

Supplement File S1

Table S1. Temperature and precipitation characteristics at strawberry plantation (Farm Hanč, Vraňany, Czech Republic).

Temperature and precipitation	2019	2020	2021
Average year temperature (°C)	10.2	9.9	8.7
Long-term temperature normal (°C)	8.2	8.2	8.2
Sum of rainfall (mm)	519	629	627
Long-term rainfall normal (mm)	590	590	588

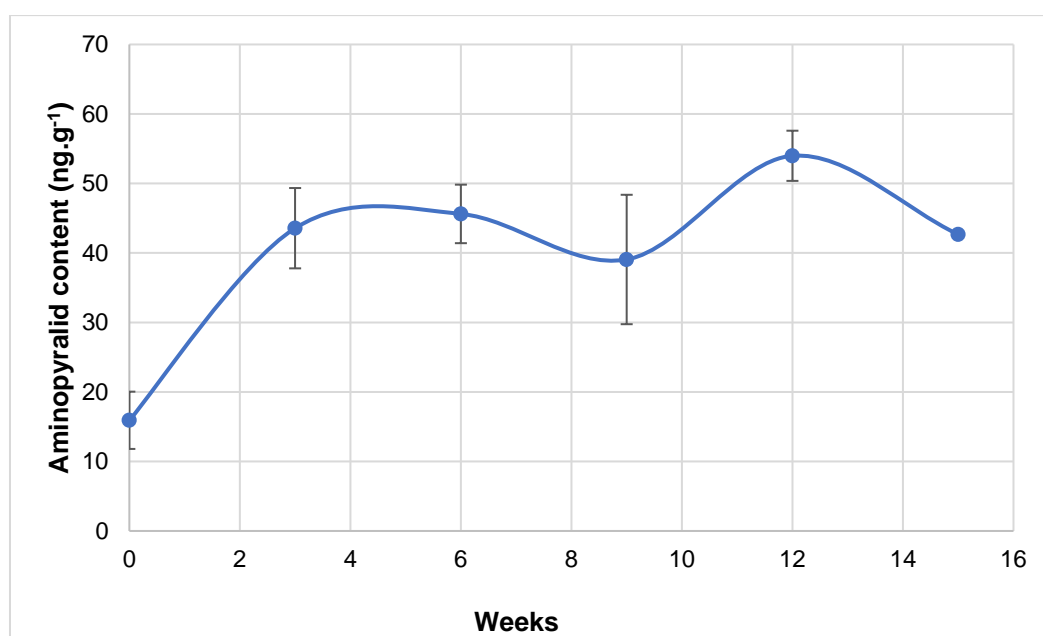


Figure S1. Time course of changes of the content of aminopyralid in Mustang Forte-treated, wheat straw during composting process expressed per dry biomass.

Supplement File S2

Table S2. Validation results of straw samples (n=3).

Spiked AP conc. (ng.g ⁻¹)	Measured AP (ng.g ⁻¹)	Std. dev. ±	Spiked AP (ng.g ⁻¹)	Recovery- Trueness	RSD%- Precision	LOQ (ng.g ⁻¹)	Matrix effect %	Rt ±
w/o AP	0.05	0.03	0	-	-			
5	4.04	0.51	5	79.95%	12.69%	5	79.18%	± 0.01
10	9.99	1.69	10	99.43%	16.93%	-	-	-
25	22.27	2.48	25	88.89%	11.12%	-	-	-
50	39.20	1.38	50	78.31%	3.53%	-	-	-

Supplement File S3

Parameters of MS analysis of aminopyralid

Ion source settings:

ion spray voltage:	4500 V
source temperature:	550 °C
gas flow 1:	50 psi
gas flow 2:	50 psi

The MS-transition parameters are listed in Table S3.

Table S3. MS-transition parameters.

Compound	Q1 (Da) ^a	Q3 (Da) ^b	DP ^c (V)	EP ^d (V)	CE ^e (V)	CXP ^f (V)
Aminopyralid quantifier	206.943	160.9	21	10	29	18
Aminopyralid qualifier	206.943	133.9	21	10	43	14

^a Q1: Precursor ion, ^b Q3: Product ion, ^c DP: declustering potential, ^d EP: Entrance potential, ^e CE: Collision energy, ^f CXP: Collision exit potential.

Supplement File S4

Analytical method validation

Extraction and analysis validation

Linearity (sensitivity) was checked from eight calibration standard levels (1.0, 2.5, 5.0, 10.0, 25.0, 50.0, 75.0, and 100.0 ng.mL⁻¹). Matrix effect was calculated by comparison of response from solvent-based calibration standards and matrix-matched calibration standards. Trueness (Recovery%) was calculated on the basis of the ratio of the spiked blank sample's practical concentration to the theoretical concentration and should be in the range of 70-120%. Precision (repeatability) was calculated as the relative standard deviation (RSD%) of the same level spiked samples. The lowest spiking level was stated as the limit of quantification (LOQ) when the trueness (70-120%) and RSD% (<20%) met the acceptance criteria. The retention time shift was less than ± 0.1 minutes.

Calibration Curve

Blank straw extracts prepared with the same method as samples were used for matrix-matched (MM) calibration with spiking the extracts at corresponding concentrations. External calibration standards were prepared in the 1% formic acid in methanol at the same concentrations of MM standards to calculate the matrix effects. The peak area of AP at each concentration level was used for the calibration curve with 1/x weighting.

The calibration curves for strawberry root, leaves, and fruit samples were prepared according to the standard addition method since the blank samples were not available in sufficient amounts. Pooled plant-part extracts were spiked with AP at three levels (5.0, 10.0, and 25 ng.mL⁻¹), and pooled blank quote was also used in the calibration curve.

Samples of the non-treated straw obtained from organic farming were used as the blank material and artificially spiked to reach four different levels of AP.