

7th Meeting of the
**Asian Soil Laboratory
Network**
(SEALNET)

19-20 September 2023

SEALNET 2023 Regional Proficiency Testing

Gina P. Nilo, Ph.D.

SEALNET Chair

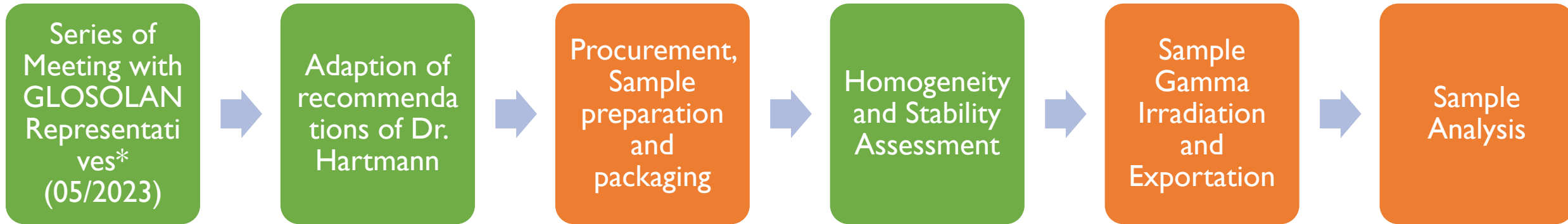
Presented by: **John Adrian Pascua, RCh**

Chemist II



SEALNET
ASIAN SOIL LABORATORY NETWORK

Proficiency Testing for SEALNET 2023



Tests to be offered

pH, Organic Carbon, Total Nitrogen, Available Phosphorus, Exchangeable Potassium, Particle Size Analysis*

Concerns / Matters Arising

Philippines has currently no capacity to irradiate the samples due to equipment malfunction. Gamma Irradiation is currently being coordinated with FAO Asian and Regional Office, with Malaysia as the target country for gamma irradiation. Samples are then distributed to member countries through FAO.

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Proficiency Testing for SEALNET 2023

Homogeneity and Stability Assessment Summary

Parameter	Method	$\bar{x} \pm U$ of CRM / QRM*	Acceptance Criteria	Assessment Criteria	Stable after 4 months?
Moisture Content	Oven Drying Method	5.96 \pm 0.054%	4.65 % - 6.27 % (C.I.)	Adequately Homogeneous	Yes, Normal Criteria
pH	1:1 H ₂ O	6.92 \pm 0.10 pH units	6.86 – 6.93 pH units (C.I.) 6.67 – 7.12 pH units (T.I.)	Adequately Homogeneous	Yes, Expanded Criteria
Total Organic Carbon	Walkley-Black Colorimetric	2.09 \pm 0.11 % OM	2.63 % - 2.94 % (C.I.) 1.96 % -3.61 % (T.I.)	Adequately Homogeneous	Yes, Normal Criteria
Exchangeable Potassium	Leaching, 1 M Ammonium Acetate, pH = 7.00	345.4 \pm 46.7 mg/kg	341 mg/kg – 387 mg/kg (C.I.) 224-504 mg/kg (T.I.)	Adequately Homogeneous	Yes, Normal Criteria
Available Phosphorus	Bray I and / or Olsen	12.40 \pm 0.56 mg/kg	7.9 – 18.3 mg/kg (C.I.)	Adequately Homogeneous	Yes, Normal Criteria
Total Nitrogen	Kjeldahl N	0.090 \pm 0.0033 %	0.086 % – 0.102 % (C.I.)	Adequately Homogeneous	Yes, Normal Criteria

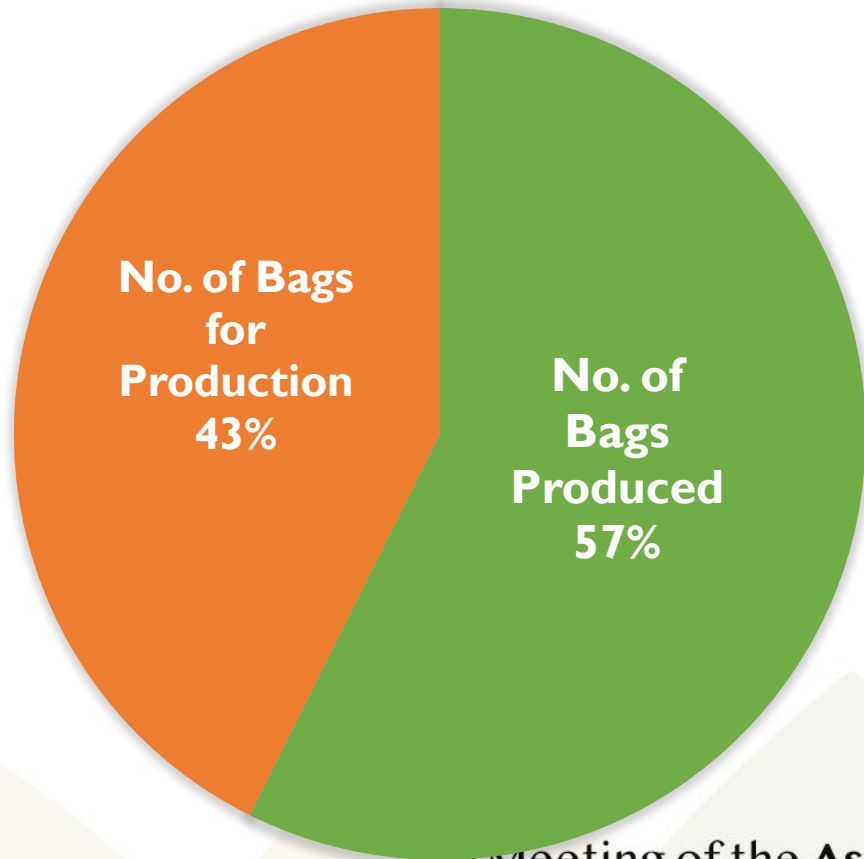
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Proficiency Testing for SEALNET 2023

Preparation Progress

STATUS OF SAMPLE PACKAGING
TARGET: 2275 BAGS



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Proficiency Testing for SEALNET 2023

Ways Forward

Activity	Responsible Institution	November				December				January				February	
		2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	
Gamma Irradiation	Another Country (e.g. Malaysia)	█													
Shipment of Soil Sample	Another Country with FAO-SEALNET					█									
Analysis of soil fertility parameters	Soil Laboratory Participants							█							
Submission of results	Soil Laboratory Participants									█					
Conduct of Stability Studies	BSWM (Phil)											█			
Determination of assigned values	FAO-SEALNET													█	
Statistical evaluation of Performance Assessment	FAO-SEALNET Results,													█	
Preparation of Proficiency Reports	FAO-SEALNET Testing													█	



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Thank you for listening!

