Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
								Label	ID	Description/Guidance
	Colour Code Legend									
	field name in yellow = required					**IMPORTANT:** Only labels and/or IDs will be deprecated, always with replacement version provided. If a term changes in its meaning, a new term will be created.				
	field name in purple = recommended									
	field name in white = optional									
Sample collection and processing		GENEPIO:0001268								
Sample collection and processing	sample_collector_sample_ID	GENEPIO:0001123	The user-defined name for the sample.	The sample_ID should represent the identifier assigned to the sample at time of collection, for which all the descriptive information applies. If the original sample_ID is unknown or cannot be provided, leave blank or provide a null value.	ABCD123			3.0.0	3.0.0	3.0.0
Sample collection and processing	alternative_sample_ID	GENEPIO:0100427	An alternative sample_ID assigned to the sample by another organization.	Alternative identifiers assigned to the sample should be tracked along with original IDs to establish chain of custody. Alternative sample IDs should be provided in the in a prescribed format which consists of the ID followed by square brackets (no space in between the ID and bracket) containing the short form of ID provider's agency name i.e. ID[short organization code]. Agency short forms include the following: Public Health Agency of Canada: PHAC Canadian Food Inspection Agency: CFIA Agriculture and Agri-Food Canada: AAFC Fisheries and Oceans Canada: DFO Environment and Climate Change Canada: ECCC Health Canada: HC Multiple identifiers can be provided and separated by semi-colons. If the information is unknown or cannot be provided, leave blank or provide a null value.	ABCD1234[PHAC]; 12345rev[CFIA]			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collected_by	GENEPIO:0001153	The name of the organization with which the sample collector is affiliated.	Provide the name of the agency, organization or institution that collected the sample in full (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Public Health Agency of Canada (PHAC) [GENEPIO:0100551]			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collected_by_laboratory_name	GENEPIO:0100428	The specific laboratory affiliation of the sample collector.	Provide the name of the specific laboratory that collected the sample (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Topp Lab			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collection_project_name	GENEPIO:0100429	The name of the project/initiative/program for which the sample was collected.	Provide the name of the project and/or the project ID here. If the information is unknown or cannot be provided, leave blank or provide a null value.	Watershed Project (HA-120)			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_plan_name	GENEPIO:0100430	The name of the study design for a surveillance project.	Provide the name of the sample plan used for sample collection. If the information is unknown or cannot be provided, leave blank or provide a null value.	National Microbiological Baseline Study in Broiler Chicken			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_plan_ID	GENEPIO:0100431	The identifier of the study design for a surveillance project.	Provide the identifier of the sample plan used for sample collection. If the information is unknown or cannot be provided, leave blank or provide a null value.	2001_M205			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collector_contact_name	GENEPIO:0100432	The name or job title of the contact responsible for follow-up regarding the sample.	Provide the name of an individual or their job title. As personnel turnover may render the contact's name obsolete, it is more preferable to provide a job title for ensuring accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	Enterics Lab Manager			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collector_contact_email	GENEPIO:0001156	The email address of the contact responsible for follow-up regarding the sample.	Provide the email associated with the listed contact. As personnel turnover may render an individual's email obsolete, it is more preferable to provide an address for a position or lab, to ensure accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	johnnyblogs@lab.ca			3.0.0	3.0.0	3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Sample collection and processing	purpose_of_sampling	GENEPIO:0001198	The reason that the sample was collected.	The reason a sample was collected may provide information about potential biases in sampling strategy. Provide the purpose of sampling from the picklist in the template. Most likely, the sample was collected for Diagnostic testing. The reason why a sample was originally collected may differ from the reason why it was selected for sequencing, which should be indicated in the "purpose of sequencing" field.	Surveillance [GENEPIO:0100004]			3.0.0	3.0.0	3.0.0
Sample collection and processing	presampling_activity	GENEPIO:0100433	The activities or variables introduced upstream of sample collection that may affect the sample collected.	If there was presampling activity that would affect the sample prior to collection (this is different than sample processing which happens after the sample is collected), provide the experimental activities by selecting one or more values from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	Antimicrobial pre-treatment [GENEPIO:0100537]			3.0.0	3.0.0	3.0.0
Sample collection and processing	presampling_activity_details	GENEPIO:0100434	The details of the activities or variables introduced upstream of sample collection that may affect the sample collected.	Briefly describe the presampling activity details using free text.	Chicken feed containing X amount of novobiocin was fed to chickens for 72 hours prior to collection of litter.			3.0.0	3.0.0	3.0.0
Sample collection and processing	specimen_processing	GENEPIO:0100435	The processing applied to samples post-collection, prior to further testing, characterization, or isolation procedures.	Provide the sample processing information by selecting a value from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	Samples pooled [OBI:0600016]			3.0.0	3.0.0	3.0.0
Sample collection and processing	geo_loc_name (country)	GENEPIO:0001181	The country of origin of the sample.	Provide the name of the country where the sample was collected. Use the controlled vocabulary provided in the template pick list. If the information is unknown or cannot be provided, provide a null value.	Canada [GAZ:00002560]			3.0.0	3.0.0	3.0.0
Sample collection and processing	geo_loc_name (state/province/region)	GENEPIO:0001185	The state/province/territory of origin of the sample.	Provide the name of the province/state/region where the sample was collected. If the information is unknown or cannot be provided, provide a null value.	British Columbia [GAZ:00002562]			3.0.0	3.0.0	3.0.0
Sample collection and processing	geo_loc_name (site)	GENEPIO:0100436	The name of a specific geographical location e.g. Credit River (rather than river).	Provide the name of the specific geographical site using a specific noun (a word that names a certain place, thing).	Credit River			3.0.0	3.0.0	3.0.0
Sample collection and processing	food_product_origin geo_loc_name (country)	GENEPIO:0100437	The country of origin of a food product.	If a food product was sampled and the food product was manufactured outside of Canada, provide the name of the country where the food product originated by selecting a value from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	United States of America [GAZ:00002459]			3.0.0	3.0.0	3.0.0
Sample collection and processing	host_origin geo_loc_name (country)	GENEPIO:0100438	The country of origin of the host.	If a sample is from a human or animal host that originated from outside of Canada, provide the the name of the country where the host originated by selecting a value from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	South Africa [GAZ:00001094]			3.0.0	3.0.0	3.0.0
Sample collection and processing	geo_loc latitude	GENEPIO:0100309	The latitude coordinates of the geographical location of sample collection.	If known, provide the degrees latitude. Do NOT simply provide latitude of the institution if this is not where the sample was collected, nor the centre of the city/region where the sample was collected as this falsely implicates an existing geographical location and creates data inaccuracies. If the information is unknown or cannot be provided, leave blank or provide a null value.	38.98 N			3.0.0	3.0.0	3.0.0
Sample collection and processing	geo_loc longitude	GENEPIO:0100310	The longitude coordinates of the geographical location of sample collection.	If known, provide the degrees longitude. Do NOT simply provide longitude of the institution if this is not where the sample was collected, nor the centre of the city/region where the sample was collected as this falsely implicates an existing geographical location and creates data inaccuracies. If the information is unknown or cannot be provided, leave blank or provide a null value.	77.11 W			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collection_date	GENEPIO:0001174	The date on which the sample was collected.	Provide the date according to the ISO 8601 standard "YYYY-MM-DD", "YYYY-MM" or "YYYY".	2020-10-30			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_collection_date_precision	GENEPIO:0001177	The precision to which the "sample collection date" was provided.	Provide the precision of granularity to the "day", "month", or "year" for the date provided in the "sample collection date" field. The "sample collection date" will be truncated to the precision specified upon export; "day" for "YYYY-MM-DD", "month" for "YYYY-MM", or "year" for "YYYY".	day [UO:0000033]			7.6.4	7.6.4	7.6.4

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Sample collection and processing	sample_received_date	GENEPIO:0001179	The date on which the sample was received.	Provide the date according to the ISO 8601 standard "YYYY-MM-DD", "YYYY-MM" or "YYYY".	2020-11-15			3.0.0	3.0.0	3.0.0
Sample collection and processing	original_sample_description	GENEPIO:0100439	The original sample description provided by the sample collector.	Provide the sample description provided by the original sample collector. The original description is useful as it may provide further details, or can be used to clarify higher level classifications.	RTE Prosciutto from deli			3.0.0	3.0.0	3.0.0
Sample collection and processing	environmental_site	GENEPIO:0001232	An environmental location may describe a site in the natural or built environment e.g. hospital, wet market, bat cave.	If applicable, select the standardized term and ontology ID for the environmental site from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Poultry hatchery [ENVO:01001874]			3.0.0	3.0.0	3.0.0
Sample collection and processing	water_depth	GENEPIO:0100440	The depth of some water.	Provide the numerical depth only of water only (without units).	5			3.0.0	3.0.0	9.10.10
Sample collection and processing	water_depth_units	GENEPIO:0101025	The units of measurement for water depth.	Provide the units of measurement for which the depth was recorded.	m			9.10.10	9.10.10	9.10.10
Sample collection and processing	sediment_depth	GENEPIO:0100697	The depth of some sediment.	Provide the numerical depth only of the sediment (without units).	2			7.6.4	7.6.4	9.10.10
Sample collection and processing	sediment_depth_units	GENEPIO:0101026	The units of measurement for sedi	Provide the units of measurement for which the depth was recorded.	m			9.10.10	9.10.10	9.10.10
Sample collection and processing	air_temperature	GENEPIO:0100441	The temperature of some air.	Provide the numerical value for the temperature of the air (without units).	25			3.0.0	3.0.0	9.10.10
Sample collection and processing	air_temperature_units	GENEPIO:0101027	The units of measurement for air temperature.	Provide the units of measurement for which the temperature was recorded.	celsius			9.10.10	9.10.10	9.10.10
Sample collection and processing	water_temperature	GENEPIO:0100698	The temperature of some water.	Provide the numerical value for the temperature of the water (without units).	4			7.6.4	7.6.4	9.10.10
Sample collection and processing	water_temperature_units	GENEPIO:0101028	The units of measurement for water temperature.	Provide the units of measurement for which the temperature was recorded.	celsius			9.10.10	9.10.10	9.10.10
Sample collection and processing	weather_type	GENEPIO:0100442	The state of the atmosphere at a place and time as regards heat, dryness, sunshine, wind, rain, etc.	Provide the weather conditions at the time of sample collection.	Rain [ENVO:01001564]			3.0.0	3.0.0	3.0.0
Sample collection and processing	available_data_types	GENEPIO:0100690	The type of data that is available, that may or may not require permission to access.	This field provides information about additional data types that are available that may provide context for interpretation of the sequence data. Provide a term from the picklist for additional data types that are available. Additional data types may require special permission to access. Contact the data provider for more information.	Total coliform count data			3.0.0	3.0.0	3.0.0
Sample collection and processing	available_data_type_details	GENEPIO:0101023	Detailed information regarding other available data types.	Use this field to provide free text details describing other available data types that may provide context for interpreting genomic sequence data.	Pooled metagenomes containing extended spectrum beta-lactamase (ESBL) bacteria			9.10.10	9.10.10	9.10.10
Sample collection and processing	animal_or_plant_population	GENEPIO:0100443	The type of animal or plant population inhabiting an area.	This field should be used when a sample is taken from an environmental location inhabited by many individuals of a specific type, rather than describing a sample taken from one particular host. If applicable, provide the standardized term and ontology ID for the animal or plant population name. The standardized term can be sourced from this look-up service: https://www.ebi.ac.uk/ols/ontologies/genepio. If not applicable, leave blank.	Turkey [NCBITaxon:9103]			3.0.0	3.0.0	3.0.0
Sample collection and processing	environmental_material	GENEPIO:0001223	A substance obtained from the natural or man-made environment e.g. soil, water, sewage, door handle, bed handrail, face mask.	If applicable, select the standardized term and ontology ID for the environmental material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Soil [ENVO:00001998]; Water [CHEBI:15377]; Wastewater [ENVO:00002001]; Broom [ENVO:03501377]			3.0.0	3.0.0	3.0.0
Sample collection and processing	anatomical_material	GENEPIO:0001211	A substance obtained from an anatomical part of an organism e.g. tissue, blood.	An anatomical material is a substance taken from the body. If applicable, select the standardized term and ontology ID for the anatomical material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Tissue [UBERON:0000479]; Blood [UBERON:0000178]			3.0.0	3.0.0	3.0.0
Sample collection and processing	body_product	GENEPIO:0001216	A substance excreted/secreted from an organism e.g. feces, urine, sweat.	A body product is a substance produced by the body but meant to be excreted/secreted (i.e. not part of the body). If applicable, select the standardized term and ontology ID for the body product from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Feces [UBERON:0001988]; Urine [UBERON:0001088]			3.0.0	3.0.0	3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking Label	ID	Description/Guidance
	Colour Code Legend									
Sample collection and processing	anatomical_part	GENEPIO:0001214	An anatomical part of an organism e.g. oropharynx.	An anatomical part is a structure or location in the body. If applicable, select the standardized term and ontology ID for the anatomical material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Snout [UBERON:0006333]			3.0.0	3.0.0	3.0.0
Sample collection and processing	anatomical_region	GENEPIO:0100700	A 3D region in space without well-defined compartmental boundaries.	This field captures more granular spatial information on a host anatomical part e.g. dorso-lateral region vs back. Select a term from the picklist.	Dorso-lateral region [BSPO:0000080]			7.6.4	7.6.4	7.6.4
Sample collection and processing	food_product	GENEPIO:0100444	A material consumed and digested for nutritional value or enjoyment.	This field includes animal feed. If applicable, select the standardized term and ontology ID for the anatomical material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Feather meal [FOODON:00003927]; Bone meal [ENVO:02000054]; Chicken breast [FOODON:00002703]			3.0.0	3.0.0	3.0.0
Sample collection and processing	food_product_properties	GENEPIO:0100445	Any characteristic of the food product pertaining to its state, processing, a label claim, or implications for consumers.	Provide any characteristics of the food product including whether it has been cooked, processed, preserved, any known information about its state (e.g. raw, ready-to-eat), any known information about its containment (e.g. canned), and any information about a label claim (e.g. organic, fat-free).	Food (chopped) [FOODON:00002777]; Ready-to-eat (RTE) [FOODON:03316636]			3.0.0	3.0.0	3.0.0
Sample collection and processing	animal_source_of_food	GENEPIO:0100446	The animal from which the food product was derived.	Provide the common name of the animal. If not applicable, leave blank. Multiple entries can be provided, separated by a comma.	Chicken [NCBITaxon:9031]			3.0.0	3.0.0	3.0.0
Sample collection and processing	food_product_production_stream	GENEPIO:0100699	A production pathway incorporating the processes, material entities (e.g. equipment, animals, locations), and conditions that participate in the generation of a food commodity.	Provide the name of the agricultural production stream from the picklist.	Beef cattle production stream [FOODON:03000452]	production_stream		8.8.7	7.6.4	8.8.7
Sample collection and processing	sample_storage_method	GENEPIO:0100448	A specification of the way that a specimen is or was stored.	Provide a description of how the same was stored.	Frozen at -20C			3.0.0	3.0.0	3.0.0
Sample collection and processing	sample_storage_medium	GENEPIO:0100449	The material or matrix in which a sample is stored.	Provide a description of the material or matrix used to store the sample.	PBS + 20% glycerol			3.0.0	3.0.0	3.0.0
Sample collection and processing	collection_device	GENEPIO:0001234	The instrument or container used to collect the sample e.g. swab.	This field includes animal feed. If applicable, select the standardized term and ontology ID for the anatomical material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Drag swab [OBI:0002822]			3.0.0	3.0.0	3.0.0
Sample collection and processing	collection_method	GENEPIO:0001241	The process used to collect the sample e.g. phlebotomy, necropsy.	If applicable, provide the standardized term and ontology ID for the anatomical material from the picklist provided. Multiple values can be provided, separated by a semi-colon.	Rinsing for specimen collection [GENEPIO_0002116]			3.0.0	3.0.0	3.0.0
Sample collection and processing	food_packaging	GENEPIO:0100447	The type of packaging used to contain a food product.	If known, provide information regarding how the food product was packaged.	Plastic tray or pan [FOODON:03490126]			3.0.0	3.0.0	3.0.0
Sample collection and processing	food_quality_date	GENEPIO:0100615	A date recommended for the use of a product while at peak quality, this date is not a reflection of safety unless used on infant formula.	This date is typically labeled on a food product as "best if used by", best by", "use by", or "freeze by" e.g. 5/24/2020. If the date is known, leave blank or provide a null value.	2020-05-25			6.4.2	6.4.2	6.4.2
Sample collection and processing	food_packaging_date	GENEPIO:0100616	A food product's packaging date as marked by a food manufacturer or retailer.	The packaging date should not be confused with, nor replaced by a Best Before date or other food quality date. If the date is known, leave blank or provide a null value.	2020-05-25			6.4.2	6.4.2	6.4.2
Host information		GENEPIO:0001268								
Host information	host (common name)	GENEPIO:0001386	The commonly used name of the host.	If the sample is directly from a host, either a common or scientific name must be provided (although both can be included, if known). If known, provide the common name.	Cow [NCBITaxon:9913]; Chicken [NCBITaxon:9913], Human [NCBITaxon:9606]			3.0.0	3.0.0	3.0.0
Host information	host (scientific name)	GENEPIO:0001387	The taxonomic, or scientific name of the host.	If the sample is directly from a host, either a common or scientific name must be provided (although both can be included, if known). If known, select the scientific name from the picklist provided.	Bos taurus [NCBITaxon:9913]; Homo sapiens [NCBITaxon:9103]			3.0.0	3.0.0	3.0.0
Host information	host (ecotype)	GENEPIO:0100450	The biotype resulting from selection in a particular habitat, e.g. the A. thaliana Ecotype Ler.	Provide the name of the ecotype of the host organism.	Sea ecotype			3.0.0	3.0.0	3.0.0
Host information	host (breed)	GENEPIO:0100451	A breed is a specific group of domestic animals or plants having homogeneous appearance, homogeneous behavior, and other characteristics that distinguish it from other animals or plants of the same species and that were arrived at through selective breeding.	Provide the name of the breed of the host organism.	Holstein			3.0.0	3.0.0	3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Host information	host (food production name)	GENEPIO:0100452	The name of the host at a certain stage of food production, which may depend on its age or stage of sexual maturity.	Select the host's food production name from the pick list.	Calf [FOODON:03411349]			3.0.0	3.0.0	3.0.0
Host information	host_age_bin	GENEPIO:0001394	Age of host at the time of sampling, expressed as an age group.	Select the corresponding host age bin from the pick list provided in the template. If not available, provide a null value or leave blank.	First summer [GENEPIO:0100685]			7.6.4	7.6.4	7.6.4
Host information	host_disease	GENEPIO:0001391	The name of the disease experienced by the host.	This field is only required if the Pathogen.cl package was selected. If the host was sick, provide the name of the disease.The standardized term can be sourced from this look-up service: https://www.ebi.ac.uk/ols/ontologies/doid If the disease is not known, put "missing".	mastitis, gastroenteritis			3.0.0	3.0.0	3.0.0
Strain and isolation information		GENEPIO:0100453								
Strain and isolation information	microbiological_method	GENEPIO:0100454	The laboratory method used to grow, prepare, and/or isolate the microbial isolate.	Provide the name and version number of the microbiological method. The ID of the method is also acceptable if the ID can be linked to the laboratory that created the procedure.	MFHPB-30			3.0.0	3.0.0	3.0.0
Strain and isolation information	strain	GENEPIO:0100455	The strain identifier.	A population or type of organisms that is genetically different from others of the same species and possessing a set of defined characteristics. If the isolate represents or is derived from, a lab reference strain or strain from a type culture collection, provide the strain identifier.	K12			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolate_ID	GENEPIO:0001644	Identifier of the specific isolate.	Provide the isolate_ID created by the lab that first isolated the isolate (i.e. the original isolate ID). If the information is unknown or cannot be provided, leave blank or provide a null value. If only an alternate isolate ID is known (e.g. the ID from your lab, if your lab did not isolate the isolate from the original sample), make asure to include it in the alternative_isolate_ID field.	SA20131043			3.0.0	3.0.0	3.0.0
Strain and isolation information	alternative_isolate_ID	GENEPIO:0100457	An alternative isolate_ID assigned to the isolate by another organization.	Alternative isolate IDs should be provided in the in a prescribed format which consists of the ID followed by square brackets (no space in between the ID and bracket) containing the short form of ID provider's agency name i.e. ID[short organization code]. Agency short forms include the following: Public Health Agency of Canada: PHAC Canadian Food Inspection Agency: CFIA Agriculture and Agri-Food Canada: AAFC Fisheries and Oceans Canada: DFO Environment and Climate Change Canada: ECCC Health Canada: HC An example of a properly formatted alternative_isolate_identifier would be e.g. XYZ4567[CFIA] Multiple alternative isolate IDs can be provided, separated by semi-colons.	GHIF3456[PHAC]; QWICK222[CFIA]			3.0.0	3.0.0	3.0.0
Strain and isolation information	progeny_isolate_ID	GENEPIO:0100458	The identifier assigned to a progenitor isolate derived from an isolate that was directly obtained from a sample.	If your sequence data pertains to progeny of an original isolate, provide the progeny_isolate_ID.	SUB_ON_1526			3.0.0	3.0.0	3.0.0
Strain and isolation information	IRIDA_isolate_ID	GENEPIO:0100459	The identifier of the isolate in the IRIDA platform.	Provide the "sample ID" used to track information linked to the isolate in IRIDA. IRIDA sample IDs should be unqiue to avoid ID clash. This is very important in large Projects, especially when samples are shared from different organizations. Download the IRIDA sample ID and add it to the sample data in your spreadsheet as part of good data management practices.	GRDI_LL_12345			3.0.0	3.0.0	3.0.0
Strain and isolation information	IRIDA_project_ID	GENEPIO:0100460	The identifier of the Project in the iRIDA platform.	Provide the IRIDA "project ID".	666			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolated_by	GENEPIO:0100461	The name of the agency, organization or institution with which the individual who performed the isolation procedure is affiliated.	Provide the name of the agency, organization or institution that isolated the original isolate in full (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Public Health Agency of Canada (PHAC) [GENEPIO:0100551]			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolated_by_laboratory_name	GENEPIO:0100462	The specific laboratory affiliation of the individual who performed the isolation procedure.	Provide name of the specific laboratory that that isolated the original isolate (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Topp Lab			3.0.0	3.0.0	3.0.0

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	Colour Code Legend							Label	ID	Description/Guidance
Strain and isolation information	isolated_by_contact_name	GENEPIO:0100463	The name or title of the contact responsible for follow-up regarding the isolate.	Provide the name of an individual or their job title. As personnel turnover may render the contact's name obsolete, it is prefereable to provide a job title for ensuring accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	Enterics Lab Manager			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolated_by_contact_email	GENEPIO:0100464	The email address of the contact responsible for follow-up regarding the isolate.	Provide the email associated with the listed contact. As personnel turnover may render an individual's email obsolete, it is more prefereable to provide an address for a position or lab, to ensure accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	enterics@lab.ca			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolation_date	GENEPIO:0100465	The date on which the isolate was isolated from a sample.	Provide the date according to the ISO 8601 standard "YYYY-MM-DD", "YYYY-MM" or "YYYY".	2020-10-30			3.0.0	3.0.0	3.0.0
Strain and isolation information	isolate_received_date	GENEPIO:0100466	The date on which the isolate was received by the laboratory.	Provide the date according to the ISO 8601 standard "YYYY-MM-DD", "YYYY-MM" or "YYYY".	2020-11-15			3.0.0	3.0.0	3.0.0
Strain and isolation information	organism	GENEPIO:0001191	Taxonomic name of the organism.	Put the genus and species (and subspecies if applicable) of the bacteria, if known. The standardized term can be sourced from this look-up service: https://www.ebi.ac.uk/ols/ontologies/ncbitaxon.	Salmonella enterica subsp. enterica [NCBITaxon:59201]			3.0.0	3.0.0	3.0.0
Strain and isolation information	taxonomic_identification_process	GENEPIO:0100583	The type of planned process by which an organismal entity is associated with a taxon or taxa.	Provide the type of method used to determine the taxonomic identity of the organism by selecting a value from the pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	PCR assay [OBI:0002740]			4.2.1	4.2.1	4.2.1
Strain and isolation information	taxonomic_identification_process_details	GENEPIO:0100584	The details of the process used to determine the taxonomic identification of an organism.	Briefly describe the taxonomic identifification method details using free text.	Biolog instrument			4.2.1	4.2.1	4.2.1
Strain and isolation information	serovar	GENEPIO:0100467	The serovar of the organism.	Only include this information if it has been determined by traditional serological methods or a validated in silico prediction tool e.g. SISTR.	Heidelberg			3.0.0	3.0.0	3.0.0
Strain and isolation information	serotyping_method	GENEPIO:0100468	The method used to determine the serovar.	If the serovar was determined via traditional serotyping methods, put "Traditional serotyping". If the serovar was determined via in silico methods, provide the name and version number of the software.	SISTR 1.0.1			3.0.0	3.0.0	3.0.0
Strain and isolation information	phagetype	GENEPIO:0100469	The phagetype of the organism.	Provide if known. If unknown, put "missing".	47			3.0.0	3.0.0	3.0.0
Sequence information		GENEPIO:0001441								
Sequence information	library_ID	GENEPIO:0001448	The user-specified identifier for the library prepared for sequencing.	Every "library ID" from a single submitter must be unique. It can have any format, but we suggest that you make it concise, unique and consistent within your lab, and as informative as possible.	LS_2010_NP_123446			3.0.0	3.0.0	3.0.0
Sequence information	sequenced_by	GENEPIO:0100416	The name of the agency, organization or institution responsible for sequencing the isolate's genome.	Provide the name of the agency, organization or institution that performed the sequencing in full (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Public Health Agency of Canada (PHAC) [GENEPIO:0100551]			3.0.0	3.0.0	3.0.0
Sequence information	sequenced_by_laboratory_name	GENEPIO:0100470	The specific laboratory affiliation of the responsible for sequencing the isolate's genome.	Provide the name of the specific laboratory that that performed the sequencing in full (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Topp Lab			3.0.0	3.0.0	3.0.0
Sequence information	sequenced_by_contact_name	GENEPIO:0100471	The name or title of the contact responsible for follow-up regarding the sequence.	Provide the name of an individual or their job title. As personnel turnover may render the contact's name obsolete, it is more prefereable to provide a job title for ensuring accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	Enterics Lab Manager			3.0.0	3.0.0	3.0.0
Sequence information	sequenced_by_contact_email	GENEPIO:0100422	The email address of the contact responsible for follow-up regarding the sequence.	Provide the email associated with the listed contact. As personnel turnover may render an individual's email obsolete, it is more prefereable to provide an address for a position or lab, to ensure accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	enterics@lab.ca			3.0.0	3.0.0	3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Sequence information	purpose_of_sequencing	GENEPIO:0001445	The reason that the sample was sequenced.	Provide the reason for sequencing by selecting a value from the following pick list: Diagnostic testing, Surveillance, Monitoring, Clinical trial, Field experiment, Environmental testing. If the information is unknown or cannot be provided, leave blank or provide a null value.	Research [GENEPIO:0100003]			3.0.0	3.0.0	3.0.0
Sequence information	sequencing_project_name	GENEPIO:0100472	The name of the project/initiative/program for which sequencing was performed.	Provide the name of the project and/or the project ID here. If the information is unknown or cannot be provided, leave blank or provide a null value.	AMR-GRDI (PA-1356)			3.0.0	3.0.0	3.0.0
Sequence information	sequencing_platform	GENEPIO:0100473	The platform technology used to perform the sequencing.	Provide the name of the company that created the sequencing instrument by selecting a value from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	Illumina [GENEPIO:0001923]			3.0.0	3.0.0	3.0.0
Sequence information	sequencing_instrument	GENEPIO:0001452	The model of the sequencing instrument used.	Provide the model sequencing instrument by selecting a value from the template pick list. If the information is unknown or cannot be provided, leave blank or provide a null value.	Illumina HiSeq 2500 [GENEPIO:0100117]			3.0.0	3.0.0	3.0.0
Sequence information	library_preparation_kit	GENEPIO:0001450	The name of the DNA library preparation kit used to generate the library being sequenced.	Provide the name of the library preparation kit used.	Nextera XT			3.0.0	3.0.0	3.0.0
Sequence information	sequencing_protocol	GENEPIO:0001454	The protocol or method used for sequencing.	Provide the name and version of the procedure or protocol used for sequencing. You can also provide a link to a protocol online.	https://www.protocols.io/view/ncov-2019-sequencing-protocol-bbmuik6w?version_warning=no			3.0.0	3.0.0	3.0.0
Sequence information	r1_fastq_filename	GENEPIO:0001476	The user-specified filename of the r1 FASTQ file.	Provide the r1 FASTQ filename.	ABC123_S1_L001_R1_001.fastq.gz			3.0.0	3.0.0	3.0.0
Sequence information	r2_fastq_filename	GENEPIO:0001477	The user-specified filename of the r2 FASTQ file.	Provide the r2 FASTQ filename.	ABC123_S1_L001_R2_001.fastq.gz			3.0.0	3.0.0	3.0.0
Sequence information	fast5_filename	GENEPIO:0001480	The user-specified filename of the FAST5 file.	Provide the FAST5 filename.	batch1a_sequences.fast5			3.0.0	3.0.0	3.0.0
Sequence information	assembly_filename	GENEPIO:0001461	The user-defined filename of the FASTA file.	Provide the FASTA filename.	pathogenassembly123.fasta			3.0.0	3.0.0	3.0.0
Public repository information		GENEPIO:0100477								
Public repository information	sequence_submitted_by	GENEPIO:0001159	The name of the agency that submitted the sequence to a database.	The name of the agency should be written out in full, (with minor exceptions) and be consistent across multiple submissions. If submitting specimens rather than sequencing data, please put the "National Microbiology Laboratory (NML)".	Environment and Climate Change Canada (EC) [GENEPIO:0100555]			3.0.0	3.0.0	3.0.0
Public repository information	sequence_submitted_by_contact_name	GENEPIO:0100474	The name or title of the contact responsible for follow-up regarding the submission of the sequence to a repository or database.	Provide the name of an individual or their job title. As personnel turnover may render the contact's name obsolete, it is preferable to provide a job title for ensuring accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	Enterics Lab Manager			3.0.0	3.0.0	3.0.0
Public repository information	sequence_submitted_by_contact_email	GENEPIO:0001165	The email address of the agency responsible for submission of the sequence.	The email address can represent a specific individual or lab e.g. johnnyblogs@lab.ca, or RespLab@lab.ca	RespLab@lab.ca			3.0.0	3.0.0	3.0.0
Public repository information	publication_ID	GENEPIO:0100475	The identifier for a publication.	If the isolate is associated with a published work which can provide additional information, provide the PubMed identifier of the publication. Other types of identifiers (e.g. DOI) are also acceptable.	PMID: 33205991			3.0.0	3.0.0	3.0.0
Public repository information	attribute_package	GENEPIO:0100476	The attribute package used to structure metadata in an INSDC BioSample.	If the sample is from a specific human or animal, put "Pathogen.cl". If the sample is from an environmental sample including food, feed, production facility, farm, water source, manure etc, put "Pathogen.env".	Pathogen.env			3.0.0	3.0.0	3.0.0
Public repository information	bioproject_accession	GENEPIO:0001136	The INSDC accession number of the BioProject(s) to which the BioSample belongs.	Required if submission is linked to a BioProject. BioProjects are an organizing tool that links together raw sequence data, assemblies, and their associated metadata. A valid BioProject accession has prefix PRJN, PRJE or PRJD, e.g., PRJNA12345 and is created once at the beginning of a new sequencing project. Your laboratory can have one or many BioProjects.	PRJNA12345			3.0.0	3.0.0	3.0.0
Public repository information	biosample_accession	GENEPIO:0001139	The identifier assigned to a BioSample in INSDC archives.	Store the accession returned from the BioSample submission. NCBI BioSamples will have the prefix SAMN, whileEMBL- EBI BioSamples will have the prefix SAMEA.	SAMN14180202			3.0.0	3.0.0	3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Public repository information	SRA_accession	GENEPIO:0001142	The Sequence Read Archive (SRA), European Nucleotide Archive (ENA) or DDBJ Sequence Read Archive (DRA) identifier linking raw read data, methodological metadata and quality control metrics submitted to the INSDC.	Store the accession assigned to the submitted "run". NCBI-SRA accessions start with SRR, EBI-ENA runs start with ERR and DRA accessions start with DRR.	SRR11177792			3.0.0	3.0.0	3.0.0
Public repository information	GenBank_accession	GENEPIO:0001145	The GenBank/ENA/DDBJ identifier assigned to the sequence in the INSDC archives.	Store the accession returned from a GenBank/ENA/DDBJ submission.	MN908947.3			3.0.0	3.0.0	3.0.0
Risk assessment information		GENEPIO:0100478								
Risk assessment information	prevalence_metrics	GENEPIO:0100480	Metrics regarding the prevalence of the pathogen of interest obtained from a surveillance project.	Risk assessment requires detailed information regarding the quantities of a pathogen in a specified location, commodity, or environment. As such, it is useful for risk assessors to know what types of information are available through documented methods and results. Provide the metric types that are available in the surveillance project sample plan by selecting them from the pick list. The metrics of interest are " Number of total samples collected", "Number of positive samples", "Average count of hazard organism", "Average count of indicator organism". You do not need to provide the actual values, just indicate that the information is available.	Number of total samples collected, Number of positive samples			3.0.0	3.0.0	3.0.0
Risk assessment information	prevalence_metrics_details	GENEPIO:0100481	The details pertaining to the prevalence metrics from a surveillance project.	If there are details pertaining to samples or organism counts in the sample plan that might be informative, provide details using free text.	Hazard organism counts (i.e. Salmonella) do not distinguish between serovars.			3.0.0	3.0.0	3.0.0
Risk assessment information	stage_of_production	GENEPIO:0100482	The stage of food production.	Provide the stage of food production as free text.	Abattoir			3.0.0	3.0.0	3.0.0
Risk assessment information	experimental_intervention	GENEPIO:0100483	The category of the experimental intervention applied in the food production system.	In some surveys, a particular intervention in the food supply chain in studied. If there was an intervention specified in the sample plan, select the intervention category from the pick list provided.	Vaccination [NCIT:C15346]			3.0.0	3.0.0	3.0.0
Risk assessment information	experiment_intervention_details	GENEPIO:0100484	The details of the experimental intervention applied in the food production system.	If an experimental intervention was applied in the survey, provide details in this field as free text.	2% cranberry solution mixed in feed			3.0.0	3.0.0	3.0.0
Antimicrobial resistance		GENEPIO:0100479								
Antimicrobial resistance	antimicrobial_agent_name	GENEPIO:0100521	The name of the agent that kills or slows the growth of microorganisms, including bacteria, viruses, fungi and protozoans.	The names of the drug have already been matched with measurement, breakpoint, and phenotype fields in the template. No need to add these unless the drug of interest is not present. Use the Term Request System to request the addition of other agents.	Amoxicillin-clavulanic [ARO:3003997]			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	AMR_testing_by	GENEPIO:0100511	The name of the organization that performed the antimicrobial resistance testing.	Provide the name of the agency, organization or institution that performed the AMR testing, in full (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Canadian Food Inspection Agency (CFIA) [GENEPIO:0100552]			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	AMR_testing_by_laboratory_name	GENEPIO:0100512	The name of the lab within the organization that performed the antimicrobial resistance testing.	Provide the name of the specific laboratory that performed the AMR testing (avoid abbreviations). If the information is unknown or cannot be provided, leave blank or provide a null value.	Topp Lab			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	AMR_testing_by_contact_name	GENEPIO:0100513	The name of the individual or the individual's role in the organization that performed the antimicrobial resistance testing.	Provide the name of an individual or their job title. As personnel turnover may render the contact's name obsolete, it is more preferable to provide a job title for ensuring accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	Enterics Lab Manager			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	AMR_testing_by_contact_email	GENEPIO:0100514	The email of the individual or the individual's role in the organization that performed the antimicrobial resistance testing.	Provide the email associated with the listed contact. As personnel turnover may render an individual's email obsolete, it is more preferable to provide an address for a position or lab, to ensure accuracy of information and institutional memory. If the information is unknown or cannot be provided, leave blank or provide a null value.	johnnyblogs@lab.ca			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	AMR_testing_date	GENEPIO:0100515	The date the antimicrobial resistance testing was performed.	Provide the date according to the ISO 8601 standard "YYYY-MM-DD", "YYYY-MM" or "YYYY".	2022-04-03			3.0.0	3.0.0	3.0.0
Antimicrobial resistance	antimicrobial_resistance_phenotype		The antimicrobial resistance phenotype, as determined by the antibiotic susceptibility measurement and testing standard for this antibiotic	Select a phenotype from the pick list provided.	Susceptible antimicrobial phenotype [ARO:3004302]			7.7.5		3.0.0

Parent Class	Field	Ontology Identifier	Definition	Guidance	Examples	Deprecated Label	Deprecated ID	Version Tracking		
	Colour Code Legend							Label	ID	Description/Guidance
Antimicrobial resistance	antimicrobial_measurement		The measured value of antimicrobial resistance.	This field should only contain a number (either an integer or a number with decimals).	4			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_measurement_units		The units of the antimicrobial resistance measurement.	Select the units from the pick list provided. Use the Term Request System to request the addition of other units if necessary.	ug/mL [UO:0000274]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_measurement_sign		The qualifier associated with the antibiotic susceptibility measurement	Select the comparator sign from the pick list provided. Use the Term Request System to request the addition of other signs if necessary.	greater than (>) [GENEPIO:0001006]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_laboratory_typing_method		The general method used for antibiotic susceptibility testing.	Select a typing method from the pick list provided. Use the Term Request System to request the addition of other methods if necessary.	Broth dilution [ARO:3004397]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_laboratory_typing_platform		The brand/platform used for antibiotic susceptibility testing	Select a typing platform from the pick list provided. Use the Term Request System to request the addition of other platforms if necessary.	Sensitire [ARO:3004402]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_laboratory_typing_platform_version		The specific name and version of the plate, panel, or other platform used for antibiotic susceptibility testing.	Include any additional information about the antimicrobial susceptibility test such as the drug panel details.	CMV3AGNF			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_vendor_name		The name of the vendor of the testing platform used.	Provide the full name of the company (avoid abbreviations).	Sensititre [ARO:3004402]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_testing_standard		The testing standard used for determination of resistance phenotype	Select a testing standard from the pick list provided.	Clinical Laboratory and Standards Institute (CLSI) [ARO:3004366]			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_testing_standard_version		The version number associated with the testing standard used for determination of resistance phenotype	If applicable, include a version number for the testing standard used.	M100			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_testing_standard_details		The additional details associated with the testing standard used for determination of resistance phenotype	This information may include the year or location where the testing standard was published. If not applicable, leave blank.	27th ed. Wayne, PA: Clinical and Laboratory Standards Institute; 2017.			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_susceptible_breakpoint		The maximum measurement, in the units specified in the "AMR_measurement_units" field, for a sample to be considered "sensitive" to this antibiotic	This field should only contain a number (either an integer or a number with decimals), since the "<=" qualifier is implied.	8			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_intermediate_breakpoint		The intermediate measurement(s), in the units specified in the "AMR_measurement_units" field, where a sample would be considered to have an "intermediate" phenotype for this antibiotic		16			7.7.5		3.0.0
Antimicrobial resistance	antimicrobial_resistant_breakpoint		The minimum measurement, in the units specified in the "AMR_measurement_units" field, for a sample to be considered "resistant" to this antibiotic	This field should only contain a number (either an integer or a number with decimals), since the ">=" qualifier is implied.	32			7.7.5		3.0.0