

Proficiency Testing Program  
Organised by  
Center for Laboratory Proficiency Testing  
Department of Science Service,  
Ministry of Science and Technology, Bangkok, Thailand  
Ca, Cu, Fe, Mg, Mn, K, Na, Zn and P in Feeding stuffs  
PTFF - FA02 - 1801  
23 April 2018

SUMMARY SHEET

Laboratory Name : Technical Training and Support Service, Center for Scientific and Technological Equipment, Walailak University

Laboratory Code : FA02 - 1801 - 041

Test items	Number of results	Assigned value ( $x_{pt}$ )	Standard deviation for proficiency assessment ( $\sigma_{pt}$ )	Lab's result		z-score
				Value	MU	
Ca (g/100g)	56	1.165	0.117	1.149	-	-0.14
Cu (mg/kg)	39	312	31	294	-	-0.58
Fe (mg/kg)	41	994	199	814	-	-0.90
Mg (g/100g)	35	0.241	0.024	0.229	-	-0.50
Mn (mg/kg)	38	81.0	12.2	65	-	-1.31
K (g/100g)	35	0.844	0.127	0.777	-	-0.53
Na (g/100g)	40	0.236	0.024	0.231	-	-0.21
Zn (mg/kg)	37	198	20	199	-	0.05
P (g/100g)	50	0.533	0.064	0.424	-	-1.70

**Note**

- Assigned values ( $x_{pt}$ ) are the robust averages of the participant results in this round, calculated by using Algorithm A (ISO 13528:2015).
- Standard deviations for proficiency assessment ( $\sigma_{pt}$ )
  - For Ca, Cu, Fe, Mg, Mn, K, Na and Zn the standard deviations are the target standard deviations by perception from previous rounds and expert judgement.
  - For P the standard deviation is the target standard deviations by perception from the standard method (ISO 6491:1998).
- Each z-score marked with "A" is an outlier ( $|z| \geq 3.0$ ). Therefore, laboratory which is marked with "A" shall investigate the result. Laboratory is also encouraged to review the result which has an absolute z-score value between two and three ( $2.0 < |z| < 3.0$ ) marked with "W".
- This summary sheet shall be read in conjunction with the final report.

Reported by



(Miss Sukanya Pondet)  
Program Coordinator

Approved by



(Mrs. Pochaman Tagheen)

Head of Center for Laboratory Proficiency Testing  
Department of Science Service