiple samples
- Using a container if sample content has seeped onto its exterior

biobest

7

Biochemistry profiles	Turnaround	Price (£)	Code
Small animal full profile (serum, fluoride, EDTA and freshly made blood smears) Routine haematology, albumin, ALT, AP, bilirubin, calcium, chloride, cholesterol, creatinine, globulin, glucose, phosphate, potassium, sodium, total protein, urea	Same to next day	51.00	PROF 00
Small animal full profile, biochemistry only (serum, fluoride)	Same to next day	44.00	PROF 03
Small animal kidney profile (serum, EDTA and blood smear) Routine haematology, albumin, calcium, chloride, creatinine, globulin, phosphate, potassium, protein (total) and urea	Same to next day	34.00	PROF 02
Small animal liver profile (serum) Protein (total), albumin, globulin, ALT, AP, GGT, bilirubin, cholesterol	Same to next day	27.00	PROF 02
Bile acids stimulation panel (serum x2) Pre-prandial and post-prandial	Up to 2 days	20.00	BILE_ STIM
Canine or feline short malabsorption panel (serum) Folate and cobalamin	Up to 6 days	43.00	PROF 03
Electrolyte panel (serum) Chloride, potassium, sodium, Na:K ratio	Same to next day	16.00	PROF 05
Short FIP profile (serum) FCoV serology, AGP and albumin/globulin	Up to 3 days	42.00	FIP_PAC
Full FIP profile (wet) (serum) FCoV serology, AGP, albumin/globulin and cytology	1 day for fluid, 3 days completed	53.00	PROF 04
Full FIP profile (dry) (serum and EDTA) FCoV serology, AGP, albumin/globulin and haematology	1 day for fluid, 3 days completed	53.00	PROF 04

Routine biochemistry	Turnaround	Price (£)
Serum sample required Albumin, ALT, AP, AST, bilirubin, BHB, chloride, cholesterol, CK, creatinine, GGT, GLDH, glo NEFA, phosphate, potassium, protein, sodium, total calcium, urea	obulin, glucose, magnesium,	
1-4 tests	Same to next day	8.15
5-9 tests	Same to next day	5.15
10 or more tests (or in addition to any profile)	Same to next day	4.15

Haematology	Turnaround	Price (£)	Code
Routine haematology (EDTA and freshly made blood smears)	Same to next day	27.50	PROF 001
Routine haematology including smear exam by a pathologist (EDTA and freshly made blood smears)	Same to next day	46.00	PROF 002
Blood smear report (EDTA and freshly made blood smears)	Same to next day	20.00	SMEAR_RPT
Smear examination for haematological parasites (EDTA and freshly made blood smears)	Same to next day	20.00	SMEAR_ HAEM
Reticulocyte count (EDTA)	Same to next day	15.00	RETIC_CNT
Manual platelet count (EDTA)	Same to next day	18.00	PLATE_MAN
Coomb's test (EDTA)	Up to 2 days	32.00	COOMBS
Fibrinogen (citrate)	Up to 2 days	11.00	FIBRINOGEN
D-dimer (citrate)	Up to 2 days	25.00	D_DIMER
Coagulation profile (citrate) PT, APTT, fibrinogen	Up to 2 days	42.00	PROF 004

Special biochemistry	Turnaround	Price (£)	Code
Calcium, ionized	Same to next day	15.00	CALC_ION
Canine prostate specific arginine esterase (CPSE/BPH) (serum)	Up to 5 days	57.00	CPSE
C-Reactive protein (CRP) (serum)	Up to 2 days	16.50	CRP
Digoxin (serum, no gel tube)	Up to 3 days	43.00	DIGOXIN
Fructosamine (serum)	Up to 2 days	20.00	FRUCTOS
Phenobarbitone (serum, no gel tube)	Up to 2 days	26.00	PHENOBARB
PLI (canine or feline) (serum)	Up to 4 days	66.00	PLI
Amylase (serum)	Up to 2 days	8.50	AMYLASE
Bile acids (serum)	Up to 2 days	12.50	BILE_ACIDS
Lead (serum)	Up to 4 days	26.00	LEAD_SA
Lipase (serum)	Up to 2 days	8.50	LIPASE
Zinc (serum)	Up to 4 days	12.50	ZINC
Potassium bromide (serum, no gel tube)	Up to 2 days	40.00	POTAS_BROM
Serum protein electrophoresis (SPE) (serum)	Up to 4 days	28.00	ELECTRO
TLI (canine) (serum)	Up to 6 days	45.00	TLI_CANINE
TLI (feline) (serum)	Up to 6 days	60.00	TLI_FELINE
Symmeric Dimethylarginine (SDMA) (serum)	Up to 2 days	34.00	SDMA

Faecal Tests	Turnaround	Price (£)	Code
Occult Blood (1g faeces)	Up to 2 days	23.00	OCCULT
Giardia (1g faeces)	Same to next day	21.00	GIARDIA
Salmonella (1g faeces)	Up to 5 days	21.00	SALMONELLA
Campylobacter (1g faeces)	Up to 5 days	21.00	CAMPYL
Worm egg count & coccidia (3g faeces)	Same to next day	15.00	WEC_SA
Faecal Bacterial culture & sensitivity (includes Salmonella, Campylobacter, aerobic) (1g faeces)	Up to 6 days	38.00	BACT_FAEC
Small animal faecal analysis profile (3g faeces) Routine bacteriology, worm eggs, Coccidia, Giardia	Up to 6 days	75.00	PROF 024

Urine

Urinalysis (5ml urine) USG, dipstick and deposit exam
Full urinalysis (5ml plain urine and 1ml boric acid) USG, dipstick, deposit exam and bacterial culture & sensitivity
Urine cytology (5ml urine)
Urine protein : creatinine ratio (1ml urine)
Urine cortisol : creatinine ratio (1ml urine)
Urine qualitative calculi analysis

Turnaround	Price (£)	Code
Same to next day	18.50	PROF 020
Up to 6 days	45.00	PROF 055
Same to next day	37.00	UR_CYT
Same to next day	22.00	UR_PRO_CRT
Same to next day	40.00	UR_COR _CRT
Variable	35.00	CALCULI

Microbiology	Turnaround	Price (£)	Code
Routine bacterial culture & sensitivity (swab/tissue)	Up to 6 days	35.00	BACTERIAL
Bacterial culture, sensitivity + anaerobes (swab/tissue) (contact us to discuss sampling methods)	Up to 6 days	40.00	BACT_ANAER
Faecal bacterial culture & sensitivity (1g faeces) Includes aerobic plates, Salmonella and Campylobacter	Up to 6 days	38.00	BACT_FAEC
Fungal culture (swab)	7 days	35.00	FUNGAL
Dermatophyte culture (hair pluck)	14 days	26.50	DERMATO
		-	ALL THE ALL

	100		
Histopathology & cytology	Turnaround	Price (£)	Code
Histopathology single site (tissues in formalin)	5 days	47.00	HE_STN
Histopathology additional site (tissues in formalin)	5 days	15.00	HE_STN _ADD
Digit/tail/tooth/ear canal histopathology (tissues in formalin)	14 days	85.00	
Large biopsy with margin check (>10cm) (tissues in formalin)	Up to 14 days	135.00	
Gram stain (air dried smears)	Same to next day	17.50	GRAM_STAIN
ZN stain (air dried smears)	Same to next day	17.50	ZN_STAIN
Cytology single site (up to 4 smears from the same location)	Same to next day	40.00	CYT_SMEAR
Cytology additional site	Same to next day	25.00	CYT_ADD
Full fluid analysis: (fluid in EDTA & plain tubes, air dried smears) Cytology, total protein, total cell count	Same to next day	50.00	PROF 013
Bone Marrow Cytology (bone marrow aspirate smears)	Same to next day	75.00	PROF_48

Endocrine	Turnaround	Price (£)	Code
Cortisol (serum)	Up to 2 days	32.00	CORT_PRE
ACTH stimulation test (serum x2) Cortisol: pre and 1 hour post ACTH	Up to 2 days	33.00	ACTH_STIM
Low Dose Dexamethasone suppression test (serum x3) Cortisol: pre, 3 and 8 hr post dexamethason	Up to 2 days	44.00	LDDST
Total T4 (serum)	Up to 2 days	21.00	T4_TOTAL
Free T4 (serum)	Up to 6 days	39.00	FREE_T4
TSH (serum)	Up to 2 days	36.00	TSH
Total T4/TSH (serum)	Up to 2 days	54.00	T4_TSH
Anti-Mullerian Hormone (serum)	Up to 7 days	87.00	AMH_CN
Progesterone (serum)	Up to 4 days	32.00	PROGESTER

Skin

Skin scrape for ectoparasites (scrape and hair pluck) Direct microscopy for bacteria and fungi (hair pluck, smear, skin scr

strip)

Skin analysis panel (smear, hair pluck, swabs) Direct microscopy, bacteriology, dermatophyte culture

Feline Diagnostics

Rabies serology Minimum 2mL blood, 1mL serum. Includes certificate and titre in Computer rabies certificate (requested prior to testing) Rabies certificate re-issue Rabies express Feline coronavirus IFA Short FIP profile: FCoV serology, AGP and albumin/globulin Full FIP profile (wet): FCoV serology, AGP, albumin/globulin and cytology Full FIP profile (dry): FCoV serology, AGP, albumin/globulin and haematology Feline immunodeficiency virus IFA (serum or clotted blood) Toxoplasma gondii IgG and IgM IFA (serum or clotted blood) Neospora IFA (serum or clotted blood) Panleukopaenia virus IIFT (serum or clotted blood) Calicivirus VNT (serum or clotted blood) Herpesvirus VNT (serum or clotted blood) Feline TB interferon gamma test (2ml Heparinised blood) Pathogen detection FeLV antigen (air-dried smear or EDTA blood) Respiratory virus isolation (FHV/Calicivirus or Pox from swab in transport medium) Triple respiratory profile - respiratory VI + FHV & Chlamydia PCR (2 transport medium) Herpesvirus PCR (ocular or nasal swab) Chlamydia PCR (ocular or nasal swab) Chlamydia & herpesvirus PCR (ocular or nasal swab) Panleukopenia PCR (faeces or tissue)

	Turnaround	Price (£)	Code
	Same to next day	20.00	SKIN_SCRAP
crape, tape	Same to next day	20.00	MICRO_EXAM
	14 days	50.00	PROF_045

	Turnaround	Price (£)	Code
IU/ml	Up to 7 days	62.00	RABIES
	Same to next day	10.00	
	Same or next day	25.00	RAB_CERT
	Up to 3 days	515.00	RABEX
	Same or next day	25.00	FCOS
	Up to 3 days	42.00	FIP_PACK
	1 day for fluid, 3 days completed	53.00	PROF 043
	1 day for blood, 3 days completed	53.00	PROF 044
	Same or next day	33.50	FIVS
	Up to 2 days	37.50	F_TOXO_GM
	Up to 4 days	37.50	F_NEOS
	Up to 7 days	35.00	FPS
	Up to 7 days	50.00	FCAV
	Up to 7 days	50.00	FHVS
	Call for advice	225.00	FTBIG
	Up to 7 days	32.50	FELV
	Up to 7 days	24.00	F_VIRUS_IS
(2 swabs in	Up to 7 days	58.00	F_RESP
	Up to 7 days	31.00	PCRFH
	Up to 7 days	31.00	PCRFC
	Up to 7 days	47.50	PCR_FH_FC
	Up to 7 days	47.50	FPV_PCR



	-		
Dogs	Turnaround	Price (£)	Code
Rabies serology Min. 2mL blood, 1mL serum. Incl certificate & titre in IU/ml	Up to 7 days	62.00	RABIES
Computer rabies certificate (requested prior to testing)	Same to next day	10.00	
Rabies certificate re-issue	Same or next day	25.00	RAB_CERT
Rabies express	Up to 3 days	515.00	RABEX
Pre-booster immunity check (serum or clotted blood) Titres to Distemper Virus, Adenovirus and Parvovirus	Up to 7 days	55.00	C_PRE_VACC
Canine TB interferon gamma test (2ml heparinised blood)	Call for advice	225.00	FTBIG
Distemper virus VNT (serum or clotted blood)	Up to 7 days	23.00	CDS
Adenovirus VNT (serum or clotted blood)	Up to 7 days	23.00	CAS
Parvovirus HAI (serum or clotted blood)	Up to 7 days	23.00	CPS
Toxoplasma gondii IgG & IgM IFA (serum or clotted blood)	Up to 2 days	37.50	CTOXG
Neospora caninum IFA (serum or clotted blood)	Up to 4 days	37.50	CNEOS
Parainfluenza VNT (serum or clotted blood)	Up to 10 days	65.00	CPIF
Herpesvirus VNT (serum or clotted blood)	Up to 7 days	65.00	CHVS
Leptospirosis IFA (detects antibodies to all pathogenic serovars but not vaccination)	Up to 7 days	65.00	CLEPTO
CPSE - prostate hyperplasia (detects canine prostate specific arginine esterase)	Up to 7 days	57.00	CPSE
Virus Isolation (adenovirus/ herpesvirus/ parainfluenza)	Up to 14 days	24.00	C_VIRUS_IS
Parvovirus PCR (faeces or tissue)	Up to 7 days	45.50	CPV_PCR
Distemper PCR (CSF, EDTA blood, urine or swab)	Up to 7 days	55.00	CDPCR
Leptospirosis PCR (urine, EDTA blood or tissue)	Up to 7 days	55.00	CLEOPTO_PO



Ŋ	Horses
n	Equine viral arteritis screen (positive/negative)
	Equine virus arteritis titration (following positive screen)
	Equine virus arteritis titration (e.g, of ELISA positive samples)
	Equine infectious anaemia serology (Coggins test)
	Combined viral arteritis & infectious anaemia serology test
	Rotavirus diagnostics (please phone for advice)

Stem cell	Price (£)	Code	
Equine bone marrow aspiration kit (including transport box)	120.00		
Canine adipose tissue kit (including transport box)	50.00		
Transport box only	25.00		
Equine stem cell culture (up to 40 million cells from bone marrow aspirate)	1045.00	STEM_CELLS	
Canine stem cell culture (20 million cells from adipose tissue, includes cryopreservation of c	cells) 600.00	STEM_CN	
Canine stromal vascular fraction (SVF) 48 hour service (includes cryopreservation of cells)	390.00		
Cryopreservation of equine stem cells (up to 5 yrs)	200.00		
Resuscitation of cryopreserved cells (10 million)	200.00		
Turnaround times will vary based on your requirements, please call to discuss			

Turnaround times will vary based on your requirements, please call to discuss



Stem

Birds Avian chlamydia PCR (faeces, cloacal swab or tissue) Psittacine beak and feather disease PCR (feather, heparinised bloo Polyomavirus PCR (feather, heparinised blood, faeces, cloacal swak Avian sexing PCR (egg membranes, mouth swabs, feather, heparin tissue) Pigeon circovirus PCR (faeces or tissue) *Price based on 5 sample minimum

Before sending avian samples please consult Avian sampling guidelines available on the Biobest website

0 Ticks () Lyme Disease PCR (frozen dead tick) Disea

0 Ĕ

()

Bird

Turnaround	Price (£)	Code
Up to 5 days	18.00	EVAS
Up to 5 days after positive screen	17.00	TL-EQ_VNT
Up to 5 days	30.00	EVA_TITRA
Up to 2 days	18.00	EIA
Up to 5 days	36.00	EQU_2TEST
On demand		

	Turnaround	Price (£)	Code
	Up to 4 days	34.00	PCRAC
od, tissue)	Up to 4 days	34.00	PCRPBFD
ab or tissue)	Up to 4 days	40.00	PCRAP
nised blood,	Up to 6 days	34.00	PCRAS
		34.00	PCRCIRCO

Turnaround	Price (£) Code
Up to 5 days	41.00

Biochemistry profiles & haematology	Turnaround	Price (£)	Code	
Large animal full profile (serum, fluoride, EDTA and freshly made blood smears) Routine haematology, albumin, AST, bilirubin, calcium, CK, creatinine, GGT, GLDH, globulin, glucose, magnesium, phosphate, total protein, urea	Same to next day	46.00	PROF 012	
Large animal full profile, biochemistry only (serum, fluoride)	Same to next day	36.00	PROF 036	
Large animal liver profile (serum) Albumin, AST, bilirubin, GGT, GLDH, globulin, total protein	Same to next day	27.50	PROF 025	
Ruminant metabolic profile (serum and fluoride) Albumin, BHB, calcium, globulin, glucose, magnesium, NEFA, phosphate, total protein, urea	Same to next day	28.50 25.00 (5+)	PROF 009 PROF 037	
Downer cow profile (serum) AST, calcium, CK, magnesium, phosphate, urea	Same to next day	25.00	PROF 054	
Bovine trace element profile (serum and heparin) Copper, selenium (GSH-Px)	Up to 5 days	16.50 12.00 (5+)	PROF 008 PROF 039	
Ovine trace element profile (serum and heparin) Copper, selenium (GSH-Px), Vitamin B12	Up to 5 days	22.50 19.00 (5+)	PROF 049 PROF 050	
Periparturient recumbent ewe profile (serum) BHB, calcium, magnesium	Same to next day	13.00	PROF 047	
Pre lambing profile (serum) Albumin, BHB, urea	Same to next day	13.50 6.50 (5+)	PROF 046 PROF 052	
Camelid profile (serum, fluoride, EDTA and freshly made blood smears) Large animal full profile plus smear exam for parasites	Same to next day	55.00	PROF 057	
Routine haematology (EDTA and freshly made blood smears)	Same to next day	27.50	PROF 001	
Haemoglobin or PCV (EDTA)	Same to next day	14.00	НВ/НСТ	
the second se		Y	1. 1.	
Benefic Distance of the				(0)

Routine biochemistry	Turnaround	Price (£)

Serum sample required

Albumin, ALT, AP, AST, BHB, bilirubin, chloride, cholesterol, CK, creatinine, GGT, GLDH, globulin, glucose, magnesium, NEFA, phosphate, potassium, protein, sodium, total calcium, urea

1-4 tests	Same to next day	8.15
5-9 tests	Same to next day	5.15
10 or more tests (or in addition to any profile)	Same to next day	4.15

			and the second second
Histopathology & cytology	Turnaround	Price (£)	Code
Histopathology up to 3 tissues	Up to 7 days	65.00	HE_LA
Histopathology additional tissue	Up to 7 days	10.00	HE_LA_ADD
Histopathology on post-mortem tissue up to 3 tissues	Up to 7 days	65.00	HE_PM
Cytology single site (up to 4 slides from one site)	Same to next day	40.00	CYT_SMEAR
Cytology additional site	Same to next day	25.00	CYT_ADD
Large animal vasectomy check	Up to 7 days	53.00	VASECTOMY

Special biochemistry Copper (serum)

Copper (5g fresh tissue)
Fibrinogen (citrate blood)
Haptoglobin (serum)
Iodine - pooled up to 6 samples (serum, heparin)
Iron (total iron binding capacity, % saturation) (serum)
Lead (heparin) Bovine & Ovine only
Lead (5g fresh tissue)
Manganese (heparin)
Pepsinogen (serum)
Selenium (GSH-Px) (heparin)
Selenium (5g fresh tissue)
Selenium (serum)
Thyroxin (T4) (serum)
Vitamin A (serum)
Vitamin B12 (serum)
Vitamin B12 (5g fresh tissue)
Vitamin E (serum)
Vitamin A & E (5g fresh tissue)
Zinc (sodium heparin or serum)
Zinc sulphate turbidity test (serum)

Microbiology

Routine bacterial culture & sensitivity (swab, tissue, milk)

Milk bacterial culture only

Bacterial culture and sensitivity (including Salmonella) E. coli K99 (1g faeces) Yersinia culture (1g faeces)

Clostridial toxins (5 ml small intestinal contents in sterile universal)

Turnaround	Price (£)	Code
Same to next day	8.15 6.15 (5+)	COPPER COPPER_4
Up to 7 days	40.00	COPPER_LVR
Up to 2 days	11.00	FIBRINOGEN
Up to 7 days	15.00	HAPTO GLOBIN
Up to 1 month	26.00	PII
Up to 7 days	27.00	IRON_BIND
Up to 5 days	22.00	LEAD
Up to 7 days	40.00	LEAD_LVR
Up to 4 days	25.00	MN
Up to 7 days	13.50	PEPSINOGEN
Up to 5 days	8.15 6.15 (5+)	GSH_PX GSH_PX_4
Up to 7 days	40.00	SELEN_LVR
Up to 7 days	15.00	SELEN_SER
Up to 4 days	12.00	T4_BOVINE
Up to 7 days	23.00	VIT_A
Up to 4 days	12.00 10.00 (5+)	VIT_B12 VIT_B12_4
Up to 7 days	40.00	COBALT_LVR
Up to 21 days	23.00	VIT_E
Up to 7 days	55.00	VIT_E_LVR
Up to 4 days	12.50 7.50 (5+)	ZINC
Up to 6 days	10.50 5.50 (5+)	ZST ZST_4

Turnaround	Price (£)	Code
Up to 7 days	35.00 24.00 (5+)	BACTERIAL
Up to 7 days	18.00 14.00 (5+)	BACT_MILK BACT_CULT
Up to 6 days	38.00	BACT_FAEC
Up to 5 days	25.00	к99
7 days (Up to 28 days for negative)	25.00	YERSINIA
Up to 8 days	35.00	CLOSTRID

Faecal Tests	Turnaround	Price (£)	Code
Worm egg count & Coccidia (3g faeces)	Same to next day	15.00 12.50 (5+)	WORM_EGG WORM_4PL
Fluke detection (10g faeces)	Same to next day	19.00	FLUKE_EGG
Coccidia count (3g faeces)	Same to next day	11.00	WORM_COO
Worm egg count, no Coccidia (3g faeces)	Same to next day	11.00	WORM_ONI
Pooling charge for up to 10 samples	n/a	15.00	CHRG_WOR
Worm egg count & Coccidia (add on to young ruminant profile)	Same to next day	11.00	WORM_ADD
Coccidial speciation - ovine (3g faeces)	Up to 7 days	45.00	COCCI_SPEC
Camelid parasitology (10g faeces)	Up to 10 days	30.00	WORM_CAM
Haemonchus stain (3g faeces)	Up to 7 days	45.00	HCHUS_DIF
Lungworm larvae (10g faeces)	Up to 3 days	19.50	LUNG_LARV
Faecal Giardia (immunological) (1g faeces)	Same to next day	21.00	GIARDIA
Cryptosporidium (1g faeces)	Same to next day	22.00	CRYPTO
Salmonella (1g faeces)	Up to 5 days	21.00	SALMONELI
Rotavirus PAGE (1g faeces)	Up to 6 days	30.00	
Coronavirus (1g faeces)	Up to 6 days	20.00	B_CVV
Rotavirus ELISA (1g faeces)	Up to 7 days	20.00	RVV
Neonatal cattle enteritis profile (<5 days old) (5g faeces) Bacteriology including Salmonella, Rotavirus, Coronavirus, Cryptosporidium, E.coli K99	Up to 7 days	46.50	PROF 030
Neonatal small ruminant enteritis profile (<5 days old) (5g faeces) Bacteriology including Salmonella, Rotavirus, Cryptosporidium	Up to 7 days	54.00	
Young cattle enteritis profile (6-21 days old) (5g faeces) Salmonella, Rotavirus, Coronavirus, Cryptosporidium	Up to 7 days	43.50	PROF 029
Young small ruminant enteritis profile (6-21 days old) (5g faeces) Salmonella, Rotavirus, Coronavirus, Cryptosporidium	Up to 7 days	50.00	
Growing cattle enteritis profile (>22 days old) (5g faeces) Salmonella, worm egg count, coccidia count	Up to 7 days	29.50	PROF 053
Adult ruminant scour profile (>20g faeces)	Up to 7 days	52.00	PROF 056

Endocrine	Turnaround	Price (£)	Code
T4 Bovine (serum)	Up to 4 days	12.00 11.00 (5+)	T4_BOVINE
Progesterone (serum)	Up to 4 days	32.00	PROGESTER

	Serology & Faec	Turnaround	Price (£)	Code
IJ	Mycoplasma hyopneumoniae ELISA	Up to 7 days	10.50	M_HYO
	PRRS ELISA (serum)	Up to 7 days	10.50	PRRS
	Swine influenza ELISA	On demand	10.50	SWINE_FLU
	PRRS PCR (individual/pooled)	On demand	38.00	PRRSV_PCR

Parasitology	Turnaround	Price (£)	Code
Worm Egg/Coccidian Oocyst Count	Same to next day	15.00	WORM_EGG
Worm Egg/Coccidian Oocyst Count (additional)	Same to next day	11.00	WORM_ADD

0	Sheep
0	MV/CAE
Ē	CLA ELISA
S	EAE ELISA
	Toxo ELISA
	Johne's disease ELISA
	Sheep Scab ELISA
	Liver fluke antibody
	EAE ELISA Toxo ELISA Johne's disease ELISA Sheep Scab ELISA Liver fluke antibody Border disease ELISA Teladorsagia circumcinta IgA ELISA (serum) Antigen Detection Fluke coproantigen ELISA Pool of up to 10 samples Border disease PCR Pool of up to 10 samples Johne's PCR Pool of up to 5 samples ORF PCR
Toxo ELISA Johne's disease ELISA Sheep Scab ELISA Liver fluke antibody Border disease ELISA Teladorsagia circumcinta IgA ELISA (serum) Antigen Detection Fluke coproantigen ELISA Pool of up to 10 samples Border disease PCR Pool of up to 10 samples Johne's PCR Pool of up to 5 samples ORF PCR Pool of up to 5 samples ORF PCR Pool of up to 5 samples Pre-lambing nutritional profile (BHB, urea, albumin) Periparturient recumbent ewe profile (Ca, Mg, BHB) Trace element profile (plus fluke serology x 6) Trace element profile (plus fluke serology and pooled WEC) Trace element profile (samples from 6 animals – copper, cobalt, s	
	-
	Border disease PCR
	Pool of up to 10 samples
	HiHealth Flockcare
en	
c	Pre-lambing nutritional profile (BHB, urea, albumin)
9	Periparturient recumbent ewe profile (Ca, Mg, BHB)
국	Trace element profile (samples from 6 animals - copper, cobalt, sele
ā	Trace element profile (plus fluke serology x 6)
ð	Trace element profile (plus fluke serology and pooled WEC)
I	
0	Thin ewe package (MV, CLA ELISA x 12, Johne's PCR pooled faecal x
he	Pre-purchase/quarantined sheep package (Scab, MV & CLA ELISA, BDV PCR, Johne's PCR)
S	MV/CAE
	CLA

~		^
L	L	Η

EAE	
Тохо	
Johne's disease Ab ELISA	
Johne's disease PCR (faeces) Pool of up to 10 samples	
Border disease virus Ab ELISA	

Border disease virus PCR Pool of up to 10 samples Individual as follow up for a positive pool

	Turnaround	Price (£)	Code
	Up to 7 days	9.30	MV_CAE
	Up to 15 days	9.40	CLA
	Up to 10 days	10.30	EAE
	Up to 7 days	10.30	OV_TOXO
	Up to 3 days	5.40	JOHNES
	Up to 7 days	10.00 9.00 6.00	SCAB_OVINE SCAB_OV_11 SCAB_OV_12
	Up to 7 days	8.25	B_FLUKE
	Up to 7 days	9.70 8.70 (10+)	BDV
	On demand	POA	
	Up to 7 days	19.00 34.00	F_COPRO_OV F_COPRO_PL
	Up to 10 days	26.00 36.00	BDV_PCR BDV_POOL
	Up to 7 days	34.00 41.00	JOHNES_PCR JOH_PCR_PF
	Up to 15 days	29.50	ORF_PCR
	Turnaround	Price (£)	Code
	n/a	30.00 100.00	
	Same to next day	13.50 6.50	PROF 046 PROF 052
	Same to next day	13.00	PROF 047
elenium)	Up to 5 days	105.00	
	Up to 7 days	145.00	
	Up to 7 days	160.00	
elenium	Up to 5 day	140.00	
x 2)	Up to 15 days	250.00	
	Up to 15 days	75.00	
	Up to 7 days	8.75 6.25 (50+)	MV_CAE
	Up to 15 days	8.75 7.00 (50+)	CLA
	Up to 10 days	10.00	EAE
	Up to 7 days	9.00	OV_TOXO
	Up to 3 days	4.25	JOHNES
	Up to 7 days	31.00 38.50	JOHNES_PCR JOH_PCR_PF
	Up to 7 days	9.50 8.50 (10+)	BDV
	Up to 10 days	25.00 34.00 21.00	BDV_PCR BDV_POOL

Cattle	Turnaround	Price (£)	Code
Antibody assays (Most tests can be done on serum, milk or bulk milk. Please call for details)			
BVD ELISA	Up to 3 days	4.10	BVDS
Johne's ELISA	Up to 3 days	5.40 4.70 (50+)	JOHNES JOHNES_50
Leptospira hardjo ELISA	Up to 4 days	6.00	LEPTOS
IBR ELISA	Up to 3 days	5.75	IBRS
IBR gE marker ELISA (serum)	Up to 7 days	8.45	IBR_GE_MA
IBR gE marker ELISA (bulk milk)	Up to 7 days	16.50	IBR_GE_MA
Neospora caninum ELISA (<40/40+ samples)	Up to 7 days	8.25 7.25 (40+)	NEO_ELISA NEO_40
Fasciola hepatica (Liver Fluke) ELISA	Up to 7 days	8.25	B_FLUKE
Salmonella ELISA	Up to 15 days	13.00	SALM_ELISA
RSV ELISA	Up to 7 days	7.00	RSVS
PI3 ELISA	Up to 7 days	7.00	PI3S
Mycoplasma bovis ELISA	Up to 7 days	8.25	M_BOVIS
Total IgG	Up to 7 days	33.00	TOTAL_IGG
Rotavirus serology (colostrum or milk only)	Up to 7 days	83.50	RVS
Coronavirus serology (colostrum or milk only)	Up to 7 days	83.50	B_CSV
Rotavirus/coronavirus combined	Up to 7 days	130.00	RVS_CSV
Ostertagia ostertagi ELISA (recommended bulk milk only)	Up to 7 days	16.50	OSTERTAG
IBR or BVD VNT (minimun of 5 samples)	On demand	POA	
Antigen detection BVD antigen (serum/ear tissue)	Up to 4 days	6.30	BVDV / BVDVE
Fluke coproantigen ELISA (faeces)	Up to 7 days	19.00	F_COPRO_B
PCR Johne's (faecal sample)	Up to 7 days	34.00	JOHNES PC
Johne's pool (5 faecal samples)	Up to 7 days	41.00	JOH PCR PI
BVD (individual serum)	Up to 4 days	26.00	BVD PCR
BVD (ear tissue test only)	Up to 4 days	4.65	BVD PCR00
BVD (ear tissue tag and test)	Up to 4 days	5.80	_
BVD (pooled serum up to 10 samples)	Up to 5 days	36.00	BVD_PCR00
BVD (bulk milk)	Up to 4 days	32.00	BVD_PCR_B
Leptospirosis (urine)	Up to 7 days	55.00	LEPTOS_PCF
Bactoproof™ mastitis PCR test (preserved milk) Detects 16 pathogens, see website for further details	Up to 4 days	51.00	MAST-16
Respiratory PCR* (swab)	Up to 7 days	62.00	RESP_PCR
Respiratory PCR* (BAL or tissue)	Up to 7 days	77.00	RESP_BAL
Respiratory PCR* (pool of up to 5 samples - must be same sample type) *Includes BoHV-1 (causative agent of IBR), PI3, RSV, Bovine coronavirus, Mycoplasma bovis, Histophilus somni, Pasteurella multocida, Mannheimia haemolytica	Up to 7 days	82.00	RESP_POOL
Fee for posted copies of report	n/a	2.00	
BVDFree antibody test upload	n/a	0.50	

CHeCS herd health programmes for BVD, leptospirosis, IBR, Johne's and N BVD only BVD testing and control	veospora		40
bTB only			35
bTB add on to BVD or full membership			25
Full Eradication, monitoring & accreditation for up to 5 diseases			85
Bulk milk monitoring programme (3 bulk milk samples per annum including testing, milk pots and veterina Silver BVD, IBR & leptospirosis CHeCS programme & Johne's, Neospora, liver flu			12
Gold Silver plus 3 Bactoproof [™] mastitis tests			19
*A £10 discount will be applied to all members who choose to accept res	sults and invoices by e-mail	or fax.	
Disease Testing	Turnaround	Price (£)	Code
<u>CHeCS Testing</u> Antibody assays (serum or individual milk) BVD ELISA	Up to 3 days	3.60	BVDS
Johne's ELISA	Up to 3 days	4.25	JOHNES
Leptospira hardjo ELISA	Up to 4 days	5.10	LEPTOS
IBR ELISA	Up to 3 days	4.10	IBRS
IBR gE marker ELISA	Up to 7 days	7.20	IBR_GE_
Neospora caninum Ab ELISA	Up to 7 days	6.50	NEO_ELI
Virus detection BVD antigen ELISA (serum)	Up to 4 days	6.20	BVDV
PCR Johne's (individual faecal sample)	Up to 7 days	31.00	JOHNES_
Johne's (pooled faecal up to 5 samples)	Up to 7 days	38.50	JOH_PCR
BVD (pooled serum up to 10 samples)	Up to 4 days	34.00	BVD_PCF
BVD (ear tissue tag and test)	Up to 4 days	5.55	
BVD (ear tissue test only)	Up to 4 days	4.30	BVD_PCF
Pliers for BVD Ear tissue testing	n/a	20.00	
Individual animal sales certificate (members) Non members Declaration required, please contact the office	n/a	10.00 15.00	
BVD Free antibody upload (per sample)	n/a	0.50	
	n/a	0.25	
BVD Free antigen test upload (per sample)			

Metabolic profile and trace element testing is also available. Please contact the cattle health team for further advice or information packs.

hihealth

ditation

achieving

t

٢d	0	0

Disease	Testing requirement	Time interval between tests	Accreditation requirement	Maintaining accred
BVD	 Antibody check test on 5 animals from each management group of animals 9–18 months for antibody. Consult CHeCS rules for definition of separate groups. Or Test all calves born over a 12-month period for virus. In addition bulk milk antibody testing in dairy herds not vaccinating against BVD. 	 12-month interval between antibody check tests. Calf virus testing ongoing throughout year. Quarterly bulk milk tests. If main bulk tank antibody positive test sample from 1st lactation heifers only – see CHeCS rules. 	2 clear tests, 1 on each of 2 subsequent calf crops. Or 2 clear calf crops. Every calf born must be tested. Negative herd or 1st lactation bulk tests.	Annual young stock check Or Continuing negative virus In addition bulk milk testi (not compulsory).
IBR	Antibody test all animals 12 months and over plus all younger non-homebred animals.	1-12 months	2 clear tests	Antibody testing on a stat older – see CHeCS rules for Breeding bulls, and for IB
Leptospirosis	Antibody test all animals in the herd 2 years and over plus animals between 1 and 2 years old that are to be kept for breeding.	6-12 months	2 clear tests	vaccinated animals must milking animals are not ir through quarterly bulk m
Johne's disease	Antibody test all animals in the herd 2 years and over. Follow-up blood/dung tests on any antibody positive animals	12 months	A herd is assigned a Risk Level a for further details. 3 clear annua been Risk Level 1 for over 2 year	al tests allow Risk Level 1 stat
Neospora	Antibody test all females in the herd 2 years and over plus females between 1 and 2 years old that are to be kept for breeding and any purchased females.	12 months	A herd is assigned a Risk Level a for further details. 3 clear annua	

Bovine TB CHeCS herd accreditation is also available through HiHealth Herdcare. A herd is given a TB score based on the last 10 years of TB test data supplied by APHA. The CHeCS Bovine Tuberculosis (bTB) Herd Accreditation Programme details, and the CHeCS Technical Document incorporating rules for cattle health schemes, are available at <u>http://www.checs.co.uk/aboutus/downloads/</u>





biobest

ditation

eck test

us screens of every calf born. sting can be used to monitor dairy herds

tatistical sample of animals 12 months and s for further details.

IBR all non-homebred and marker st additionally be tested. In dairy herds included in the sample but are monitored milk tests.

e of reactors identified - see CHeCS rules tatus. Biennial testing for herds that have

e of reactors identified - see CHeCS rules tatus.

Sample Requirements

Test	Sample Required
All Antibody testing	Clotted blood/serum tube/red-topped samples
BVD Antigen ELISA	- Lithium heparin cannot be used for BVD PCR testing
BVD / BDV PCR Biochemistry, including minerals, vitamins	- Tissue samples can also be used for BVD Ag ELISA/PCR testing
& trace elements (unless otherwise stated, see GSH-Px, others below)	
GSH-Px	Lithium heparin tube, whole blood
Blood lead	Lithium heparin tube
MCF PCR	EDTA or lithium heparin (a red-top is not suitable for this test)
Blood glucose	Fluoride oxalate tube; separated plasma or serum
Blood zinc	Serum (no metal, rubber stopper/caps or gel tubes. Most modern red-top tubes are acceptable)
Inorganic iodine	Serum (individual or pool up to 6 samples)
Haematology	EDTA tube and air dried smears (a freshly made smear improves the lab's ability to provide meaningful differential counts and blood smear reports) Lithium heparin is a good backup for large animal haematology
Tissue analysis (e.g. liver copper, selenium, other elements)	> 5 g fresh (not fixed) tissue. Freezing acceptable if mailing is delayed from time of sampling. Please note on submission if sample frozen.
Histopathology	10% buffered formalin (at least 10x the tissue volume)
Ectoparasites	Wool/hair plucks, skin scrapes in sterile screw-capped container

\geq

×	Test	Sample Required
	Mastitis PCR	Bronopol preservative advised
	Mastitis Culture	Unpreserved sample ONLY
	Antibody testing/BVD virus testing	Bronopol preservative advised

Faecal Please submit faeces samples in a leak-proof container such as a pot with a screw on lid, NOT a glove. Test Sample Required Johne's PCR >20g faeces (one full universal) Worm Egg/ Coccidial Oocyst Count (WEC) 3g faeces (a heaped teaspoon) Lungworm detection 10g faeces (a heaped dessertspoon) Fluke detection 10g faeces (40g for 'liquid' samples) WEC, Fluke and Lungworm detection >20g faeces (one full universal) Fluke Coproantigen ELISA 5g faeces for bovine 2g faeces for ovine/caprine/camelid **Clostridial toxins** 2 ml small intestinal contents in universal (freezing acceptable if mailing delayed)

S Please state the age of the animal on the form when submitting faeces for enteritis packages – what is tested varies depending nteriti on whether the animals is 1-5 days, 6-21 days or over 21 days. Test Sample Required Neonatal Ruminant enteritis profile (1-5 days) 5g faeces - Routine aerobic bacteriology (including Salmonella), Rotavirus, Coronavirus, Cryptosporidium, K99 ш 5g faeces Young ruminant enteritis profile (6-21 days) - Salmonella, Rotavirus, Coronavirus, Cryptosporidium + ani Growing cattle enteritis profile (>22 days) 5g faeces - Salmonella, worm egg and coccidial oocysts5g Adult ruminant scour package >20g faeces Rumin - Johne's PCR, Fluke Coproantigen, Salmonella culture

Respiratory swabs for PCR

Samples types:

- Plain dry nasopharyngeal swabs (gel/agar swabs cannot be tested)
- Tissue (not fixed) •
- BAL fluid (>5ml) ٠

- Up to 5 samples of the same type can be pooled.

- Samples should be received at the lab within 24 hours of collection; chilled transport preferred. - If samples are collected on a Friday they should be frozen at the practice over the weekend and sent to us on Monday with freezer packs to ensure they remain frozen. Do not send samples over the weekend as they will not be able to be stored correctly once they arrive.

- Due to the multiple PCRs required, there is a test limit of a maximum 10 samples at a time therefore advance notice of multiple samples being sent will help us provide the best possible service.

DISCLAIMER - All standard testing days subject to change without prior notice. Turnaround times may increase as a result of problems with tests or samples.

Feline Testing Days

Test	Test set up	Results Available	Notes
VNT - Antibody Test Calicivirus (FCaV) Herpesvirus (FHV)	Friday	Following Monday	
IIFT/IFA - Antibody Test Panleukopaenia (Parvo or FPV)	Tuesday	Tuesday (PM)	
IIFT/IFA - Antibody Test Toxoplasma IgG & IgM	Daily Monday-Friday	Same day if negative, following day if suspected positives.	
IIFT/IFA - Antibody Test Neospora	Tuesday & Thursday	Same day if negative, following day if suspected positives.	
IIFT/IFA - Antibody Test Coronavirus	Monday, Wednesday & Friday	Same day	
IIFT/IFA - Antibody Test FIV	Monday, Wednesday & Friday	Same day	
IIFT/IFA - Antigen Test Feline Leukaemia Virus (FeLV)	Tuesday	Tuesday (PM)	Heparin Blood preferred but EDTA can be used
Feline TB	1st & 3rd Thursday of each month	Following Monday	Heparin must be used Blood must NOT be chilled
Virus Detection - Virus Isolation Calicivirus (FCaV)	Monday	Test read Thur in the first instance	VTM swabs preferred but can use dry if required
Herpesvirus (FHV)	Friday	Test read Mon in the first instance	use dry il required
Virus Detection - Virus Isolation Feline Pox Virus	Friday	Read on following Monday then re-read until ready	
Virus Detection - PCR Panleukopaenia Virus (Parvo/FPV)	Wednesday	Wednesday (PM)	
Virus Detection - PCR Feline Chlamydia Herpesvirus (FHV)	Wednesday	Wednesday (PM)	Dry swabs preferred but can use VTM if required
Rabies FAVN	Monday, Wednesday & Friday	Wednesday (PM), Friday (PM) & Monday (PM)	Samples prepared on day of arrival (except Saturday)

Equine Testing Days

•	0		
Test	Test set up	Results Available	Notes
VNT - Antibody Test Equine Viral Arteritis (EVA)	Monday, Wednesday, Friday	Wednesday, Friday, Monday	Additional test days in busy period (Jan - Mar)
ELISA - Antibody Test Equine Viral Arteritis (EVA)	Friday (All year) Monday & Wednesday (Jan-Mar only)	Same day for negatives (See above if VNT required)	Test screens for negative samples Suspected positives are then tested by VNT
AGID Equine Infectious Anaemia (EIA)	Monday, Tuesday, Wednesday, Thursday	Tuesday, Wednesday, Thursday, Friday	



Canine Testing Days

Test set up	Results Available	Notes
Thursday	CDV/CAV/CHV Following Monday CPiV - Checked on following Monday then re-read until ready	
Tuesday	Tuesday (PM)	Samples need to arrive a day prior to testing
Daily Monday-Friday	Same day if negative, following day if suspected positives.	
Tuesday & Thursday	Same day if negative, following day if suspected positives.	
Tuesday & Friday	Same day for negative samples. Suspected positives are titrated on following test.	
Tuesday	Same day	Send as serum or plasma if possible. Best to send chilled or guaranteed O/N
Thursday	CDV/CAV/CHV Following Monday CPiV - Checked on following Monday then re-read until ready	VTM swabs preferred but can use dry if required
Wednesday	Wednesday (PM)	Blood must NOT be chilled
Friday	Friday (PM)	Samples required day before test for prep
Monday	Monday (PM)	
	Thursday Tuesday Daily Monday-Friday Tuesday & Thursday Tuesday & Friday Tuesday Tuesday Tuesday Wednesday Friday	CDV/CAV/CHV Following MondayThursdayCPiV - Checked on following Monday then re-read until readyTuesdayTuesday (PM)Daily Monday-FridaySame day if negative, following day if suspected positives.Tuesday & ThursdaySame day if negative, following day if suspected positives.Tuesday & FridaySame day for negative samples. Suspected positives are titrated on following test.TuesdaySame day for negative samples. Suspected positives are titrated on following test.TuesdaySame dayFuesdayCDV/CAV/CHV Following Monday then re-read until readyWednesdayCPiV - Checked on following Monday then re-read until readyWednesdayWednesday (PM)

Avian Testing Days

Test	Test set up	Results Available	Notes
Avian Chlamydia (AKA Psittacosis)	Tuesday (AM), Thursday (AM)	Tuesday (PM), Thursday (PM)	Faeces should be pooled from samples taken over 3-5 days for maximum sensitivity Although blood can be tested there is no published evidence to support its use Samples received by 9am on Monday or Wednesday will be included on the following days test
Psittacine Beak and Feather Disease (PBFD)	Tuesday (AM), Thursday (AM)	Tuesday (PM), Thursday (PM)	Samples received by 9am on Monday or Wednesday will be included on the following days test
Avian Polyomavirus (AKA Budgerigar Fledgling Disease)	Tuesday (AM), Thursday (AM)	Tuesday (PM), Thursday (PM)	Faeces should be pooled from samples taken over 3-5 days for maximum sensitivity Samples received by 9am on Monday or Wednesday will be included on the following days test
Pigeon Circovirus	As required	As required	Minimum of 5 samples required for this test There is limited validation of the use of blood, cloacal swabs and faeces
Sexing	Monday (O/N), Wednesday (O/N)	Tuesday (PM), Thursday (PM)	Samples received by 9am on Monday or Wednesday will be included on that nights test Extraction rate is around 60% for mouth swabs compared with around 99% for other sample types. Authorisation slip needed for mouth swabs

Porcine Testing Days

Test	Test set up	Results Available
IDEXX Porcine Reproductive + Respiratory Syndrome Virus ELISA (PRRS)	Monday	Same day (PM)
Oxoid Mycoplasma hyopneumoniae ELISA (M. hyo)	Monday	Same day (PM)
PCV-2 ELISA	Monday	Same day (PM)

Bovine & Ovine Testing Days

Test	Test set up	Results Available	Notes
ELISA - Antibody test	lest set up	Acount Available	Regular IBR ELISA is not the same as the marker
IBR (Bovine Herpesvirus-1)	Monday, Wednesday,	De affrederie a	ELISA
BVD (Bovine Viral Diarrohea Virus) Johnes (MAP)	Friday	Day after test set up	Regular BVD ELISA is for antibody detection NOT virus detection which is Antigen ELISA or PCR
ELISA - Antibody test			Milk is not a validated sample type
PI3 (Parainfluenza-3 virus) RSV (Respiratory Syncitial virus)	Tuesday	Wednesday	We will test milk samples, however we have no
M. bovis (Mycoplasma bovis)			established interpretation
ELISA - Antibody Test			
Neo (Neospora) Fluke (Fasciola hepatica)	Thursday	Friday	
ELISA - Antibody Test			
Lepto (Leptospirosis)	Tuesday, Thursday	Day after test set up	
ELISA - Antibody Test	Tuesday	Wednesday	
Ostertagia	Tuesday	weatesday	
ELISA - Antibody Test IBR gE marker	Tuesday (O/N)	Wednesday	
ELISA - Antigen Test	Wednesday, Friday	Day after test set up	Ear tissue samples must be received the day
BVD (Bovine Viral Diarrohea Virus)	<i>P</i> 7	, .	before the test to be prepared
ELISA - Antigen Test Fluke Coproantigen	Thursday	Friday	Samples needed the day before the test to be prepared
VNT - Antibody Test			
Rotavirus Coronavirus	As required	Day after test set up	
Total IgG	As required	Day after test set up	
			Serum MUST be from red top tube, heparin (green
Virus Detection - PCR	Tuesday, Thursday	Day after test set up	tops) cannot be tested by PCR
BVD (Bovine Viral Diarrohea Virus)			Samples must be received the day before the test as they are pooled/aliquoted
Virus Detection - PCR			Faeces is a validated sample type, Milk/Colostrum/
Johnes (MAP)	Wednesday	Thursday (PM)	Culture material can be tested but not covered by
View Detection DCD			ISO17025
Virus Detection - PCR Mastitis Pathogens	Tuesday, Thursday	Same or following day	Diagnostic samples follow routine procedure
			Plain dry swab is most suitable swab type, but
Virus Detection - PCR	Thursday	Friday (PM)	we can also use VTM and charcoal swabs. WE
Respiratory PCR			CANNOT use gel/agar swabs Ensure strict transport procedures are adhered to
ELISA - Antibody Test	Thursday	Friday	
Sheep Scab	Thursday	Friday	
ELISA - Antibody Test	Tuesday	Wednesday	
MVV/CAEV	·	·	
ELISA - Antibody Test CLA	Tuesday (Fortnightly)	Wednesday	
Virus Detection - PCR	Theodol Theodol	De affrederik	
BDV (Bovine Disease Virus)	Tuesday, Thursday	Day after test set up	



Notes

1. Routine Diagnostic Testing Services

0

ω

We shall conduct diagnostic testing services ("Routine Diagnostic Testing Services") as follows:

0 a. We will test a sample following its receipt as per any report or specification provided by us and in accordance with the test schedule and turnaround times publicised in our current marketing materials or on our website (www.biobest.co.uk). The testing schedule is subject to change by us without prior notification. We will use reasonable endeavours to ensure that tests are completed as per this schedule; however we make no guarantees of test times, unless specifically agreed to by us in writing. In this respect time shall not be of the essence. Upon request urgent tests may at our discretion be conducted outside the normal test schedule. In such circumstances additional charges may be applicable, and these shall be notified to you in advance of setting up the test.

b. If a sample is received in a condition such that it is considered to be broken or otherwise unsuitable for testing, we will inform you immediately

and request submission of a repeat sample. There will be no additional charge in such circumstances. However, we reserve the right to charge for the

original and re-test where the unsuitable condition of the sample does not become apparent until during or after test completion.

c. If we receive a request for test cancellation before we have set up the test, we will provide a full refund. If we receive a request for test cancellation after we have set up the test, we reserve the right to charge an amount to reflect our costs incurred up to the standard test price.

d. If we receive a request from you to add a test to a sample already received, we will conduct this additional test providing there is sufficient material. The additional charge will be as per the standard test price. 70

e. The diagnostic test service includes as standard faxed, e-mailed or posted reports, and where specifically requested telephoned results;

interpretation of results by a veterinary surgeon; advice on sampling and submission; and supply of sampling kits where appropriate. We retain ownership of and retain all copyright and other intellectual property rights in all reports, written advice and other materials prepared by us.

2. Contract Research, Project Studies, Supply of Goods

We shall conduct contract research, project studies, supply of Goods and any other service or product that we supply which is not classified as a Routine Diagnostic Testing Service (together, "the Services"), as per the scope of work and terms and conditions specified and previously agreed to by us in writing in any tender request, proposal documentation and agreed contract. In the absence of any such agreed contract, these Conditions will apply. Unless otherwise agreed in writing payment terms for such research or study work will be 40% of contract value on signature of the contract by us, 30% on completion of testing and 30% on delivery of final report.

3. Samples and Results

a. Unless otherwise agreed with us in writing, all samples received by us for Routine Diagnostic Testing Services shall become our property upon delivery of the sample to us or collection of the sample by us and, on the completion of Routine Diagnostic Testing Services, may be retained and used for research and development and other purposes. Any data or other results (and all intellectual property and other rights in them) arising from such use shall belong to us and you shall not have any rights in any of them.

b. Unless otherwise agreed with us in writing, all data, results, reports and advice produced by us as a result of our carrying out the Routine Diagnostic Testing Services shall be our property and may be used for such purpose(s) as we decide from time to time.

c. If you provide any data or information with, or relating to, the samples, we may use such data and information for our own purposes and may provide it to third parties in an anonymised manner. All personal data is held in full compliance with the General Data Protection Regulations (GDPR) and will only be passed to third parties where it is a legal requirement for us to do so or where we have your informed consent.

4. Prices and Payment

a. Prices are publicised on our website and in our current marketing materials. We reserve the right to change prices.

b. All prices for eligible transactions are subject to VAT at the current rate.

c. For non-account holders and new customers we require payment upon submission of the sample before an order will be accepted. We accept payment in pounds Sterling in the form of a cheque, bankers draft, by an electronic transfer of funds to a bank account of our choosing (with you being responsible for any costs associated with such transfer) or by debit or credit card.

d. For repeat customers and account holders we will invoice on a monthly basis. You shall pay the full amount of any invoice within 30 days from date of invoice. We will exercise our statutory right to charge interest and compensation for debt recovery costs under late payment legislation if we are not paid according to agreed credit terms.

e. We will request two trade and one banker's reference in order to set up a new account.

5.Delivery

a. If any Goods are to be delivered by us as part of this Contract then such Goods shall be delivered to a delivery address agreed to by the parties during our normal business hours. If any Goods are to be delivered outside the United Kingdom, such delivery shall be Exworks Incoterms 2000. b. We shall make reasonable endeavours to deliver any Goods within timescales notified to you. If no dates are specified, delivery shall be within a reasonable time, however time shall not be of the essence.

c. The Goods shall remain our property and title in the Goods shall not pass to you until all sums due by you to us have been paid.

d. Until the transfer of title in terms of Condition 5c above:-

- you shall store the Goods in a manner which distinguishes them from any other goods and which indicates that the Goods are (i) owned by us:
- (ii) the Goods shall be kept at your premises and you shall take good care of the Goods and use and maintain them in accordance with good industry practice:
- you shall be responsible for loss of, or damage to the Goods; and
- you shall not permit any form of security or charge to be created over the Goods. (iv)

e. Until the property in the Goods passes to you in accordance with the provisions of Condition 5c above, you shall keep the Goods insured to their full replacement value with full comprehensive insurance to be approved by us and with our interest noted on the policy. Evidence of such insurance shall be made available to us at any time on request.

6. Warranty of Performance

a. We shall exercise all reasonable skill, care and professional due diligence in the performance of the Services, however we do not guarantee or warrant that any particular result is correct or otherwise.

b. All conditions, representations and warranties relating to the Goods and/or the Services and their use and receipt and all remedies otherwise available to you are excluded to the fullest extent permitted by law

7. Limitation of Liability

a. Under no circumstances shall our liability for any loss or damage suffered by you or any other person as a result of our performance or nonperformance of our obligations under this Contract be greater than £10,000 or the total sums received by us under the provisions of the Contract, whichever is the greater. You shall indemnify us in respect of any loss sustained and any expenses incurred by us arising directly out of or in connection with your breach of this Contract.

b. We shall not be liable in any circumstances for any indirect or consequential loss or loss of anticipated profits, loss of anticipated savings or any other economic loss of yours.

c. Notwithstanding the provisions of Condition 7a and 7b above, neither party excludes or limits liability to the other party for death or personal injury arising from the breach of duty of such party.

d. Our liability to you under this Contract is excluded to the fullest extent permitted by law. e. Should any limitation or provision contained in this Condition be held to be invalid under any applicable statute or rule of law it shall to that extent be deemed omitted but if either party thereby becomes liable for loss or damage which would otherwise have been excluded such liability shall be subject to the other limitations and provisions set out herein.

8. Force Majeure

a. Any delay or failure by either party in performance hereunder, other than your obligation to pay us any monies due to us, shall be excused if and to the extent that such delay or failure is caused by occurrences beyond such party's reasonable control including but not limited to, acts of God, decrees or restraints of government, strikes, war, fire, riot, sabotage, terrorism and any other cause or causes whether similar or dissimilar to those already specified which cannot reasonably be controlled by either party. Such performance shall be so excused for the period during which such inability of the party to perform is so caused but for no longer period and shall be remedied as far as possible with all reasonable despatch. Any time period for performance shall be extended by a period equal in duration to any period during which such performance is excused by this Condition.

b. If any of the events detailed in Condition 8a above prevents either party from performing all of its obligations under the Contract for a period in excess of one month, the party affected by such non-performance may terminate the Contract.

9. Termination

a. We may terminate this Contract by providing written notice to that effect to you. b. In addition to, but without prejudice to our other rights and remedies under and in terms of this Contract, we may terminate this Contract forthwith if.

- you fail to pay any part of the price payable to us by the date specified in Condition 4 above; (i)
- (ii) you become insolvent or enter into any arrangement with your creditors:
- (iii) a petition is presented, or a resolution proposed, for the winding-up of your business;
- (iv)
- to you or any other party gives notice of its intention to appoint an administrator to you;
- (v) you are unable to pay your debts as they fall due;
- you cease trading or threaten to cease trading: or (vi)
- any equivalent event as outlined in Conditions 9b(i) 9b(vi) occurs in any jurisdiction other than Scotland. (vii)

c. In the event of termination of this Contract you shall pay to us all amounts which remain outstanding for Services performed or Goods delivered by us under this Contract within 10 Business Days of this Contract terminating.

10. Assignation

We shall be entitled to assign, transfer or sub-contract any of our rights or obligations under this Contract. You shall not assign, transfer or subcontract any of your rights or obligations under this Contract or purport to do so unless you have obtained our prior written consent.

11. Dispute Resolution

Should any dispute arise between us and you, the parties will attempt to resolve the dispute in good faith. If the parties are unable to resolve any such dispute between them, either party may request that the parties seek to resolve the dispute through mediation using the services of the Centre for Dispute Resolution to facilitate the mediation process but this shall not prejudice a party's right to raise court or other proceedings.

12. Entire Agreement

This Contract and any other document referred to herein as being applicable contains the entire agreement of the parties with respect to the subject matter of this Contract and supersedes all prior agreements and arrangements whether written or oral between the parties with respect to the subject matter of this Contract. Nothing in this Condition 12 shall have effect to exclude the liability of either party for fraud or fraudulent misrepresentation.

13. Severability

If any provision of this Contract is held by the appropriate court or other competent authority to be void or unenforceable in whole or in part this Contract shall continue to be valid as to the other provisions of it and the remainder of the affected provision.

14. Governing Law

This Contract shall be governed by and construed in accordance with the law of Scotland and the parties hereby submit to the non-exclusive jurisdiction of the Scottish courts.

any procedure is commenced with a view to the appointment of an administrator, receiver or administrative receiver in relation



Address

Biobest Laboratories Ltd 6 Charles Darwin House The Edinburgh Technopole Milton Bridge Nr Penicuik EH26 0PY

Telephone

Tel: +44 (0)131 440 2628 **Fax:** +44 (0)131 440 9587

Email

General: <u>enquiry@biobest.co.uk</u> Avian Enquiries: <u>birddna@biobest.co.uk</u>

Website

www.biobest.co.uk

Follow Us

- f @biobestlaboratories @hihealthherdcare
- 🔰 @biobest_labs @hhherdcare @hhflockcare
- in **Biobest Laboratories Ltd**
- Biobest Laboratories
- @biobestlaboratories