

Guideline Summary of **Poultry (Broiler Chickens)** NMD Parameters for Verification by the Accredited Verifier (NZFSA VA)

The following table identifies and summarises key technical parameters of the Poultry NMD Programme for verification by the accredited verifier (NZFSA VA), and suggested verification activities for each parameter to confirm that the requirements of the NMD Programme are consistently being met.

This summary **does not include** all technical parameters of the NMD Programme, and **is not exclusive**. The accredited verifier (NZFSA VA) may, using professional judgement, verify any parameter described in Schedule 1 NMD Programme (*where the Verifier identifies anomalies with laboratory procedures or the LAS verification of laboratories, the Verifier shall advise LAS &/or NZFSA*).

The verifier shall oversee the premises performance in terms of National Targets. Premises that consistently exceed National Targets could become subject to review by NZFSA VA or NZFSA CiG. These reviews would attempt to identify reasons for persistent non-performance, and make recommendations of means to improve process control (e.g. implement HACCP based systems).

Unless otherwise specified, section references refer to Schedule 1 NMD Programme.

Aspect to be verified on two occasions each season (ref. s6.9) (Note: the details of verification are included under relevant sections below)	Date & initial on completion
Observing the rotational and/or random selection of sampling day, shift, and time for poultry carcasses to be sampled.	
Observing the collection of samples, including documentation of sample descriptors and chronological information (e.g. laboratory reports).	
Observing the storage of samples prior to packaging, and subsequent packaging of samples for transport (Verifier to apply a NZFSA carton seal to the transport package, to verify samples are received in the correct condition/temperature and that the analyses are commenced in the required time from time of sampling).	
Requesting and observing the laboratory records and reports for samples transported under the NZFSA seal.	
Summary / Comments:	
Aspect to be verified no less than twice per year (ref. s6.9) (Note: the details of verification are included under relevant sections below)	Date & initial on completion
Verification of demographics, documented system, results, data analysis, microbiological targets, responses to exceeding target limits, responses to 'alerts', records (general).	
Summary / Comments:	

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Poultry: Schedule 1 NMD Programme, section reference, description.			Suggested verification activity.	Verification comments / objective evidence.
Documented System / NMD Programme				
1.1, 1.2, Table 1 Poultry (Broiler Chickens). Implementation of the NMD Programme and compliance with requirements is mandatory for premises operating with an RMP. Exporting to the USA or the EU is currently prohibited.	Verify that premises operating to the NMD Programme comply with its requirements or, a suitable microbiological sampling / monitoring programme is in place.			
1.1, 1.2, 2.13.2 Sampling plans must be adequately documented.	Verify that adequate sampling plans are documented and approved (<i>this should include analysis and actions for "alerts" etc as described in subsequent sections</i>).			
1.3 NMD Administration.	Verify that the poultry demographics representing the latest premises details, including NMD Controller, laboratory conducting analysis and process outline have been submitted to NMD.			

Demographics & reports				
1.3 Details of the process are to be documented and submitted to the NZFSA .	Verify that the form available at http://www.nzfsa.govt.nz/animalproducts/publications/forms/nmd-demographics/index.htm was completed at the commencement of processing AND whenever the process changes. <i>Note: It is important that the correct farm and shed details and any changes to the demographics be submitted to the NMD Administrator as soon as possible (within 7 working days).</i>			
5.5.1 Electronic data records submitted to NMD web database shall further identify the process.	Verify from premises records. <i>NOTE: Lab reports returned</i>			

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<p><i>Sample descriptors include:</i> sampling week, sampling, time of day, shift, processing period, time, method of drainage, time of drainage, carcass rinse location, carcass to laboratory, rinse diluents temperature, time analysis initiated, shed flock identifier, name of sampler, collection time of samples, etc.</p>	<p><i>to the company should include such information, as initially supplied by the premises – verifications conducted below will support this. The premises should also verify that this information was appropriately submitted to the NMD web database (particularly by Off-site Labs).</i></p>	
<p>NMD Notice 2008 Clause 13, 5.5.1 Results must be directly entered in to the data base to NZFSA.</p> <p>All results must be submitted within 24 hours of completion of analysis but no later than 1 week after sampling. In the case of Salmonella, confirmation of serotype, no later than 2 weeks.</p>	<p>Verify via premises records that this is occurring. <i>Off-site laboratories may submit the results, however, the premises must ensure (verify) appropriate submission.</i></p>	

Product to be sampled, frequency of sampling and sample numbers

<p>1.1 Table 1, 2.1, 2.3 Table 2, 2.9 Table 6, 2.13, 2.2.2</p> <p><u>Standard throughput</u></p> <p>Sampling is performed daily</p> <p>Samples are collected from:</p> <ul style="list-style-type: none"> ▪ three (n=3) carcasses /day (Whole Carcass Rinse Method), ▪ ten (n=10) caecum samples/cut/day. <p>Very Low Throughput</p> <p>- qualify at $\leq 1,000,000$/year (Based on throughput of previous season).</p> <p>Samples are collected from:</p> <ul style="list-style-type: none"> ▪ five (5) carcasses /week (Whole Carcass Rinse Method), ▪ ten (n=10) caecum samples/cut/day . 	<p>Verify from the documented sampling plan, records and reality, that appropriate numbers of carcasses are sampled each day.</p> <p>Verify from records that the premises qualify as VLT, and that appropriate VLT samples have been taken.</p>	
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Salmonella testing programme – Salmonella performance programme

<p>2.12.1 <i>Salmonella</i> Sampling</p> <p>Standard Throughput</p> <ul style="list-style-type: none"> ▪ Randomly select 1 carcass out of the 3 carcasses to be analysed and analysis from <i>Salmonella</i>, in addition to <i>E.coli</i> and <i>Campylobacter</i>. 		
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<p>VLT Throughput</p> <ul style="list-style-type: none"> Randomly select 1 carcass out of the 5 carcasses to be analysed and analysis from <i>Salmonella</i>, in addition to <i>E.coli</i> and <i>Campylobacter</i>. 		
<p>NMD Notice 2008 Clause 9 (2)(f) 2.5.3 <i>Salmonella</i> Performance</p> <p>Operators are recommended to monitor the prevalence of Salmonella according to the US Performance Standard.</p> <p>Salmonella may be detected in \leq 12 out of 51 consecutive samples.</p>	<p>Verify records/documentation that all notification of salmonella detections have been notified.</p>	

Campylobacter testing programme – Campylobacter performance target

<p>2.12.1 Campylobacter Sampling</p> <p>Standard Throughput</p> <ul style="list-style-type: none"> Analysis all 3 carcasses for Campylobacter per day. <p>VTL Throughput</p> <ul style="list-style-type: none"> Analysis all 5 carcasses for Campylobacter per week. 	<p>Check the correct numbers of samples are being taken on the required processing days.</p>	
<p>NMD Notice 2008 Clause 9(2)(f) 6.8 Table 36, 6.8.1 Campylobacter Performance Target (CPT).</p> <p>High Count Failure (HCF)</p> <ul style="list-style-type: none"> Standard throughput - $\geq 4/15$ samples $\geq \log 5.88\text{cfu/ccs}$ per processing period. VLT throughput - $\geq 2/5$ samples $\geq \log 5.88\text{cfu/ccs}$ per processing period. <p>Moving Window Failure (MWF)</p> <ul style="list-style-type: none"> Standard throughput - $\geq 7/45$ samples $\geq \log 3.78\text{cfu/ccs}$ per moving window (3 processing periods), VLT throughput - $\geq 3/5$ samples higher $\geq 3.78\text{cfu/ccs}$ per moving window (3 processing periods). <p>Quarterly Failure (GF)</p> <ul style="list-style-type: none"> Premises quarterly median $> \log 4.16\text{cfu/ccs}$. 	<p>Ensure NMD Controller has access to the NMD website.</p> <p><i>It is recommended that operators review at least once a week the database to determine compliance to the MWF and HCF compliance as reported on NMD results on line. A processing period is defined in section 6.8 2nd paragraph bullet points 1 and 2:</i></p> <p><i>Standard throughput – a processing period is 5 processing days equalling a total of 15 samples.</i></p> <p><i>VLT – a processing period is one processing week equalling a total of 5 samples.</i></p>	
<p>Response to CPT failure</p> <p>Response 1 – cumulative HCF or</p>	<p>Review records and documentation that appropriate actions have</p>	

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<p>MWF failure rating 1. Operator to review:-</p> <ul style="list-style-type: none"> ▪ Sanitation procedures. ▪ GOP against Poultry Processing COP. ▪ HACCP; with focus on <i>Campylobacter</i> control measures/interventions. <p>Response 2 – cumulative HCF or MWF failure rating 2. Operator to review:-</p> <ul style="list-style-type: none"> ▪ Actions as per response (1), ▪ Internal review of compliance with Broiler Growing Biosecurity Manual, ▪ Equipment warrant of fitness checks by an independent expert. <p>Response 3 – cumulative HCF or MWF failure rating 4. Operator shall submit their current <i>Campylobacter</i> Management Plan to NZFSA within two working days of detecting this non-compliance. The <i>Campylobacter</i> Management Plan must specify all measures that will be implemented to manage the risk from <i>Campylobacter</i> and target dates for implementation.</p> <p>The <i>Campylobacter</i> Management Plan is to include, but is not limited to:</p> <ul style="list-style-type: none"> ▪ Actions as per responses (1) and (2). ▪ Any further sampling and research initiatives. ▪ Introduction of a further intervention which must be capable of implementation without delay. ▪ Some form of product disposition, considering internal and external capacity constraints; unless the operator can show that a particular flock is free of <i>Campylobacter</i> in advance of processing. <p>Response 4 – cumulative HCF or MWF failure rating 6. <i>Campylobacter</i> Strike force (CSF) visits premises and revise management plan. Reviewing operator’s corrective actions, effectiveness of interventions and verification activities. The CSF may also recommend sanctions as listed below in response 5 immediately as an outcome of the visit.</p> <p>Response 5 – cumulative HCF or MWF failure rating 8 – Revising actions</p>	<p>been taken for CPT failures.</p> <p><i>It is recommended that operators keep a time line of response relating to MWF and HCF compliance.</i></p>	
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<p>taken in the Management Plan. Escalation in response may include, not limited to:-</p> <ul style="list-style-type: none"> ▪ Revisit(s) by CSF and further recommendations by CSF. ▪ Increased verification frequency by the VA. ▪ Full-time supervision of processing by the VA. ▪ Introduction of further interventions or some form of product disposition. ▪ Further sampling and research initiatives. ▪ Premises closure. 		
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Sampling plan – random rotational sampling

<p>2.12.2 Random/rotational selection of shift:</p> <ul style="list-style-type: none"> ▪ Standard throughput: Sampling must be conducted every day. ▪ VLT premises must select one day to sample from all available processing days. (<i>refer to Table 12</i>). 	<p>Verify documented sampling plan describes this, and is followed by viewing records.</p>	
<p>2.12.3 Where shift are undertaken, samples must be collected from <u>alternate shifts</u>– see <i>Table 13</i>.</p>	<p>Verify documented sampling plan describes this, and is followed by viewing records.</p>	
<p>2.12.4 Random selection of time within a processing day All processing times within the day must be available for selection.</p> <p>Standard Throughput: Each of the three (3) carcasses must be independently randomly selected from the whole day, thus could be in different time orders: e.g. 2pm, 9am, 4pm. But must be collected in chronological order – in this example the 2nd sample randomly selected would have to be collected first.</p> <p>VLT Throughput: Only the initial carcass of the five (5) carcasses selected must be randomly selected.</p>	<p>Verify documented sampling plan describes this, and is followed by viewing records.</p>	
<p>2.12.5 Changes to processing schedules</p> <ul style="list-style-type: none"> ▪ If processing schedules change in a manner that means that the original random sampling plan can not be followed any remaining samples that day (standard throughput) or week (VLT) must be randomly selected from the 	<p>Verify whether sampling plans and records support appropriate selection criteria where processing restrictions arise (<i>such as kill patterns, length of runs etc.</i>).</p> <p><i>Note: Any missed samples</i></p>	

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<p>remaining available processing time.</p> <ul style="list-style-type: none"> For VLT premises if there is doubt on the number of days (or which single day that week) processing is to be undertaken, ensure that sampling is undertaken on the first processing day. This variation to random selection of sampling day must be recorded. 	<p><i>will be recorded as exceeding the MWF limit on the NMD database.</i></p>	
<p>2.12.6 Poultry <i>Campylobacter</i> Performance Target (CPT) programme sampling requirements (<i>Technical Failures</i>).</p> <p>The NMD Administrator must be notified as soon as practicable:</p> <ul style="list-style-type: none"> Where technical failures such as samples are not delivered to the laboratory within the correct time frame etc., these shall be recorded on the database as technical failures. Where premises processing schedules change suddenly, there are breakdowns, sample transport problems or laboratory errors, variations to the random sample selection protocols are permitted to allow sampling to be undertaken from the remaining processing that day or week to make up the required numbers. Such variations must be recorded. The operator may wish to undertake extra sampling routinely to allow for practical constraints and technical failures. Where extra sampling is undertaken the <i>Campylobacter</i> enumeration results (and <i>E. coli</i> results) entered in the NMD database will commence from the first result each processing day, without prejudice, to a total of 15 results over 5 processing days for standard throughput and 5 results in a week for VLT. 	<p>Where there is evidence that constraints and failures have occurred, verify that these have been appropriately recorded and reported.</p> <p>Check if there are any “missed samples” and if so, check for evidence of corrective actions to prevent further missed samples.</p> <p>Verify that the NMD Administrator has been appropriately notified of any approved derogations.</p>	

Collection of samples

<p>1.5, 2.13, 3.3 Samplers (<i>restricted samplers</i>) must be competent & trained by Certified or Associate trainers.</p>	<p>Verify that samplers are trained by appropriate Certified or Associate trainers.</p>	
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<p>– refer to Internet site: http://www.nzfsa.govt.nz/animalproducts/milab/index.htm</p>	<p>Verify training records for sampling personnel.</p> <p>Verify that operator is communicating with the laboratory regarding training records/audits of staff involved with sampling.</p>	
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Sampling location within the process

<p>2.7.2 Figure 2 poultry carcasses must be collected:</p> <ul style="list-style-type: none"> ▪ Whole carcasses are selected for the whole carcasses rinse method, ▪ <i>Premises where carcasses are mixed in bins for manual grading. Immediately prior to grading (where carcasses are mixed in bins for manual grading), or</i> ▪ <i>Premises where carcasses are re-hung in the chain after chilling. Immediately prior to the first drop point at which carcasses enter secondary processing or are bagged for retail, (or a more readily accessible point may be chosen, but an adjustment made for the time it would take to get to the true selection point – (refer 2.7.2 & Figure 2 for details of T⁰ adjustments).</i> <p>Record: time of sampling, shift.</p>	<p>Observing sampling location and verify records.</p>	
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Whole carcass rinse procedure

<p>3.4.3 Whole Carcass Rinse Method:</p> <ul style="list-style-type: none"> ▪ Plastic Sample bags with twist ties or equivalent, ▪ Label Bags (date & time of sample), ▪ 400ml of ssBPW (Table 17) is used for rinsing. (3.3.1), ▪ Invert bag aseptically over hand and pick up the drained carcass by the legs (<i>with the bagged hand</i>) and reverse the bag over the carcass, ▪ Either, rinse the carcass in the processing hall, <u>or</u> transport carcass to the laboratory within 15- 	<p>Verify documented sampling plan describes this, and is followed.</p>	
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<p>30 minutes,</p> <ul style="list-style-type: none"> ▪ Rinse (as per 3.4.3.1 table 22, Figure 12). <ul style="list-style-type: none"> ○ Rinse by rocking for minimum of 120 seconds. ○ Transfer whole rinse sample, or 70mls (refer 3.4.3.1 for details) to Laboratory. <p>Disposition of Rinsed Carcasses</p> <ul style="list-style-type: none"> ▪ If rinsed in process room – return to immersion chiller or, ▪ If subject to air chilling, rinse with potable water first. ▪ If rinsed in Laboratory – must not return to process room. 		
<p>3.4.3, 3.5.8 (5) Time of collection of carcasses Standard throughput: time of collection of each of the three carcasses must be documented (<i>times are important relative to timing of analysis – refer below s3.5.6 - 3.5.8</i>). VLT: Only the time of collection of the first carcass of 5 needs to be recorded.</p>	<p>Verify from records. <i>Note: only 3 carcasses are sampled daily (or 5/wk for VLT).</i></p>	

Caecum procedure

<p>2.13.1 All broiler processes</p> <ul style="list-style-type: none"> ▪ Ten (10) broilers per shed must be collected at every cut per shed. (<i>composited to one sample for analysis</i>). <p>Samples must be submit to lab identifying the follow descriptors: <i>Unique sample id, date, time of collection, farm reference ID, cut number, average age of birds, shed, NMD ID, samplers name.</i></p>	<p>Verifier that the operator has a documented sampling regime.</p>	
<p>2.13.2 Samples collection Samples must be collect after the birds have passed the vent cutter, during evisceration. Identifying the caecum and remove, placing aseptically into a labelled bag.</p>	<p>View sampling and collection of sample.</p>	

Transport to the laboratory (procedures, times, and temperature)

Caecal samples

<p>2.13.3 Transport and temperature requirements for caecal samples.</p> <p>On sampling each caecal sample must be immediately placed into an</p>	<p>Verify samples at stored correctly and received by laboratory at the correct temperature.</p>	
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<p>insulated container with sufficient frozen coolant to cool the sample, and stored onsite in a refrigerator operating at 0°C-5°C until transported.</p> <p>Temperature does not need to be record if the sample can be transported to the laboratory in 30 minutes and analysis commences in 30 minutes.</p> <p>During transport and delivery to the Laboratory samples must be ≤10°C, but not frozen. Samples must be received within 24 hours of collection of the first sample.</p> <p>The laboratory conducting the analysis (whether routinely analysing samples within 30 minutes or later) is required to regularly verify that sufficient coolant was used in the container to rapidly cool the caecal samples to ≤10°C.</p>	<p>Verify that samples are being analysed within 30 minutes of time of sampling, where temperatures are <u>not</u> recorded.</p>	
Whole carcasses		
<p>3.5.6, figure 14, 3.5.7 Transportation</p> <ul style="list-style-type: none"> ▪ Tightly seal the sample bag (<i>containing carcass or 400ml rinse sample</i>), or vial (<i>70ml samples</i>). <p>At Collection and during Transport, all samples must be placed in an insulated container with a frozen coolant. (<i>Samples must not directly contact coolant. Samples must never be frozen</i>).</p>	<p>Verify by observation of sampling procedures.</p>	
<p>3.5.6, Figure 14 Unrinsed Whole Carcass analysis must be initiated no later than 30 minutes after the carcass is selected. [Unrinsed whole carcass must be transported to laboratory within 15-30 min.]</p>	<p>Verify from laboratory reports.</p>	
<p>3.5.6 Figure 14, 3.5.8 During Collection and Transportation, rinse sample temperatures (T_{int}):</p> <ul style="list-style-type: none"> ▪ should not exceed 5°C; and ▪ must not exceed 10°C. <p><i>A refrigerator operating between 0°C - 5°C must be used to Store samples.</i></p> <p><i>NOTE: Where diluents are used, they must be maintained at T_{int} until analysis commences.</i></p>	<p>Verify by observation of sampling procedures, and laboratory reports.</p> <p><i>(Temp. at arrival should typically be <5°C, but may be up to 10°C).</i></p>	
<p>3.5.8, 3.5.6 Figure 14 Rinse Sample analysis must be initiated within 24</p>	<p>Verify by observation of sampling procedures, and</p>	

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<p>hours of collecting the first whole carcass in consignment of samples dispatched to laboratory – premises to verify.</p> <p>On occasions when practical issues dictate, but not routinely, the maximum period between collection and analysis may be extended to 30 hours (reasons must be recorded).</p>	<p>laboratory reports.</p> <p><i>NOTE: Times apply to all laboratories and samples (On-site, Off-site, day shift samples and night shift samples).</i></p>	
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Analysis required

<p>1.6 All sample analysis must be performed by a LAS approved laboratory.</p> <p>- refer to Laboratory Signatories (& Approved Laboratories) on Internet site: www.nzfsa.govt.nz/animalproducts/milab.</p>	<p>Verify that the laboratory performing the analysis is LAS approved for all the required tests.</p>	
<p>2.9 Table 6, 2.10 Table 7 Testing for <i>Campylobacter</i>, <i>E. coli</i> and <i>Salmonella</i> is required.</p> <ul style="list-style-type: none"> ▪ <i>Campylobacter</i> every carcass, ▪ Select one carcass for <i>E. coli</i>, <i>Salmonella</i> analysis ▪ Standard Throughput select a further carcass for <i>E.coli</i> analysis, ▪ refer to <i>Laboratory Signatories and Appendices of Official/Discretionary Tests on Internet site:</i> www.nzfsa.govt.nz/animalproducts/milab 	<p>Verify that correct Official Tests are performed and the appropriate results are reported back to the premises.</p>	

Microbiological targets

<p>NMD Notice 2008 Clause 9, and Schedule 1 section 6.1 In-house microbiological targets shall be set and results presented in a manner to facilitate early identification and visualisation of loss of process control.</p>	<p>Verify the choice of suitable in-house targets, and that appropriate analysis (<i>e.g. trend analysis, statistical process control charts</i>) are being utilised effectively and reviewed by NMD Controller at least weekly.</p>	
<p>6.6.5 Poultry quarterly report ranked list - premises highlight in bold each quarter should review their process.</p>	<p>The ranked lists also include <i>Campylobacter</i> ranking. Very important operator reviews their ranked list to assess their relative performance.</p>	
<p>6.8 Poultry Campylobacter</p>	<p>As per compliance</p>	

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Performance Target (CPT)	requirements.	
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