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*Great Lakes Forestry Centre
Insect Production Services*

STANDARD OPERATING PROCEDURE

Number: IPS/029/002

Tracking Quality Control Samples



Effective Date: 21 October 2013

Canada



TITLE: Tracking Quality Control (QC) Samples

APPROVING OFFICIAL:

Manager, Insect Production Services (IPS) _____ DD / MM / YY
_____/____/____

SIGNIFICANT CHANGES FROM PREVIOUS VERSION:

- New definitions have been added; others have been revised.
- Confidentiality section has been revised to indicate that SOPs are no longer confidential documents.
- IPS Form Number 0075 has been revised.

1.0 INTRODUCTION

1.1 Purpose

This Standard Operating Procedure (SOP) has been established to ensure that all samples of insects, prepared diet and diet ingredients collected for QC analysis are tracked for receipt, analysis and reporting of results to the Insect Production Unit (IPU).

1.2 Scope

This SOP shall be followed by all QCU personnel upon receipt of QC samples from the IPU or other clients.

1.3 Definitions

Controlled Copy – A copy of an SOP distributed to select GLFC personnel having a unique copy number and dated signature of the IPS manager. Controlled copies are intended to ensure that GLFC personnel follow the most recent version of the SOP.

Effective Date – The date from which the procedures given in an SOP are to be implemented.

Great Lakes Forestry Centre (GLFC) – One of five Canadian Forest Service (CFS) research facilities in Canada.

Head Quality Control Technician – A member of IPS having authority over the daily operation of the QC lab and other QC personnel.

Insect Production Services (IPS) – A GLFC work team consisting of the Insect Production Unit (IPU), the Quality Control Unit (QCU) and IQ personnel who



perform insect rearing, quality control and quarantine activities in support of forest pest research activities internal and external to the CFS.

Insect Production Services Manager – The individual who has overall responsibility for activities of the IPS team.

Insect Production Unit (IPU) – A work unit of IPS consisting of personnel who perform insect rearing, diet making and methods development activities at GLFC.

Quality Control Lab – An analytical laboratory under the control of IPS used by the QCU for monitoring production, process and product control for all IPU insect colonies, and for developing new QC methods and procedures.

Quality Control Unit (QCU) – A work unit of IPS consisting of personnel who conduct routine production, process and product control testing and develop QC methodology in support of IPU activities.

Standard Operating Procedures (SOPs) – Directives describing routine administrative or technical procedures conducted by IPS personnel or users of the IQ facility.

1.4 Safety

NA

1.5 Materials

- 1.5.1 QC Sample Receipt Log.
- 1.5.2 IPS Form Number 0035/002 (Tracking of Insect QC Samples, Appendix 1).
- 1.5.3 IPS Form Number 0075/003 (Tracking of Diet QC Samples, Appendix 2).

2.0 PROCEDURES

2.1 Receipt of Insect Samples

- 2.1.1 QCU personnel shall contact the IPU at least weekly to obtain QC samples for analysis.
- 2.1.2 Upon receipt of samples (from either the routine weekly pick-up or when other time-critical samples are provided by the IPU), QCU personnel shall ensure that each container is clearly labeled with the identifier(s) specified in the applicable IPS SOP. The IPU shall be contacted immediately if clarification is required. Notations of explanation may be added to the sample label by QCU personnel.



- 2.1.3 Each sample received shall immediately be logged on IPS Form Number 0035/002 (Tracking of Insect QC Samples, Appendix 1), including:
 - a) Date received.
 - b) Insect species name.
 - c) Type of sample (insect samples shall be identified by their stage of development).
 - d) Description of the sample, including cohort identification (where applicable), number of sub-samples and any other pertinent identifying information.
- 2.1.4 The individual logging the receipt of a sample shall initial the tracking form.
- 2.1.5 All insect samples received during the week shall be maintained in the QC lab freezer in a paper bag labeled "QC samples" and with the date of receipt, until time permits processing.
- 2.1.6 The tracking sheet shall be maintained in the *QC Sample Receipt Log*.

2.2 Receipt of Diet Samples

- 2.2.1 QCU personnel shall contact the IPU after each diet making session to obtain samples from each batch made. Samples of diet ingredients may also be requested from the IPU when deemed necessary by the QCU.
- 2.2.2 Upon receipt, QCU personnel shall ensure that each sample is clearly labeled with the identifier(s) specified in the current version of SOP Number IPS/010 (Preparation of Artificial Diets). The IPU shall be contacted immediately if clarification is required. Notations of explanation may be added to the sample label by QCU personnel.
- 2.2.3 Each sample received shall immediately be logged on IPS Form Number 0075/003 (Tracking of Diet QC Samples, Appendix 2), including:
 - a) date received
 - b) type of Diet
 - c) diet ID
 - d) batch #(Note: "NA" shall be used when samples of diet ingredients are submitted to the QCU for analysis.)
- 2.2.4 The individual logging the receipt of samples shall initial the tracking form.
- 2.2.5 All samples received shall be maintained in sealed containers in the QC lab refrigerator until processing, as specified in the current version of SOP Number IPS/011 (QC for Artificial Diets).
- 2.2.6 The tracking sheet shall be maintained in the *QC Sample Receipt Log*.



2.3 Processing of Insect Samples

- 2.3.1 Insect samples shall be prepared for analysis as specified in the applicable QC SOP for that species.
- 2.3.2 The individual preparing the sample shall initial the applicable portion of the tracking form. "NA" shall be entered on the form for samples not requiring the preparation of microscope slides prior to examination.
- 2.3.3 Samples shall be examined and results documented as specified in the applicable QC SOP for that species.
- 2.3.4 The individual examining the sample shall initial the tracking form.

2.4 Processing of Diet Samples

- 2.4.1 Samples of prepared diet or diet ingredients shall be processed as specified in the current version of SOP Number IPS/011 (QC for Artificial Diets).
- 2.4.2 The individual processing the sample shall initial the applicable portion of the tracking form for each test that is conducted and use "NA" when appropriate.
- 2.4.3 Diagnostic results shall be documented as specified in the current version of SOP Number IPS/011 (QC for Artificial Diets).

2.5 Reporting of Results

- 2.5.1 Diagnostic results shall be reported to the IPU as specified in the applicable QC SOP for that species or as specified in the current version of SOP Number IPS/011 (QC for Artificial Diets).
- 2.5.2 The date QC results are reported to the IPU shall be documented and initialed on the applicable tracking form by the individual who prepared it. "NA" shall be entered on the form when reporting to the IPU is not specified in the SOP.

2.6 Archiving of Samples

- 2.6.1 Insect samples shall be maintained by species in the freezer of the QC lab in a paper bag labeled with the species name and the start date when materials were first added. When a bag becomes full, an end date shall be added to the label and the bag transferred to the QCU chest freezer in the basement, where it shall be maintained for a minimum period of six months.
- 2.6.2 Microscope slides shall be maintained by insect species in the QC lab in a slide box labeled with the species name and the start date when materials were first added. When a box becomes full, an end date



shall be added to the label and the contents of the box shall be maintained for a minimum period of one year.

- 2.6.3 Diet samples shall be discarded upon completion of processing and examination.

2.7 Calculations

NA

2.8 Documentation and Reporting

- 2.8.1 Receipt, analysis and reporting of results of QC samples shall be documented on the applicable tracking form (i.e., IPS Form Number 0035/002 or 0075/003, Appendices 1 and 2) as specified in sections 2.1 through 2.5
- 2.8.2 Tracking forms shall be maintained in a *QC Sample Receipt Log*.

3.0 DISTRIBUTION AND ARCHIVING

3.1 Distribution

This SOP shall be distributed by the IPS manager to all QCU personnel.

3.2 Archiving

- 3.2.1 The IPS manager shall maintain a historical copy of this SOP when it is replaced by a new version.
- 3.2.2 QCU personnel shall transfer the contents of the *QC Sample Receipt Log* to a historical file on an annual basis.
- 3.2.3 Insect samples shall be archived as specified in section 2.6.1.
- 3.2.4 Microscope slides shall be archived as specified in section 2.6.2.

3.3 Destruction of Outdated SOPs

When a new version of this SOP is available for distribution, all persons in possession of a *Controlled Copy* shall ensure that the retired version is returned to the IPS manager upon request.

4.0 ASSURING SOP VALIDATION AND COMPLIANCE

4.1 Responsible Individual

- 4.1.1 The head QC technician is responsible for assuring that this SOP is valid.
- 4.1.2 The head QC technician is responsible for assuring that this SOP is followed by QCU personnel and that they have been appropriately trained in its use.



- 4.1.3 QCU personnel are responsible for complying with procedures specified on a *Controlled Copy* of this SOP and shall never use non-controlled copies (which could be outdated).

5.0 REVISION OF THE SOP

5.1 Responsible Individual

The head QC technician is responsible for ensuring that this SOP is current and shall initiate the revision process if necessary.

5.2 Revision Schedule

This SOP shall be revised when its provisions no longer agree with current practices or GLFC policies and shall be approved by the IPS manager.

6.0 CONTINGENCIES

When QCU personnel find circumstances that do not permit compliance with this SOP, the head QC technician shall be consulted.

7.0 CONFIDENTIALITY

IPS SOPs are not considered confidential documents and may be distributed to outside parties. *Controlled Copies* shall not be reproduced.

8.0 REFERENCES

- a) Current version of SOP Number IPS/010 (Preparation of Artificial Diets).
- b) Current version of SOP Number IPS/011 (QC for Artificial Diets).

9.0 APPENDICES

Appendix 1: IPS Form Number 0035/002 (Tracking of Insect QC Samples)
Appendix 2: IPS Form Number 0075/003 (Tracking of Diet QC Samples)



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Appendix 1

Tracking of Insect QC Samples

Sample Receipt				Processing (Initials)		Results Reported to IPU			
Date Rec'd (DD/MM/YY)	Species	Type of Sample	Description or I.D.	Initials	Slides Prepared	Examined	Yes or No	Date (DD/MM/YY)	Initials

IPS Form Number 0035/002



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Appendix 2

Tracking of Diet QC Samples

Sample Receipt				Test Processed (Initials)				Results Reported to IPU			
Date Rec'd (DD/MM/YY)	Type of Diet	Description		Initials	visual inspection	microbial screening	pH	gel strength	Yes or No	Date (DD/MM/YY)	Initials
		Diet ID	Batch #								

IPS Form Number 0075/003

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