

Supporting Information

The Uptake, Translocation, Metabolism and Distribution of Glyphosate in Non-target Tea Plant (*Camellia sinensis* L).

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Table S1. Linear equations and correlation coefficients of PMG and AMPA; Matrix effect (ME), Recovery, and Relative Standard Deviation (RSD) of PMG and AMPA compounds in fresh tea leaf extract (n=6) spiked with 0.5 mg kg⁻¹ of PMG or AMPA;

Figure S1. Effects of different clean-up methods following aqueous extraction of fresh tea leaves on the recoveries of spiked PMG and AMPA (4 mg kg⁻¹). Clean-up methods were: (A) HLB; (B) CH₂Cl₂+HLB; (C) CH₂Cl₂+PVPP+GCB.

Table S1 Linear equations and correlation coefficients of PMG and AMPA; Matrix effect (ME), Recovery, and Relative Standard Deviation (RSD) of PMG and AMPA compounds in fresh tea leaf extract (n=6) at the spiked of 0.5 mg kg⁻¹

| Compound | Linear equations | Correlation | Spiked level (0.5 mg kg ⁻¹) | | |
|----------|-------------------|--------------------------------|-----------------------------------------|----------|-------|
| | | Coefficients (r ²) | ME(%) | Recovery | RSD |
| PMG | y =9807.6x-15.536 | 0.9999 | 13.95 | 84.2 | 5.87 |
| AMPA | y =10821x+0.0647 | 0.9998 | 18.84 | 72.3 | 10.74 |

Explanation for Table S1: The linearity of the standard curves of PMG and AMPA were good and the r² values were higher than 0.999. The MEs of PMG and AMPA were evaluated in fresh tea leaves because they represented a more complex matrix than roots or stems. The ME values were both less than 20%, indicating that the matrix effect was not obvious. Therefore, the standard solution of targets was used for calibration and determination of PMG and APMA in tea matrix instead of the matrix match standard calibration. The average recovery of PMG and AMPA in fresh tea leaves was 84.2% and 72.3%, RSD were below 20% all recovery tests.

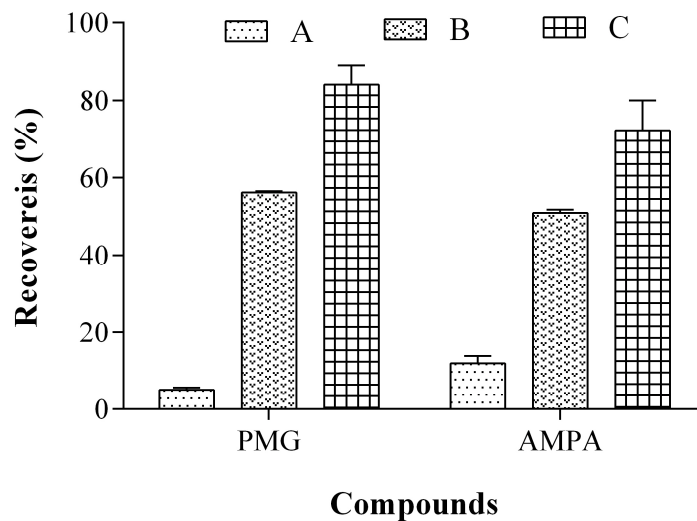


Fig. S1 the recoveries of different clean-up methods following aqueous extraction of fresh tea leaves on the recoveries of spiked PMG and AMPA (4 mg kg^{-1}). Clean-up methods were: (A) HLB; (B) CH_2Cl_2 +HLB; (C) CH_2Cl_2 +PVPP+GCB

Explanation for Figure S1: The recoveries of glyphosate and AMPA with different clean-up methods were compared. The lowest recovery of both glyphosate and AMPA was got when HLB was used. The recoveries of the both targets were increased when liquid-liquid extraction combined PVPP and GCB absorbents was used. The proposal QuEChERS dispersive cleanup method resulted in 84.2% and 72.3% recovery rates for glyphosate and AMPA, respectively.