



Government Laboratory of Hong Kong
Proficiency Testing Programme (GLHK PT 18-04)
Assay of Chinese Materia Medica

ASSAY OF CHINESE MATERIA MEDICA

PROFICIENCY TESTING PROGRAMME

GLHK PT 18-04

FINAL REPORT

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Summary of Results

1. This proficiency testing programme (GLHK PT 18-04) was organised by the Government Laboratory of Hong Kong (GLHK) with the support from the Hong Kong Council for Testing and Certification (HKCTC). The main objectives of the proficiency testing programme are (i) to assist participating laboratories in demonstrating competence on determination of specific chemical marker(s) and water contents in the two selected Chinese Materia Medicas (CMMs); and (ii) to identify areas for improvement.
2. A total of 12 laboratories registered for the programme (i.e. 11 laboratories in Hong Kong, and 1 laboratory in Guangdong). Participants were requested to determine the mass fractions (%) of chemical marker(s) and water contents in the two CMMs. The number of results returned for each CMM is summarised in Table 1.

Table 1: Number of results returned for each CMM

CMM	Water content	Chemical marker(s)
Atractylodis Rhizoma (蒼朮)	9	8
Forsythiae Fructus (連翹)	12	11

3. The assigned values for the water content and chemical marker(s) were derived as the robust average of the participants' results using robust statistics according to Annex C of ISO 13528:2015. The standard deviation for proficiency assessment (σ_{pt}) for the water content and chemical marker(s) was calculated as the robust standard deviation of the participants' results according to Annex C of ISO 13528:2015.
4. The z-scores of the participants for the water contents are summarised as follows:

CMM	Number of participants (Percentage)		
	$ z \leq 2.0$	$2.0 < z < 3.0$	$ z \geq 3.0$
Atractylodis Rhizoma (蒼朮)	7 (78%)	0	2 (22%)
Forsythiae Fructus (連翹)	12 (100%)	0	0



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5. The z-scores of the participants for the mass fraction of each chemical marker (as-received basis) are summarised as follows:

Chemical marker (as-received basis)	Number of participants (Percentage)		
	$ z \leq 2.0$	$2.0 < z < 3.0$	$ z \geq 3.0$
Atractylodin	7 (88%)	1 (12%)	0
Phillyrin	11 (100%)	0	0

6. The z-scores of the participants for the mass fraction of each chemical marker (dry-mass basis) are summarised as follows:

Chemical marker (dry-mass basis)	Number of participants (Percentage)		
	$ z \leq 2.0$	$2.0 < z < 3.0$	$ z \geq 3.0$
Atractylodin	7 (88%)	1 (12%)	0
Phillyrin	10 (91%)	1 (9%)	0

~End~