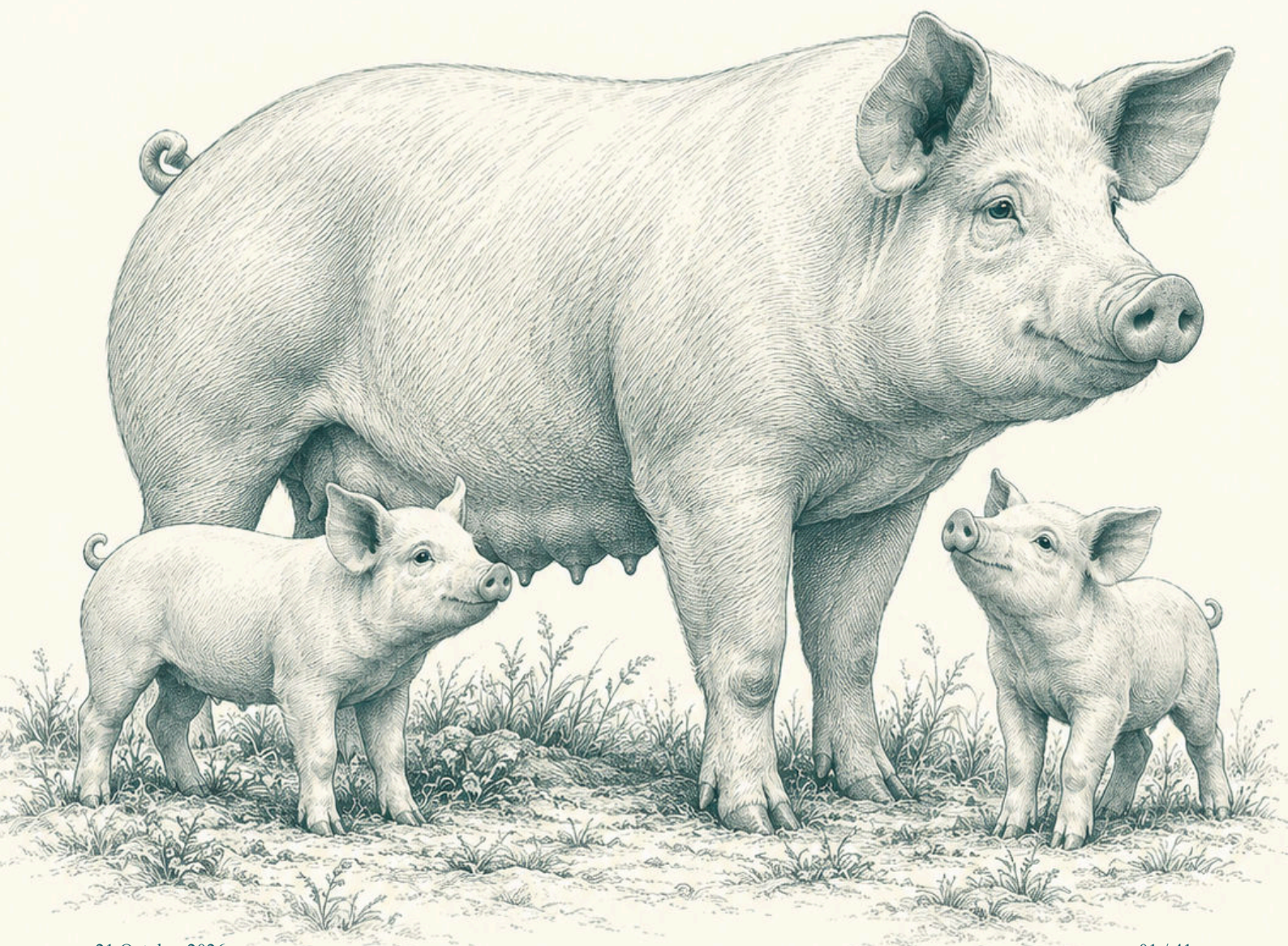


PHILIPPINES / 2026

Swine Disease Testing and Monitoring

HANDBOOK

ASF monitoring · Disease chapters · Result interpretation





Laboratory services

High Hope Vet Services Inc. · Philippines

Nucleic acid testing, selected typing assays and multiplex panels support incoming-pig assessments, disease investigations and herd monitoring.



Same-day routine reports

Routine samples received before 12 noon receive reports the same day. Confirm turnaround for additional typing and special tests.

Complimentary collection tubes

Customers may request suitable collection tubes. Contact the laboratory before submission to confirm material requirements and delivery arrangements.

Equipment	Capacity
Automated nucleic acid extractors	10 instruments
qPCR instruments	6 instruments from leading international brands, including Bio-Rad (USA).

The laboratory uses designated work zones, and staff complete training before taking up their duties. 70% of staff hold doctoral degrees in veterinary medicine.



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Clinical signs and test selection

Select tests using production stage, clinical findings and previous results

Testing supports disease investigations and herd health assessments. Several pathogens can cause similar signs. Production stage, illness history and previous results guide test selection. The table links common clinical presentations to relevant investigations.

Common clinical presentations

Clinical signs	Relevant tests	Submission information
Sudden poor appetite, fever or rising mortality	ASF and classical swine fever. Include PRRS, influenza A and pleuropneumonia in investigations involving respiratory distress.	First affected group, recent mixing and movements, and mortality trends.
Cough, difficult breathing or poor growth	PRRS, influenza A, mycoplasmal pneumonia and pleuropneumonia; PCV2/PCV3 where relevant.	Age; sudden or persistent cough; associated fever and mortality.
Diarrhea, dehydration or bloody feces	PED, TGE, RoV-A and PDCoV; ETEC, clostridial enteritis, proliferative enteropathy and swine dysentery.	Suckling, weaned or finishing pigs; watery or bloody diarrhea; affected litters and groups.
Returns to service, abortion, stillbirths or weak piglets	ASF, PRRS, PPV, PRV, PCV2/PCV3, JEV, GETV and brucellosis; feed ZEN.	Parity and gestational stage; illness in sows; vaccination, purchase and feed history.
Lameness, swollen joints, nervous signs or blisters	Glässer disease, S. suis and pseudorabies. Include FMD in investigations involving blisters.	Sequence of signs, affected ages and veterinary examination findings.

Review of continuing illness

Contact the herd veterinarian when a group deteriorates suddenly, and pause mixing and movement of the affected group. Continued illness despite a negative report, or disagreement between results and clinical signs, requires further investigation using the original report and subsequent observations.



01 African swine fever: recognition and testing

ASF | Purchase, illness investigation and stage transitions

ASF qPCR supports investigation of herd illness and health assessments at key production stages. A sudden fall in feed intake, fever, lethargy, rising deaths or reproductive problems should trigger a review. Pigs at all stages can be affected, with clinical signs of varying severity. Monitoring combines health observations with laboratory records.

Testing applications

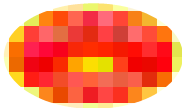
Scenario	Testing plan	Clinical use
Before purchasing pigs	Combine ASF qPCR with source-herd, batch and health records.	Add batch-specific evidence to purchase and acceptance decisions.
Illness in the herd	Investigate ASF by qPCR alongside other causes indicated by the signs.	Add pathogen evidence and identify groups needing further attention.
End of quarantine or planned movement	Review current health, previous results and recent contacts to guide testing.	Update the health assessment before a production-stage handover.
An unexpected test result	Match the report to the batch and arrange laboratory and clinical review.	Clarify the finding and the management response.

Monitoring records

Place the onset of illness, batch identity, feed intake and deaths on one timeline with purchases, mixing, movements and vaccination. Continuous records help distinguish existing illness, new changes and linked batches. Clinical observation and qPCR provide complementary evidence. Findings for other pathogens should be assessed against the full course of the illness.

Management priorities

There is no specific treatment for ASF, and antibiotics do not eliminate the virus. Priorities are prompt recognition, result review and management of contacts and movements involving affected groups. Defer mixing or movement while results remain unresolved or illness continues; the attending veterinarian coordinates further action. Treatment of concurrent bacterial disease requires supporting diagnostic evidence. Short-term improvement should be assessed alongside subsequent herd health.



01 Pre-purchase testing and assessment

ASF | Assess the batch that will actually be delivered

Incoming-pig assessments cover purchase, arrival and completion of quarantine. ASF qPCR results are considered with source-herd health, batch composition and recent contacts. Each report should match the pigs actually delivered. Changes to the source or delivery batch require an updated health assessment.

Testing for incoming pigs

Scenario	Testing plan	Clinical use
Before purchase	Arrange ASF qPCR alongside source-herd health and vaccination records.	Provide health evidence for the proposed purchase batch.
A source or delivery batch changes	Review added sources and batch composition, and update testing records.	Keep the assessment aligned with the pigs being delivered.
Illness after arrival	Record clinical changes and investigate ASF and other relevant causes.	Support quarantine management and subsequent herd-entry decisions.
Before quarantine ends	Review source records, quarantine observations and qPCR results together.	Support the receiving batch’s entry assessment.

Submission information

Provide the supplier, source herd, batch identity, report dates, submitted animals and vaccination history. Update these records when the batch changes, pigs from another source are added or delivery composition changes. Link original batch identities to the delivery list so that earlier results and later health changes remain traceable.

Quarantine and handover

Receive pigs under the farm’s quarantine arrangements and keep their observations and test records together. Reduced feeding, fever or deaths after arrival require investigation of the clinical course; transport stress is one possible explanation to assess. Resolve inconclusive findings before mixing. A negative purchase-stage report describes the submitted material at that time. Entry decisions also include subsequent clinical observations and contact history.



01 Gilt: quarantine and entry assessment

ASF | Maintain a continuous quarantine health record

Gilt-entry assessments depend on a complete quarantine record. Purchased and home-reared gilts both need traceable source, grouping and contact information, considered alongside ASF qPCR findings. Recording illness, recovery and follow-up reviews provides a clear handover before entry into the breeding herd.

Testing for gilts

Scenario	Testing plan	Clinical use
Establishing a gilt batch	Review source, previous reports and vaccination history in the ASF record.	Establish the batch’s health and testing history.
Illness during quarantine	Investigate ASF by qPCR using the onset and course of the illness.	Support changes to quarantine management and the entry plan.
Changes in grouping or contacts	Update batch relationships and assess testing needs after new contacts.	Include new exposure history in the current assessment.
Entry into the breeding herd	Review quarantine observations, contacts and laboratory conclusions.	Support the health handover to the breeding herd.

Batch records

Gilt records should connect source, arrival, grouping, illness and test results. Keep the link between original and new identifiers when batches are split or combined. Previous fever, reduced feeding or deaths remain relevant even after apparent recovery. Retaining these events allows the clinical course and changes in laboratory findings to be assessed together.

Vaccination history and entry decisions

Vaccination records form part of the health history and should include the product and vaccination events. Interpret qPCR findings with the clinical and vaccination background. Antibody positivity alone does not establish readiness for entry. Additional tests for vaccine-associated or deletion characteristics should match the existing findings and the assay’s coverage. Plan breeding schedules separately from health review, and resolve outstanding illness before mixing.



01 Investigating illness in breeding sows

ASF | Assess systemic illness and reproductive changes together

A rise in abortions or abnormal farrowings alongside reduced feeding, fever or deaths calls for a combined investigation. ASF qPCR contributes evidence for infectious causes, while reproductive records establish the clinical course. An isolated abortion has many possible causes; simultaneous changes across herd indicators warrant a broader assessment.

Testing in the sow herd

Scenario	Testing plan	Clinical use
Reduced feeding or activity	Investigate ASF by qPCR and other relevant causes using individual and group records.	Distinguish individual illness from a shared change in the batch.
More abortions or abnormal farrowings	Assess testing alongside reproductive, fever, mortality and vaccination records.	Relate reproductive losses to possible infectious causes.
Illness in sows followed by piglets	Link sow identity, litter number and piglet batch when reviewing results.	Assess clinical links between dams, litters and production stages.
Results do not match the clinical signs	Review report identity, test coverage and the illness record.	Fill diagnostic gaps and revise the investigation plan.

Submission information

Record sow identity, parity, gestation or lactation stage, onset and subsequent changes. Retain the sequence of reduced feeding, abortion and death alongside treatment, vaccination and management changes. A complete history provides more context than an entry stating only abortion or death, and supports consideration of other causes of reproductive loss.

Breeding-herd management

Interpret qPCR results for the submitted sows or relevant batch. Assessment of linked breeding groups also includes clinical and contact records. Defer movements involving unresolved illness or inconclusive findings while production arrangements are reviewed. Interpret vaccination records for the actual product and pig category. Vaccine information for finishing pigs cannot be directly applied to pregnant or lactating sows.



01 Investigating illness in piglets

ASF | Link dam and litter records with the batch history

Dam-litter relationships and batch records are important to ASF investigation in piglets. Lethargy, reduced feeding, fever or rising deaths should be assessed with the health of sows, littermates and the wider batch. Piglets can also contract ASF. Around weaning or movement, history and testing help assess infectious and management-related causes.

Testing in piglet groups

Scenario	Testing plan	Clinical use
Sudden illness within a litter	Select diagnostic tests using litter identity, dam health and the clinical course.	Relate piglet illness to the health of the dam.
Similar illness across batches	Review sources and movement links and investigate ASF by qPCR.	Support a coordinated investigation of linked batches.
More deaths after weaning or movement	Compare clinical records before and after movement with qPCR findings.	Separate existing illness from newly observed changes.
Another pathogen has already been detected	Review the clinical relevance of that finding and add ASF investigation as indicated.	Complete the assessment of illness that remains unexplained.

Dam, litter and batch records

Identify the suckling or nursery stage, litter or batch, onset of illness and signs in other pigs. Retain the original dam-litter relationship and source batch after fostering or regrouping. Record diarrhea, fever and deaths occurring at different times separately, then assess their relationship from the history. This keeps distinct events from being interpreted as one episode.

Production-stage handover

Include current health, previous qPCR findings, actions taken and unresolved illness in the handover. Interpret results for the piglets or batch represented; one litter’s result does not describe the whole nursery. Update the investigation when signs persist, new linked batches become affected or findings conflict. Coordinate movement with health review and transfer the illness record with the batch.



01 Finisher illness and movement assessments

ASF | Use batch trends in illness and movement reviews

ASF assessment in finishing pigs should track feed intake, illness and deaths within the same batch. A sudden fall in feeding, more sick pigs or deaths above the batch’s usual level calls for investigation. qPCR findings and batch trends together support assessment of current health and decisions on transfer or dispatch.

Testing in finishing pigs

Scenario	Testing plan	Clinical use
Purchased finishers or a new batch entering housing	Review source, batch identity and previous qPCR results at acceptance.	Establish the new batch’s health and testing record.
Sudden changes in feeding or deaths	Compare the batch history and investigate ASF and other relevant causes.	Provide evidence for the illness and linked-batch investigation.
Illness after vaccination	Interpret vaccination records alongside the clinical course and qPCR findings.	Interpret findings alongside vaccination history and current illness.
Before transfer or dispatch	Review current health, unresolved findings and recent contact changes.	Support the batch’s health assessment before movement.

Batch trends

Record stocking numbers, sources and regrouping when assessing feed intake and deaths. Changes in the number or composition of pigs affect batch statistics and should be described separately from changes due to illness. Keep dated records of treatment, feed changes and husbandry adjustments. These allow clinical events to be matched with laboratory findings and comparisons within the same batch.

Vaccination and movement

For vaccinated finisher batches, provide the ASF vaccine name and vaccination records. Assessment after vaccination still requires clinical and qPCR information; an antibody response alone does not establish protection. Defer movement of batches with continuing illness or inconclusive results while review is completed. Base the current decision on updated health records.



01 Contamination associated with people

ASF | Link contamination findings with contact records

Personnel-related testing supports contamination investigations and farm biosecurity. People do not contract ASF, but their activities can carry contamination between pig groups. Interpret detections in associated materials alongside activity and contact records. The finding concerns viral nucleic acid in the material, not infection in the person.

Personnel-related testing applications

Scenario	Testing plan	Clinical use
New staff, visitors or returning personnel	Review recent contacts and assess the need for a contamination investigation.	Provide contact information for entry-management decisions.
Work across farms or production areas	Retain work-location and pig-contact records and link unexpected findings.	Identify personnel connections between pig groups.
Nucleic acid detected in associated material	Match the submitted material to the activity and review the result.	Connect the contamination finding with activities and linked groups.
After management corrections	Review completed actions with subsequent test findings.	Support work arrangements and staff handover.

Activity and contact records

Record dates, work activities, places visited and relevant pig groups. Include external services and work across production areas in the handover. Relate activity records to testing dates during an investigation. A single detection does not independently establish transmission direction, timing or personal responsibility. Conclusions about these relationships require the complete history.

Workplace management

Apply the farm’s entry, clothing and zoning requirements to employees, visitors and temporary service personnel. Record the responsible person, completed corrections and follow-up arrangements so that duties transfer clearly between roles. Use testing alongside these implementation records to manage contamination. A negative finding in personnel-associated material does not replace assessment of the pigs’ health.



01 Material sources and contamination

ASF | Interpret by batch and retain movement records

Testing of materials provides contamination evidence for source reviews, unusual-contact investigations and batch tracing. Match each report to the identified item or batch and interpret it with arrival, distribution and use records. Record the laboratory conclusion separately from the acceptance decision to preserve traceability.

Testing applications for materials

Scenario	Testing plan	Clinical use
A new supplier or source	Assess the scope of qPCR testing against source, intended use and acceptance requirements.	Add evidence to source review and batch acceptance.
Incomplete source or handover records	Complete batch and movement records and assess relevant contamination testing.	Identify affected materials and receiving steps for review.
Nucleic acid detected in material	Verify report and item identity, pause use of the relevant batch and complete review.	Support tracing of linked materials and assessment of pig contact.
Before use resumes	Review investigation findings, corrective actions and the health assessment.	Document the basis for resuming use.

Batch and movement records

Retain the supplier, material name, batch, arrival date and destination of use. Materials should remain traceable to the original batch after repacking or distribution to different areas. Complete handover records help connect related materials, receiving areas and pig contacts. Keep results linked to the specific batch instead of grouping all findings under a supplier’s name.

Result interpretation

A detection identifies target nucleic acid in the submitted material. PCR alone does not establish viral infectivity or infection in pigs. A not-detected finding is also limited to the submitted material and the method’s scope. Acceptance combines testing with source and use records. Conclusions apply to the relevant batch; one result cannot establish the safety of every product from a supplier.



01 Environmental monitoring and interpretation

ASF | Evidence for contamination review and corrective action

Environmental qPCR supports contamination investigation, contact analysis and review of corrective actions. Assess findings alongside activities in the area, links to pig groups and implementation records. Detection in environmental material and infection in pigs are separate conclusions; record them separately and assess their relationship within the investigation.

Environmental testing applications

Scenario	Testing plan	Clinical use
Unusual contact or illness in pigs	Arrange environmental qPCR according to the event history and investigation purpose.	Add environmental evidence to the contact investigation.
Nucleic acid detected in the environment	Review material identity, activity records and the corresponding result.	Relate the finding to activities and linked pig groups.
After cleaning or management corrections	Assess subsequent findings with records of completed actions.	Provide laboratory and implementation evidence for review.
Before an area returns to use	Review environmental findings, corrections and the health of linked pigs.	Support the decision to resume use of the area.

Records and contact analysis

Record pig, environmental and material results separately, then relate them by time, batch and activity. These submissions represent different subjects, so their positivity figures should also remain separate. Activity and contact records provide leads for investigating contamination sources. Detection locations or the sequence of results alone do not establish transmission direction.

Contamination and infectivity

Environmental PCR detects nucleic acid; it does not directly establish infectious virus or infection in pigs. A not-detected finding applies to the submitted material. Review of an area’s return to use also considers completed cleaning, corrections to personnel and material practices, and the health of linked pigs. A single negative result is insufficient for clearance. New abnormalities require the investigation and reuse assessment to be updated.



01 Interpreting ASF test results

ASF | Distinguish qPCR, antibody records and Ct values

ASF qPCR detects viral nucleic acid in the submitted material, while antibody findings reflect an immune response. Interpretation requires correct identity, valid testing, the clinical course and vaccination history. Ct is part of the laboratory result. It does not independently establish virulence, the date of infection or fitness for movement.

Result interpretation and use

Scenario	Testing plan	Clinical use
PCR detected	Match the submitted animals or materials and review clinical and vaccination records.	Define the scope of the finding and support management of linked pigs.
PCR not detected with continuing illness	Review the history and test coverage and continue relevant diagnostic investigation.	Keep unresolved clinical disease under investigation.
Inconclusive or invalid result	Provide additional information or complete follow-up review as stated by the laboratory.	Obtain a valid conclusion suitable for interpretation.
An existing antibody report	Match herd and timing and review previous infection and vaccination.	Add immune-response context to the qPCR assessment.

Antibody findings

Detectable antibodies may be absent during acute disease, so a negative antibody result does not negate a qPCR detection. When both are detected, interpretation still requires the clinical history. When qPCR is not detected but antibodies are present, review prior infection and vaccination. A result combination alone does not establish disease stage, recovery or protection. Antibody information here is for interpreting records already held by the client.

Ct values and report review

Ct varies with the method, submitted material and other testing conditions. Direct comparison across methods is inappropriate. Follow-up review depends on the laboratory findings and report requirements; a farm-wide Ct cutoff should not replace that review. Inconclusive and invalid results differ from negative findings. Record the interpreted laboratory conclusion separately from the production decision, retaining the batch identity and responsible person.



01 Typing, deletion and marker tests

ASF | Further characterization within the test’s stated scope

Routine ASF qPCR detects viral nucleic acid. Typing, recombinant differentiation, deletion-associated and vaccine-marker tests add specific information. Select these tests using existing findings, the clinical history and vaccination background. The report’s stated coverage links the detected characteristics to their intended management use.

Additional testing applications

Scenario	Testing plan	Clinical use
Further typing after routine detection	Select typing or recombinant differentiation with coverage relevant to the existing report.	Add category information for case assessment within the assay’s scope.
Deletion assessment	Select an applicable deletion-associated qPCR test using prior findings and history.	Provide a conclusion on the deletion characteristics assessed.
Vaccine-marker assessment	Provide product and vaccination records and check marker-test coverage.	Inform interpretation in the specified vaccination background.
Additional findings differ from earlier records	Compare original reports, test coverage and event records during review.	Clarify differences and complete the case record.

Differentiation findings

Typing describes the categories covered by the assay; deletion and marker tests describe the corresponding characteristics. Genotype or deletion findings do not directly establish virulence. Absence of a marker does not exclude every vaccine-associated source. Distinguishing vaccine-associated findings from natural infection depends on the particular product and method. Additional tests do not provide a universal distinction.

Case review

Organize the earliest signs, related pig groups, contact events, laboratory conclusions and completed actions in the case record. Relate this evidence to subsequent production arrangements and identify remaining information needs and responsible staff. When environmental nucleic acid is detected but pig testing is negative, retain both findings separately. Assess their relationship using activity records instead of combining results from different subjects into a whole-farm conclusion.



02 Porcine reproductive and respiratory syndrome

PRRS | Infection testing and assessment for further typing

Test for PRRSV when premature farrowings, stillbirths or weak-born piglets increase, or nursery and finishing pigs develop respiratory problems and poor growth. Use the findings to assess infection and select additional tests for concurrent pathogens according to the clinical signs.

Testing indications

Situation	Testing plan	Clinical use
Incoming or replacement pigs	Request general PRRSV RT-qPCR; review source-herd records.	Provides PRRSV findings for veterinary review of the introduction plan.
Unexpected reproductive losses	Test for PRRSV. With mummies or other findings, the veterinarian may also select PPV, PCV2/PCV3 or PRV-gE.	Supports assessment of PRRSV in the reproductive losses.
Respiratory disease or rising deaths	Test for PRRSV; consider SIV-A, Mhp, APP or G. parasuis (HPS) according to the clinical findings.	Assesses concurrent infections contributing to respiratory disease and deaths.
Before regrouping or movement	Review previous results, signs and production records before repeat testing.	Supports regrouping and management decisions alongside the recovery record.

Result interpretation

A positive result indicates detection of PRRSV genetic material. It does not identify the source or predict severity. One negative result does not establish farm-wide freedom from infection. Report recent modified-live PRRS vaccination.

Submission information

Include production stage, onset, affected barns, changes in losses or deaths, introductions and vaccination history. Specify the purpose as investigation, pre-entry assessment or follow-up so the laboratory can interpret the findings in relation to the planned management step.

Management priorities

Pause mixing and movement of affected groups while the veterinarian reviews the case. Supportive care and treatment of concurrent bacterial disease may be needed. Antibiotics do not eliminate PRRSV. Review the clinical trend and test findings before changing the vaccination or herd plan.



02 PRRS: detection and typing options

PRRS testing | Select the test for its clinical purpose

General PRRSV testing detects viral genetic material. Duplex testing differentiates PRRSV-1 and PRRSV-2, while other typing tests examine the specific category markers listed in the catalogue. Select the test using the case history and previous findings to avoid duplicate testing.

Test selection

Situation	Testing plan	Clinical use
Initial investigation or pre-entry assessment	General PRRSV RT-qPCR.	Detects PRRSV genetic material in the submission.
Differentiation of the two virus types	North American/European PRRSV duplex RT-qPCR.	Distinguishes PRRSV-2 and PRRSV-1 findings.
Investigation of specific categories	Select HP-PRRSV or the North American/HP/NADC30-like/NADC34-like four-target test for the clinical investigation.	Reports the covered category markers for clinical investigation.
A new report differs from an earlier report	Send both complete reports for laboratory review before selecting follow-up tests.	Reviews test scope and case changes to help explain differing reports.

Result interpretation

A general positive result cannot be relabelled as HP-PRRSV, NADC30-like or NADC34-like. Typing describes the features examined by that test. It does not identify the source farm, predict mortality or establish vaccine protection. North American and European are type names, not proof of where this infection originated.

Submission information

Include the exact previous test names, complete results, clinical timeline and vaccination history. State the purpose of typing, such as investigating the detected category during a rise in reproductive losses. This allows the laboratory to review previous coverage and plan further testing.

Management priorities

Interpret typing alongside clinical changes, introductions and previous results. Categories outside the test coverage need separate assessment. A negative category marker does not cancel a general positive result. Treatment or removal decisions require clinical evidence beyond the category name.



03 Swine influenza A

SIV-A | Investigating a sudden respiratory outbreak

Consider influenza A when many pigs in a barn suddenly develop coughing, sneezing, fever and reduced feed intake. These signs are not unique to influenza. Interpret testing alongside the speed of onset, production stage and changes in the affected group.

Testing indications

Situation	Testing plan	Clinical use
Sudden coughing and fever in a group	Contact the veterinarian and laboratory to arrange SIV-A RT-qPCR.	Detects influenza A genetic material during an acute respiratory investigation.
Respiratory problems with poor growth	Test for SIV-A; the veterinarian may also select PRRSV or Mhp.	Investigates concurrent infection in persistent coughing and poor growth.
Marked breathing difficulty or rising deaths	Arrange prompt veterinary assessment and consider available APP or G. parasuis (HPS) testing when indicated.	Assesses coinfection to support management of severe illness.

Result interpretation

A positive SIV-A result detects influenza A genetic material. It does not identify an H1, H3 or other subtype. A negative result does not exclude all respiratory disease. If the clinical picture and result disagree, request a case review rather than changing the entire herd plan from one report.

Submission information

Record onset, affected barns and ages, the speed of increase in coughing, and changes in feed intake and deaths. Include recent introductions, movement, vaccination, medication and previous respiratory results. Specify an acute outbreak investigation or assessment of persistent coughing.

Management priorities

Pause mixing and movement of affected groups. Review ventilation, temperature and access to water. Veterinary care may include supportive management and treatment of concurrent bacterial disease; antibiotics do not treat the influenza virus itself. Anyone developing fever or respiratory illness after contact with pigs should seek medical care and mention that contact.



04 Classical swine fever

CSF | Investigating fever, reproductive losses and increasing deaths

Classical swine fever can involve fever, poor appetite, depression, diarrhea or an abnormal gait. Reproductive losses may occur first. These signs overlap with African swine fever and other diseases. Fever and skin discoloration are nonspecific, so diagnosis requires laboratory testing and veterinary assessment.

Testing indications

Situation	Testing plan	Clinical use
Fever and a marked drop in feed intake in several pigs	Contact the veterinarian and laboratory promptly to assess CSFV RT-qPCR.	Provides CSFV nucleic acid findings for investigation of febrile illness.
Unusual deaths, diarrhea or changes in gait	The veterinarian may arrange CSFV testing together with ASFV or other relevant tests.	Supports differentiation of diseases with overlapping clinical signs.
Reproductive losses with wider herd illness	Review the sow and piglet findings before selecting CSFV, PRRSV, PPV or other tests.	Investigates infectious causes alongside sow and piglet findings.

Result interpretation

A positive CSFV result requires prompt review with the laboratory and veterinarian. A negative result means the target was not detected in this submission. Other causes still require clinical assessment. Continuing fever or deaths warrant further investigation; review the complete report and case history when findings differ from the clinical picture.

Submission information

Include the timeline, affected ages and barns, changes in appetite and deaths, and reproductive findings. Provide introduction, movement, vaccination and previous testing records. Contact the laboratory before submission to explain the suspected problem and confirm the testing arrangement.

Management priorities

Pause mixing and movement between farms while the cause is investigated. Arrange veterinary assessment and continue recording fever, appetite, reproductive losses and deaths. Reduced fever or brief recovery reflects a change in signs alone. Unexplained illness or deaths warrant continued investigation after an initial negative result.



05 Foot-and-mouth disease

FMD | Blisters, drooling or marked lameness need prompt assessment

Blisters on the snout, mouth or feet, drooling and marked lameness require prompt veterinary attention. Several vesicular diseases look alike. Photographs document the signs; diagnosis requires testing and veterinary assessment. Pigs that continue eating still need evaluation for foot-and-mouth disease.

Testing indications

Situation	Testing plan	Clinical use
New blisters on the mouth, snout or feet	Contact the veterinarian and laboratory to assess general FMDV RT-qPCR.	Provides FMDV findings for assessment of vesicular disease.
Further assessment for serotype O	Review the case and general result before selecting FMDV type O RT-qPCR.	Reports detection of type O FMDV genetic material.
Signs and the report do not agree	Provide the full history and original report for laboratory review and veterinary consultation.	Reviews the discrepancy to guide further investigation.

Result interpretation

General FMDV and type O tests have different uses. A negative type O result does not exclude every FMDV serotype, and a general positive result cannot automatically be called type O. Interpret the report according to the actual test. Continuing signs require veterinary review and further investigation alongside the initial result.

Submission information

Describe when blisters or lameness were first noticed, affected groups, accompanying fever or poor appetite, and recent introductions or movement. Include previous reports and relevant vaccination history. Contact the laboratory first to explain the case and confirm the appropriate testing arrangement.

Management priorities

Pause mixing and movement of affected groups and limit unnecessary movement of people and equipment. The veterinarian should assess pain, feeding difficulties and the wider herd situation. Record new cases and recovery. Healing blisters reflect clinical improvement; confirmation of the cause and subsequent herd management still require laboratory review and veterinary assessment.



06 Pseudorabies

PRV | Neurologic, respiratory and reproductive presentations

Pseudorabies varies with age. Piglets may develop tremors or paddling movements, older pigs may have respiratory illness, and sows may show reproductive losses. Cases at different ages within the same herd should be assessed together using sow and piglet records.

Testing indications

Situation	Testing plan	Clinical use
Neurologic signs or unusual piglet deaths	Arrange veterinary assessment and consider PRV-gE qPCR.	Detects the PRV gE target during investigation of neurologic signs.
Recurrent respiratory disease	Consider PRV-gE together with available PRRSV or SIV-A testing, according to the case.	Investigates PRV and coinfection in recurrent respiratory disease.
Reproductive losses with piglet illness	Provide sow and piglet records together; assess PRV-gE, PRRSV, PPV or other relevant tests.	Assesses related disease events using sow and piglet findings together.

Result interpretation

This is a PRV-gE nucleic acid test, not a gE antibody test or a measure of vaccine protection. Interpretation depends on the vaccine used and the test’s documented coverage. The project name alone does not guarantee differentiation of every field and vaccine strain. One negative result does not prove that pigs were never infected or exclude latent infection.

Submission information

Include ages, neurologic or respiratory signs, reproductive changes, onset and the death trend. Provide full vaccine names, vaccination dates, recent introductions and previous PRV reports. Identify antibody and nucleic acid reports separately, and state the management decision that the new result will support.

Management priorities

Pause mixing of affected groups and obtain prompt veterinary care for neurologic disease or breathing difficulty. Review vaccination records and other pathogen results before changing the herd programme. Clinical improvement alone does not establish infection status; follow-up decisions also require the case history and laboratory review.



07 Porcine circovirus type 2-associated disease

PCV2 | Investigating wasting, poor growth and reproductive losses

Consider PCV2 when pigs in the same batch show persistent wasting, widening weight differences or respiratory problems. Infection is common. Nucleic acid testing provides evidence of infection; diagnosis of PCV2-associated disease also requires compatible clinical and pathological findings.

Testing indications

Situation	Testing plan	Clinical use
Poor growth in nursery or finishing pigs	Request the combined PCV2/PCV3 qPCR and provide batch-performance records.	Provides PCV2 findings for assessment of poor batch performance.
Wasting with coughing or rising deaths	Use the PCV2/PCV3 test; the veterinarian may also select PRRSV, Mhp or other respiratory tests.	Assesses coinfection alongside other causes of poor growth.
Persistent unexplained reproductive losses	Review previous PRRSV, PPV and other results before selecting PCV2/PCV3 testing.	Adds PCV2 findings to the assessment of reproductive losses.

Result interpretation

A positive PCV2 result alone does not establish PCV2-associated disease. Diagnosis requires compatible clinical findings and supporting pathological evidence. Read PCV2 and PCV3 results separately. One positive target does not make both positive. Do not compare results from different occasions without reviewing the test and case details, or use a universal Ct cutoff as a diagnosis.

Submission information

Include age, changes in growth and feed intake, the trend in wasting, accompanying diarrhea or respiratory signs, and deaths. Provide vaccination history, previous circovirus reports and other pathogen findings. Include any existing veterinary or pathology reports so that nucleic acid detection can be interpreted in context.

Management priorities

Review nutrition, the environment and concurrent infections with the veterinarian. Detection alone is not a reason to change medication for the entire herd. Use follow-up testing to assess continued wasting or planned herd management, with clinical changes guiding decisions rather than a negative report alone.



08 Porcine circovirus type 3 infection

PCV3 | Supporting investigation of reproductive losses and wasting

PCV3 can be detected in reproductive and wasting cases, but also in apparently healthy pigs. Nucleic acid testing detects viral genetic material to support the clinical investigation. A single positive result does not directly attribute abortions, weak-born piglets or deaths to PCV3.

Testing indications

Situation	Testing plan	Clinical use
Increasing abortions, stillbirths or weak-born piglets	Request combined PCV2/PCV3 qPCR and provide previous reproductive-disease results.	Provides PCV3 findings as part of the reproductive investigation.
Persistent unexplained wasting	Review the clinical examination and previous findings before selecting PCV2/PCV3 testing.	Assesses the relevance of PCV3 findings to persistent wasting.
A positive report prompts follow-up or management changes	Review signs, production records and other pathogen results before planning follow-up testing.	Reviews the clinical relevance of detection before management changes.

Result interpretation

A positive result detects PCV3 genetic material; it does not by itself establish PCV3-associated disease. Interpretation requires the clinical picture and, where appropriate, veterinary assessment of pathology. PCV3 should not become a blanket explanation for skin, kidney or reproductive problems. A negative result does not exclude other infections or noninfectious causes.

Submission information

Describe reproductive losses, weak piglets, wasting or other signs prompting submission. Include timing, affected groups, sow parity, litter changes, deaths and growth records. Attach previous PRRSV, PPV, PRV-gE or other relevant reports, together with any existing veterinary or pathology findings.

Management priorities

Address the active clinical problem while the veterinarian reviews nutrition, the environment and possible concurrent infections. A positive result alone does not justify changing herd medication or assigning every sign to one disease. Plan follow-up around persistent signs and proposed management changes, then assess the new result in that context.



09 Porcine parvovirus infection

PPV | Mummified fetuses, returns to service and smaller litters

Consider PPV when litters contain mummified fetuses of different sizes, returns to service increase or litter size falls. Affected sows may appear well and have no fever. Abortion and reproductive losses have several possible causes, requiring interpretation of testing alongside reproductive records.

Testing indications

Situation	Testing plan	Clinical use
An increase in mummified fetuses	Request PPV qPCR and provide sow parity and litter findings.	Supports assessment of PPV alongside fetal and reproductive findings.
More returns to service or smaller litters	Have the veterinarian review breeding, pregnancy and vaccination records before selecting PPV testing.	Adds PPV findings to investigation of returns and smaller litters.
Reproductive losses with fever or piglet illness	Assess PPV and consider PRRSV, PRV-gE or PCV2/PCV3 according to the findings.	Investigates concurrent infections affecting reproduction and herd health.

Result interpretation

Interpret a positive PPV nucleic acid result with the reproductive history and clinical findings. This test detects viral genetic material; it is not an antibody test and does not directly measure vaccine protection. A negative PPV result does not exclude other reproductive infections or noninfectious causes such as breeding problems, nutrition or heat stress.

Submission information

Include sow parity, breeding and expected farrowing information, timing of returns or abnormal farrowings, and changes in live-born, stillborn and mummified piglets. Record recent vaccination, introductions and previous reproductive-disease results. Organise the history by sow or batch rather than describing every event simply as an abortion.

Management priorities

Review gilt and sow vaccination, breeding management, feed, the environment and possible concurrent infection with the veterinarian. One result does not justify changing medication across the herd. Track reproductive performance in later batches and use continuing losses or recovery to guide follow-up and management changes.



10 Japanese encephalitis virus infection

JEV | Reproductive losses and mosquito exposure

In pigs, JEV investigation mainly concerns abortions, stillbirths, mummified fetuses or weak-born piglets. Affected sows may show no obvious illness. Mosquito activity and the timing of losses help describe the case, but neither the season nor mosquito numbers establish the cause.

Testing indications

Situation	Testing plan	Clinical use
Reproductive losses with notable mosquito exposure	The veterinarian may assess JEV RT-qPCR while reviewing previous reproductive-disease findings.	Adds JEV findings to reproductive investigations involving mosquito exposure.
More weak or abnormal newborn piglets	Provide piglet findings together with the sow reproductive records.	Assesses related reproductive and piglet events using both sets of records.
Common reproductive tests have not explained the losses	Review PRRSV, PPV, PRV-gE and other results before considering JEV or GETV.	Extends assessment to JEV and GETV when losses remain unexplained.

Result interpretation

Interpret JEV nucleic acid detection with the case history and timing. This is not an antibody test and does not directly measure immunity. A negative result does not establish that pigs were never exposed or exclude other reproductive causes. Continuing abnormalities require further review with the veterinarian and laboratory.

Submission information

Include the onset, affected groups and sow parities, changes in stillbirths or weak-born piglets, recent standing water or mosquito activity, vaccination and introductions. Attach previous reproductive-disease reports. Identify the submission as an initial investigation or further assessment based on earlier findings.

Management priorities

Pause mixing and movement while unexplained losses are assessed. Arrange veterinary consultation, improve mosquito control and address standing water. Provide piglet care according to clinical need. Mosquito exposure is a historical clue. Attributing losses to JEV still requires JEV findings and clinical support, even when common tests are negative. Continue recording affected litters and reproductive performance.



11 Getah virus infection

GETV | Further investigation of reproductive and piglet problems

GETV is associated with mosquito-borne transmission. Published cases describe reproductive losses in sows and fever, tremors, diarrhea or deaths in piglets. These findings are not specific to GETV and need interpretation with other results and a veterinary examination.

Testing indications

Situation	Testing plan	Clinical use
Reproductive losses with increased mosquito activity	Consider GETV RT-qPCR after reviewing PRRSV, PPV and other available findings.	Adds GETV findings to the reproductive investigation.
Unexplained tremors or deaths in newborn piglets	Arrange prompt assessment; review GETV together with PRV-gE, JEV or other tests as the case requires.	Investigates piglet illness alongside maternal history and relevant infections.
A positive result or continuing losses	Review the clinical record and other pathogen findings before defining follow-up testing.	Assesses the clinical relevance of GETV findings to the recorded losses.

Result interpretation

A positive GETV result indicates viral genetic material in the submission. Its scope is limited to that test; farm-wide infection prevalence and causes of death require separate assessment. A negative result does not exclude other reproductive or piglet diseases. Plan testing using the farm's clinical changes and previous findings.

Submission information

Include reproductive changes, piglet ages and signs, onset, affected groups and the death trend. Describe relevant changes in mosquitoes, standing water, introductions or movement. Attach previous PRRSV, PPV, PRV-gE, JEV and other reports. Describe both the clinical presentation and the mosquito-exposure history.

Management priorities

Obtain veterinary care for affected sows and piglets while improving mosquito and standing-water management. Pause mixing of affected groups while the cause is investigated. Track affected litters, weak-born piglets and deaths. If findings do not fit the case, assess other infectious and noninfectious causes and interpret the losses using the full clinical record.



12 Porcine epidemic diarrhea

PED | Investigating watery diarrhea in piglets and other groups

PED commonly causes watery diarrhea and may include vomiting. Suckling piglets are particularly vulnerable to dehydration and death. Its presentation overlaps with TGE, PDCoV and other causes. Fecal colour and age provide clinical context; differentiation of the pathogens requires laboratory testing.

Testing indications

Situation	Testing plan	Clinical use
New unexplained diarrhea affecting a group	Select the PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR panel.	Reports each viral target separately to distinguish similar enteric presentations.
A defined PEDV investigation or follow-up	The PEDV single-target RT-qPCR may be selected with the previous report.	Provides a PEDV result for focused investigation or review of an earlier report.
Diarrhea continues or results do not fit the illness	Review the panel and assess available ETEC or C. perfringens tests with the veterinarian.	Investigates other enteric pathogens and coinfection in continuing diarrhea.

Result interpretation

A positive PEDV result detects the viral target; it does not by itself attribute every diarrhea case to PEDV. Read each target in the four-virus panel separately. One positive does not make the others positive. A fully negative panel does not exclude bacterial, parasitic, nutritional or management-related causes of diarrhea.

Submission information

Include age, onset, affected litters or groups, vomiting, reduced intake and changes in deaths. Add movement, vaccination, medication and earlier diarrhea reports. For PEDV alone, state the specific investigation or follow-up purpose, distinguishing it from an initial investigation of unexplained diarrhea.

Management priorities

Seek prompt veterinary care for dehydration and review warmth and nursing support. Avoid mixing affected groups or unnecessary movement. Antibiotics do not treat PEDV itself; treatment of concurrent bacterial disease requires veterinary assessment. Continue tracking new diarrhea, recovery and deaths, and investigate findings that remain unexplained even after a positive result.



13 Transmissible gastroenteritis

TGE | Distinguishing similar causes of enteric disease

TGE causes diarrhea at different ages, with greater losses in suckling piglets and possible vomiting or dehydration. It resembles other enteric coronavirus infections. Testing distinguishes pathogens that cannot reliably be identified by appearance.

Testing indications

Situation	Testing plan	Clinical use
Watery diarrhea in more than one age group	Select PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR.	Assesses TGEV and the other panel targets in similar diarrhea cases.
Diarrhea with substantial suckling-piglet losses	Arrange immediate veterinary assessment and four-virus testing; consider ETEC or C. perfringens.	Assesses viral findings and concurrent causes in severe piglet losses.
Follow-up after a previous TGEV result	Provide the original report and clinical changes before reassessment.	Combines follow-up findings with clinical changes to support herd management.

Result interpretation

TGEV is one target in the PEDV/TGEV/RoV-A/PDCoV panel. Other negative targets do not imply TGEV is positive. A negative panel does not exclude every enteric disease. Interpret nucleic acid findings alongside clinical recovery; a result alone does not establish complete herd recovery.

Submission information

Describe the first affected group, spread to other ages, vomiting, affected litters and changes in deaths. Include vaccination, movement, medication and earlier diarrhea results. Specify an initial investigation, review of a positive result or investigation of continuing diarrhea.

Management priorities

Address dehydration and piglet care promptly and avoid mixing sick pigs with other groups. The veterinarian should review water, feed and possible concurrent infection. One viral result does not replace a complete investigation. Decisions about regrouping or further monitoring should consider new cases, appetite, deaths and the reviewed laboratory findings together.



14 Group A rotavirus infection

RoV-A | Diarrhea in suckling and weaned pigs

Group A rotavirus can cause diarrhea, dehydration and poor growth in suckling and weaned pigs. Severity varies, and other enteric infections may occur together. The four-target RT-qPCR panel checks four enteric viruses; stool color alone cannot distinguish them.

Testing indications

Situation	Testing plan	Clinical use
Diarrhea affects several suckling litters	Request the PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR panel.	Identify detected viruses to support the differential diagnosis.
Diarrhea persists after weaning and growth slows	Request the four-target panel; add ETEC qPCR if bacterial diarrhea is suspected.	Add ETEC evidence when assessing bacterial coinfection.
Diarrhea returns after improvement	Review the earlier report and new signs with the veterinarian before retesting.	Provide pathogen findings for reassessment of recurrent diarrhea.

Result interpretation

A positive RoV-A result identifies group A rotavirus RNA. Coverage is limited to group A, and clinical relevance depends on the diarrhea history. Read each component of the panel separately; multiple positive results do not establish equal contributions to disease. A negative panel leaves other infections and husbandry factors to assess.

Submission information

Provide the production stage, onset of diarrhea, affected litters or pens, dehydration and death trends. Include recent feed changes, movements and medication. For recurrence, attach earlier reports and record when signs improved and returned.

Management priorities

Have the veterinarian address dehydration and reduced intake, then use the findings to guide management. Review warmth, drinking access, nursing and the transition at weaning. Assess recovery through new cases, appetite and growth, alongside any repeat test results.



15 Porcine deltacoronavirus infection

PDCoV | Investigating watery diarrhea

Porcine deltacoronavirus can cause watery diarrhea, dehydration and sometimes vomiting. Appetite, activity and losses need close attention in suckling pigs. Signs resemble porcine epidemic diarrhea and transmissible gastroenteritis; the four-target panel provides findings for the differential diagnosis.

Testing indications

Situation	Testing plan	Clinical use
Sudden watery diarrhea in the farrowing unit	Request the PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR panel.	Distinguish PDCoV detection from the other viruses in the panel.
A new diarrhea episode in nursery or finishing pigs	Use the onset and affected groups to plan four-target testing.	Compare viral findings across affected production stages.
Signs improve after a PDCoV positive result	Review recovery records with the veterinarian before retesting.	Add information for cases with persistent diarrhea or poor growth.

Result interpretation

A positive result identifies PDCoV RNA, which may remain detectable after clinical improvement. A repeat positive result alone does not mean disease is worsening. PEDV, TGEV, RoV-A and PDCoV are reported separately. Negative results apply only to the four viruses in the panel.

Submission information

Identify the first affected production stage and the pens subsequently involved. Describe vomiting, appetite and death trends. Include recent movements or arrivals, feed changes, treatment and earlier diarrhea reports to relate the current signs to previous findings.

Management priorities

Severe dehydration, continued refusal to eat or increasing deaths require prompt veterinary assessment. Pause mixing of the affected batch with other groups. Review hygiene and batch management. Antimicrobial treatment requires clinical grounds for bacterial infection; a positive viral result alone cannot guide drug selection.



16 Mycoplasmal pneumonia

Mhp | Persistent dry cough and slower growth

Mycoplasma hyopneumoniae infection commonly involves persistent dry cough, slower growth and widening weight differences. Mhp qPCR supports investigation of these signs in growing and finishing pigs. Marked fever, difficult breathing or rising deaths also warrant assessment for coinfections.

Testing indications

Situation	Testing plan	Clinical use
Persistent dry cough during growing or finishing	Request Mycoplasma hyopneumoniae (Mhp) qPCR.	Support the Mhp differential diagnosis in chronic coughing.
Coughing with group fever or difficult breathing	Test for Mhp; add PRRSV or swine influenza A (SIV-A) RT-qPCR according to the history.	Add evidence for PRRS or influenza A coinfection.
Cough worsens after movement, or growth remains poor	Review earlier Mhp findings, treatment and housing changes before selecting repeat tests.	Reassess the causes of persistent cough and growth loss.

Result interpretation

Mhp qPCR detects M. hyopneumoniae; coverage does not extend to every porcine Mycoplasma species. Interpret a positive result with cough duration, growth records and veterinary findings. DNA detection does not measure lung damage or provide antimicrobial susceptibility information.

Submission information

Record the production stage, cough onset, affected pens, appetite, growth, fever and deaths. Include movement, mixing, vaccination and medication history. Specify the signs that improved after intervention and those that persisted.

Management priorities

Plan treatment and vaccination changes with the veterinarian while reviewing ventilation, dust, stocking and mixing. Reassess coinfections if breathing deteriorates or deaths rise. Persistent signs help guide repeat testing; one negative result cannot establish freedom from infection throughout the group.



17 Porcine pleuropneumonia

APP | Acute breathing difficulty and sudden deaths

Actinobacillus pleuropneumoniae can cause acute breathing difficulty, fever and sudden death. Some survivors continue coughing or grow poorly. Acute respiratory episodes require prompt veterinary assessment; APP qPCR provides pathogen findings for the investigation.

Testing indications

Situation	Testing plan	Clinical use
Sudden breathing difficulty or rising deaths in growing or finishing pigs	Include Actinobacillus pleuropneumoniae (APP) qPCR in the veterinary investigation.	Support the APP differential diagnosis in acute respiratory disease.
Coughing or poor growth persists after the acute episode	Review the earlier APP result and recovery records before retesting.	Add evidence when assessing persistent respiratory signs.
Respiratory problems recur after mixing or a housing change	Test for APP; add Mhp qPCR or PRRSV RT-qPCR if coinfection is suspected.	Add findings for Mhp or PRRS virus.

Result interpretation

A positive APP result identifies bacterial DNA. Clinical relevance depends on the course of illness and veterinary findings. General APP qPCR provides neither serotype nor antimicrobial susceptibility and cannot predict illness in every carrier. Persistent breathing difficulty or deaths require assessment for other causes even after a negative result.

Submission information

Provide the onset, speed of deterioration, affected pens or batches, and trends in breathing, appetite, fever and deaths. Include mixing, movement, vaccination and treatment records. Distinguish recovered cases from those that continued to deteriorate.

Management priorities

Severe breathing difficulty and sudden deaths require prompt veterinary care. Pause mixing and movement of the affected batch and review ventilation and crowding. Select drugs using the clinical diagnosis and relevant susceptibility evidence. APP qPCR provides DNA detection results.



18 Glässer disease

HPS | Fever, lameness and neurological signs in nursery pigs

Glässer disease can cause fever, swollen joints, lameness, breathing difficulty or neurological signs in nursery pigs. The organism is now named Glaesserella parasuis; the test retains the HPS abbreviation. Healthy pigs may carry it, so positive results require clinical interpretation.

Testing indications

Situation	Testing plan	Clinical use
Fever with lameness or swollen joints in nursery pigs	Request Glaesserella parasuis (HPS) qPCR.	Provide DNA detection evidence in suspected Glässer disease.
Neurological signs or sudden deaths occur as well	The veterinarian may request HPS and Streptococcus suis qPCR together.	Support differentiation of two clinically similar bacterial infections.
HPS is detected and the investigation needs typing information	Confirm the reporting scope of the separate HPS typing service before ordering.	Add type information within the service coverage.

Result interpretation

General HPS testing detects DNA; typing distinguishes types within the service coverage. Interpret positive findings with the history and veterinary examination. Detection or a type designation alone cannot establish a virulent strain. Typing also cannot independently predict disease severity or vaccine protection.

Submission information

Describe illness in relation to weaning, movement or mixing, and identify groups with fever, lameness or neurological signs. Include illness and death trends, previous HPS or S. suis reports, vaccination, medication and the response to treatment.

Management priorities

Neurological signs, difficult breathing or rising deaths require prompt veterinary care. Pause mixing of affected groups and review temperature, ventilation and movement arrangements. Base treatment and vaccination changes on the clinical diagnosis, using detection and typing results as part of that evidence.



19 Streptococcus suis infection

S. suis | Neurological signs and joint disease in nursery pigs

Streptococcus suis can cause abnormal gait, paddling, swollen joints, lameness or sudden death in nursery pigs. Glässer disease and other conditions have similar signs. Healthy pigs may carry S. suis, so diagnosis requires linking test findings to the clinical episode.

Testing indications

Situation	Testing plan	Clinical use
New neurological signs or sudden deaths in nursery pigs	Include Streptococcus suis qPCR in the veterinary investigation.	Provide DNA detection evidence in suspected S. suis disease.
Fever, lameness or swollen joints with an unclear cause	Consider S. suis and Glaesserella parasuis (HPS) qPCR together.	Support differentiation of two clinically overlapping bacterial infections.
New cases continue after treatment or recur in another batch	Use previous findings and treatment response to guide repeat and coinfection testing.	Reassess the cause of persistent or recurrent disease.

Result interpretation

A positive S. suis result identifies bacterial DNA. It does not by itself establish invasive disease or a disease-causing serotype. Detection does not provide serotyping, virulence assessment or antimicrobial susceptibility. Relate the result to signs, veterinary findings and treatment response.

Submission information

Provide the production stage, the order in which neurological signs and lameness appeared, affected pens, appetite and death trends. Include movement, mixing, vaccination and medication history, with changes in new case numbers and existing signs after treatment.

Management priorities

Neurological signs or sudden deaths need prompt veterinary care. Support affected pigs and pause mixing. S. suis can infect people. Follow occupational protection requirements; seek medical care for illness after pig contact and disclose the contact. A poor response calls for review of the diagnosis and drug choice; persistent PCR positivity alone does not justify repeated drug changes.



20 Enterotoxigenic E. coli infection

ETEC | Watery diarrhea in suckling and weaned pigs

Enterotoxigenic Escherichia coli (ETEC) is a diagnostic consideration in suckling and weaned pigs with watery diarrhea, dehydration and reduced activity. Ordinary E. coli also occurs in normal intestinal flora. An ETEC diagnosis requires relevant detection evidence and compatible clinical signs.

Testing indications

Situation	Testing plan	Clinical use
Diarrhea with marked dehydration in suckling pigs	Request enterotoxigenic E. coli (ETEC) qPCR.	Provide ETEC findings within the scope of the test.
Diarrhea and reduced intake or growth after weaning	Test for ETEC; add the PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR panel if viral diarrhea is suspected.	Assess bacterial and viral diarrhea findings together.
Diarrhea persists or returns after medication	Review ETEC findings, treatment response, feed and drinking access before further testing.	Reassess the diagnosis and management of persistent diarrhea.

Result interpretation

Interpret ETEC results within the report's scope. Coverage must not be extended to every toxin, adhesin or form of E. coli disease. A positive result does not diagnose edema disease or provide antimicrobial susceptibility. Clinical relevance depends on the production stage, signs and veterinary findings.

Submission information

Provide age or weaning stage, diarrhea onset, affected litters or pens, dehydration and death trends. Describe nursing, feed transition, drinking access and environmental changes. Include medication records and changes in appetite and stool consistency after treatment. Attach earlier reports for recurrent cases.

Management priorities

Address dehydration and poor intake with the veterinarian while reviewing weaning management, water access and hygiene. Antimicrobial treatment needs a clinical indication, with drug choice informed by susceptibility evidence. Persistent signs also warrant assessment for viral coinfection and husbandry factors.



21 Porcine proliferative enteropathy

PPE | Lawsonia-associated diarrhea and growth loss

Lawsonia intracellularis-associated disease can cause persistent diarrhea, uneven weights and poor growth, or bloody stools, pallor and sudden deaths. Testing supports investigation of acute bleeding, chronic diarrhea and poor growth.

Testing indications

Situation	Testing plan	Clinical use
Persistent diarrhea or poor growth in late nursery or finishing pigs	Request Lawsonia intracellularis qPCR.	Provide pathogen findings in suspected proliferative enteropathy.
Bloody stools, pallor or sudden deaths	Seek prompt veterinary assessment; consider Lawsonia and Brachyspira hyodysenteriae qPCR together.	Support differentiation of two important bloody-diarrhea pathogens.
Stools improve after treatment but growth remains poor	Review earlier findings, weights and intake before retesting.	Assess enteric factors in continuing growth loss.

Result interpretation

A positive result identifies Lawsonia DNA and requires clinical interpretation. It does not measure intestinal damage or explain every growth loss. Bloody stools have other causes. Interpret negative findings with the history, veterinary examination and other test results.

Submission information

Record the order in which diarrhea and growth loss appeared, the affected batches, blood in stools, pallor and death trends. Include intake and weight records, feed changes, movements, vaccination and medication. Note previous similar episodes and their response to intervention.

Management priorities

Bloody stools, pallor or sudden deaths require timely veterinary care. For chronic problems, also review feed, water and batch management. Assess treatment response through new diarrhea cases, appetite and growth recovery. Persistent abnormalities guide the scope of further testing.



22 Swine dysentery

B. hyodysenteriae | Mucoid or bloody diarrhea and poor growth

Mucoid or bloody diarrhea, reduced intake and slower growth in late nursery or finishing pigs warrant investigation for swine dysentery. Proliferative enteropathy and other conditions can also cause blood in stools. Pathogen testing adds information that appearance alone cannot provide.

Testing indications

Situation	Testing plan	Clinical use
Mucoid or bloody diarrhea in late nursery or finishing pigs	Request <i>Brachyspira hyodysenteriae</i> qPCR.	Provide specific DNA detection evidence for <i>B. hyodysenteriae</i> .
Unexplained bloody stools, pallor or sudden deaths	The veterinarian may request <i>B. hyodysenteriae</i> and <i>Lawsonia intracellularis</i> qPCR together.	Check two important bloody-diarrhea pathogens in parallel.
Recurrent diarrhea or a new affected batch	Review earlier findings, medication and batch records before repeat or differential testing.	Reassess the cause of recurrence or disease in a new batch.

Result interpretation

This test targets *B. hyodysenteriae*; coverage does not include every *Brachyspira* species. A negative result cannot exclude all dysentery-like disease. Relate a positive finding to stool changes and veterinary findings. DNA detection provides no resistance information, so drug effectiveness requires separate assessment.

Submission information

Describe progression from diarrhea to mucus or blood, affected batches, illness duration, intake, growth and deaths. Include movement, mixing, pig arrivals, feed changes and medication. Note earlier *B. hyodysenteriae* or *Lawsonia* results and the treatment response.

Management priorities

Persistent bleeding, reduced activity or increasing deaths need prompt veterinary assessment. Pause mixing and movement of affected batches and review hygiene and management links between groups. Judge response by stools, intake, growth and new cases. Reassess the diagnosis and drug choice if disease recurs.



23 Clostridium perfringens-associated enteritis

C. perfringens | Severe diarrhea in newborn piglets

Severe diarrhea, bloody stools, rapid weakness or sudden death in newborn piglets require prompt veterinary assessment. Clostridium perfringens is one diagnostic consideration. qPCR detects its DNA; a diagnosis of clostridial enteritis still requires clinical and pathological evidence.

Testing indications

Situation	Testing plan	Clinical use
Severe diarrhea or sudden deaths in newborn piglets	Request Clostridium perfringens qPCR during veterinary assessment.	Provide DNA detection evidence in suspected clostridial enteritis.
Watery diarrhea has no clear cause	According to the signs, add ETEC qPCR or the PEDV/TGEV/RoV-A/PDCoV four-target RT-qPCR panel.	Add findings for other bacterial and viral diarrhea causes.
C. perfringens is detected but causation remains uncertain	The veterinarian reviews clinical and pathological evidence for further toxin investigation.	Assess toxin involvement; confirm further service availability separately.

Result interpretation

This test detects C. perfringens DNA. Detection alone cannot distinguish carriage from disease, establish toxin production or diagnose type C enteritis. Coverage does not extend to every toxin type. The veterinarian and laboratory must separately confirm the suitability and availability of further toxin investigation.

Submission information

Describe the timing of illness relative to birth, affected litters, blood in stools, weakness and death trends. Include sow vaccination, nursing, hygiene and medication records, along with earlier similar episodes and current enteric reports.

Management priorities

Severe diarrhea and rapid deaths make veterinary care and assessment of affected litters the priority. Review nursing, warmth and farrowing-house hygiene. Base treatment and vaccination changes on clinical, pathological and relevant test evidence.



24 Swine brucellosis

Brucella | Investigating reproductive problems

Returns to estrus, infertility, abortions, stillbirths or testicular swelling in boars warrant consideration of brucellosis. Management and other infections can cause similar signs. Brucella spp. qPCR provides genus-level DNA findings for interpretation alongside reproductive records.

Testing indications

Situation	Testing plan	Clinical use
Returns to estrus or reproductive failures increase	The veterinarian uses breeding records to plan Brucella spp. qPCR.	Add Brucella genus findings to the reproductive investigation.
Abortions, stillbirths or reproductive abnormalities in boars	Select Brucella and other reproductive tests after veterinary assessment.	Use pathogen findings in the affected batch differential diagnosis.
Brucella is detected or results conflict with clinical findings	The veterinarian and laboratory review the report and define further confirmation.	Clarify the evidence available for breeding assessment.

Result interpretation

A positive Brucella spp. result identifies DNA from this genus. It does not establish Brucella suis or a specific biovar. A negative result cannot show that an animal or herd was never infected. Clinical interpretation requires reproductive records, the course of illness and veterinary findings.

Submission information

Provide mating and return-to-estrus records, timing of failures, findings in other sows, boar abnormalities, recent introductions and previous investigations. Brucella can infect people. Follow occupational protection requirements; seek medical care after suspected exposure or illness following animal contact, and disclose the contact history.

Management priorities

During veterinary assessment, review breeding, mixing and movement plans for affected animals, including relevant pigs that appear healthy. Swine brucellosis has no reliable curative drug regimen. Subsequent herd management should follow the diagnosis and veterinary assessment.



Additional diagnostics: bacteria and feed toxins

16S rRNA sequencing | AFs, ZEN and DON testing

Bacterial 16S rRNA gene sequencing supports bacterial identification. AFs/ZEN/DON testing assesses three feed mycotoxins. Select the service according to the missing evidence, alongside clinical and feeding records.

Testing indications

Situation	Testing plan	Clinical use
Bacterial identity remains uncertain after routine testing	Confirm the suitability of 16S rRNA gene sequencing with the laboratory.	Identify bacteria to the genus or species supported by the report.
Poor intake after a feed batch change	Request AFs/ZEN/DON testing and relate DON findings to feeding history.	Assess DON as a possible contributor to reduced intake.
Vulval swelling, estrogen-like signs or reproductive problems	Interpret ZEN findings from the panel with reproductive records.	Assess feed risk associated with zearalenone.
Poor growth with suspected liver injury	Interpret AFs findings from the panel with veterinary findings.	Assess feed risk associated with aflatoxins.

Result interpretation

16S identifies bacteria, without viral testing or antimicrobial susceptibility. Closely related bacteria may remain unresolved at species level. The panel covers aflatoxins (AFs), zearalenone (ZEN) and deoxynivalenol (DON); other feed hazards need separate assessment. Interpret toxin values with actual exposure and clinical findings; detection alone does not establish causation.

Submission information

For 16S, provide earlier reports and the bacterial identity that needs clarification. For toxin testing, provide the feed batch, start of use, affected groups, intake and reproductive changes. Record signs in other groups receiving the same feed.

Management priorities

Review feed and disease findings with the veterinarian and nutrition adviser. Antibiotics do not resolve toxin problems. A 16S identification still requires clinical interpretation before treatment. Additional tests should address gaps in the evidence.



Submission and use of results

Complete herd records support test selection and interpretation

Submissions may support incoming-pig assessments, disease investigations or review of earlier results. Clear group identities and case histories help the laboratory select suitable tests and connect results to the correct pigs. Confirm material requirements and delivery arrangements before submission.

Submission information

Information	Details to include	Use
Identity and links	Farm, house and pig or group ID; stage; linked sow, litter or transfer group.	Connects results to the correct pigs and keeps groups distinct.
Illness history	Onset, signs, extent, deaths and recovery; earlier reports.	Establishes the course of illness and identifies discrepancies between results and clinical findings.
Recent changes	Purchases, mixing, movements, vaccination, medication, feed and contact history.	Provides context for interpretation and contact investigations.
Contacts and IDs	Veterinarian and farm contact; matching IDs on labels, lists and forms.	Allows clarification of missing information, unsuitable material or further review.

Report interpretation

Check the group identity, date, test and result. Diagnosis combines clinical findings with other investigations; nucleic acid detection alone does not establish the cause of every sign. A negative result applies to the scope of that test. Invalid or inconclusive results must not be treated as negative.

Comparison of results

Compare results using compatible methods, material types, groups and time points. Ct depends on the method and material and requires test-specific interpretation. No universal Ct threshold defines severity, infectiousness or movement clearance across pathogens or laboratories.

Follow-up arrangements

Use the report and veterinary assessment to plan further testing and management. Record the actions, responsible person and subsequent herd changes. Availability and arrangements for culture, susceptibility testing, pathology or antibody testing require separate confirmation.