

SAMPLE COLLECTION GUIDE FOR THE DETECTION OF POULTRY RESPIRATORY PATHOGENS BY PCR



MISSISSIPPI STATE UNIVERSITY™
COLLEGE OF VETERINARY MEDICINE
Poultry Research and Diagnostic Laboratory

DISEASE	RECOMMENDED SAMPLE FOR PCR ^{ab}	SUBMIT TO LAB	SAMPLE POOL	RECOMMENDED BIRDS PER HOUSE
Avian Influenza (AI) & Newcastle Disease (ND)	Oropharyngeal / Tracheal swabs in BHI	Recommended sample	Up to 5 swabs in at least 3 ml BHI OR Up to 11 swabs in at least 5 ml BHI	Minimum 11 birds per house. If high mortality: Minimum two, 11 swab pools.
Infectious Laryngotracheitis (ILT)	Tracheal swabs in BHI	Recommended sample OR Tracheas for sampling ^c	Up to 5 swabs in at least 3 ml BHI OR Minimum 10 full-length tracheas	Minimum 10 birds per house.
Avian Metapneumovirus (aMPV)	Sinus+Nasal turbinate / Tracheal / Oropharyngeal / Choanal cleft swabs in BHI	Recommended sample OR Heads with full-length necks for sampling ^c OR Tracheas for sampling ^c	Up to 5 swabs in at least 3 ml BHI OR Up to 11 swabs in at least 5 ml BHI	Minimum 10 birds per house. Sample as soon as first clinical signs noticed. Sample affected and unaffected houses.
Infectious Bronchitis (IB)	Tracheal / Oropharyngeal / Choanal cleft swabs in BHI OR Fresh tissue (Tracheas, Cecal tonsils, Kidneys)	Recommended sample	Up to 5 swabs in at least 3 ml BHI OR Up to 11 swabs in at least 5 ml BHI Pool fresh tissues in separate Whirl-Pak® or Ziploc® bags	Minimum 10 birds per house.
<i>M. gallisepticum</i> (MG) & <i>M. synoviae</i> (MS)	Tracheal / Choanal cleft swabs in BHI without antibiotics OR Media-free transport swabs	Recommended sample	Up to 5 swabs in at least 3 ml BHI without antibiotics Media-free transport swabs pooled at lab	Minimum 30 birds per house: 10 front, 10 middle, 10 back of house

^aUse synthetic or semi-synthetic swabs (e.g. polyester, rayon, nylon) with a plastic handle and a flocked or spun head. Remove swab from BHI tube after inoculation and safely dispose of swabs.

^bPackage samples immediately after collection with frozen cold packs. Maintain the cold chain (4°C) until arrival at the lab the same day or next morning.

^cLab sampling fee charged.