

Supplementary materials

The metabolic profile of *Anchusa officinalis* L. differs according to its associated arbuscular mycorrhizal fungi

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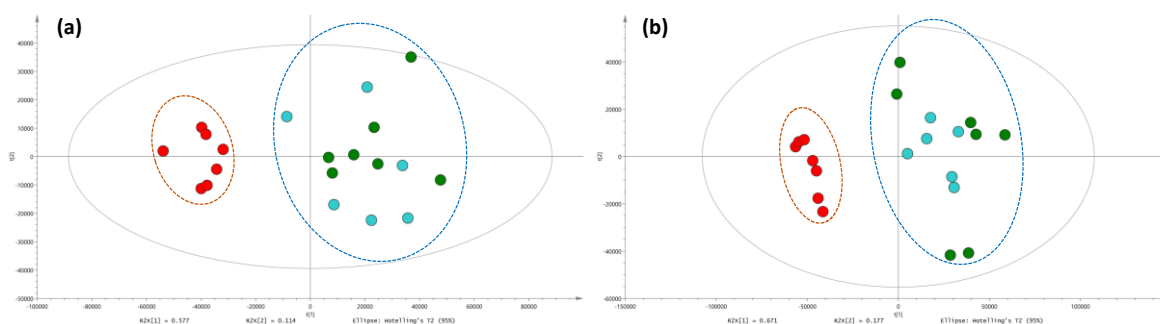
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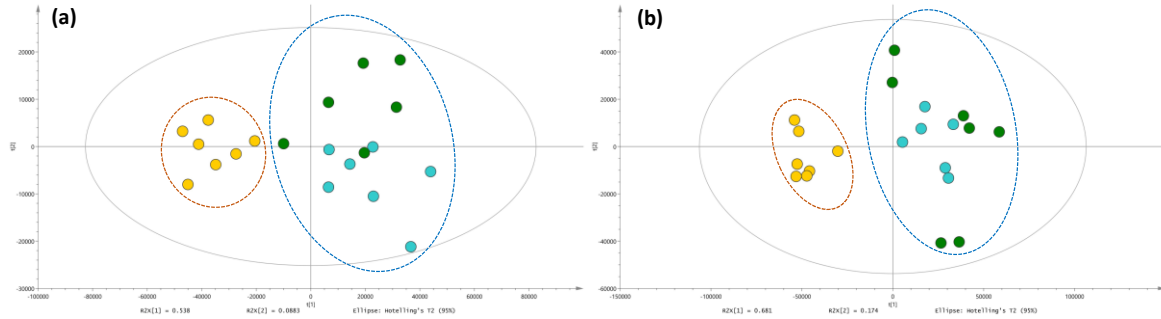
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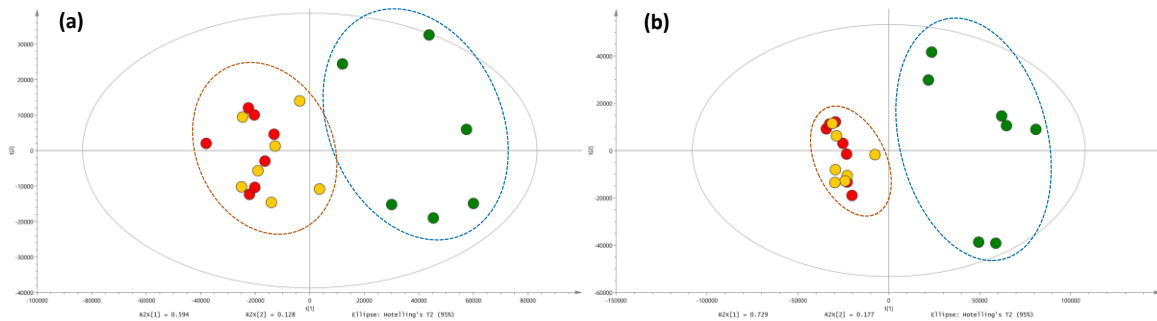
Supplementary Figure S1. Principal component analysis (PCA) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (A) and shoot (B) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. irregularis* MUCL 41833: blue dots; *R. intraradices* MUCL 49410: green dots; *R. clarus* MUCL 46238-M^{clarus}: red dots).



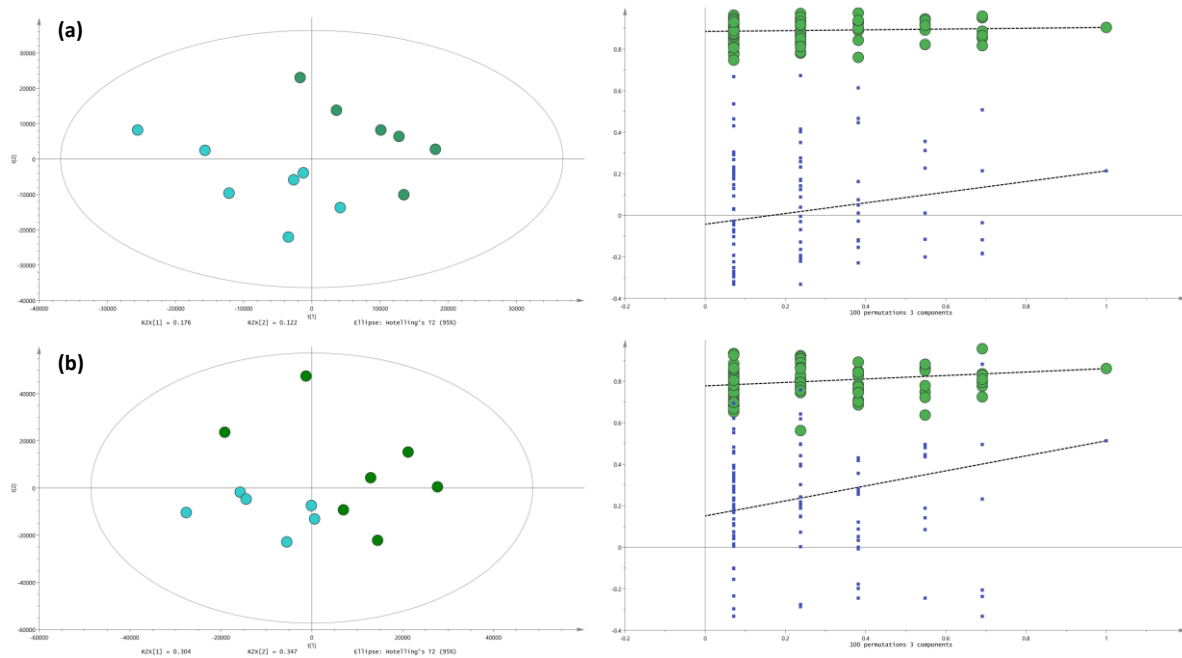
Supplementary Figure S2. Principal component analysis (PCA) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. irregularis* MUCL 41833: blue dots; *R. intraradices* MUCL 49410: green dots; *R. aggregatus* MUCL 49408: yellow dots).



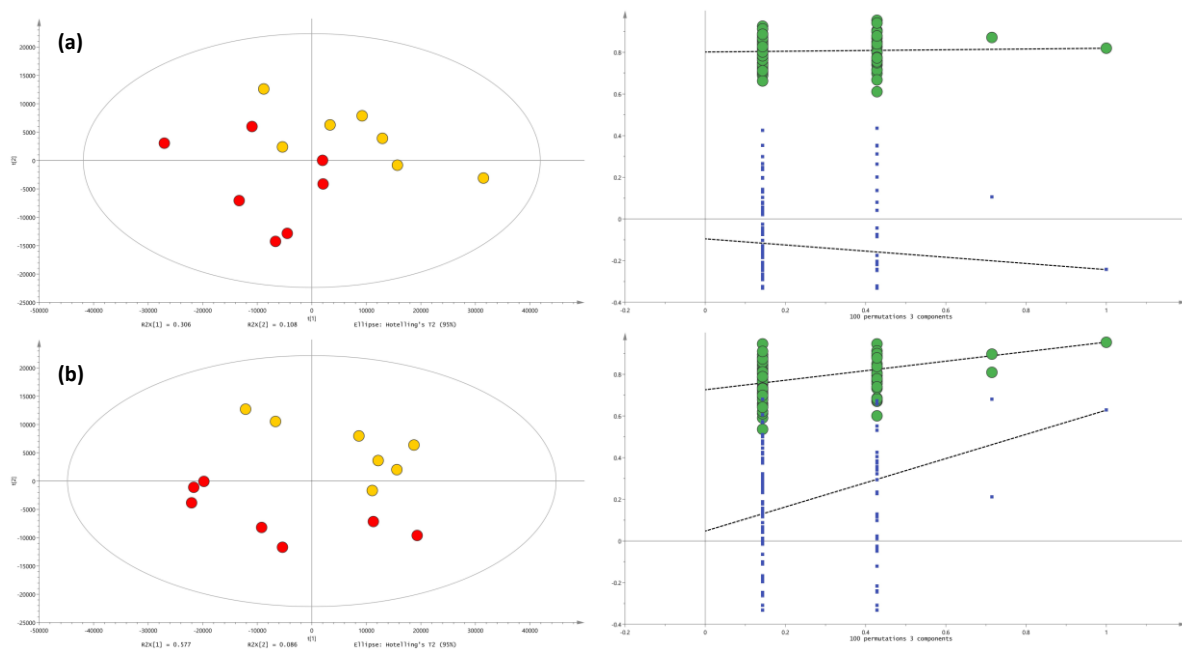
Supplementary Figure S3. Principal component analysis (PCA) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. intraradices* MUCL 49410-M^{intra}: green dots; *R. clarus* MUCL 46238-M^{clarus}: red dots; *R. aggregatus* MUCL 49408-M^{aggreg}: yellow dots).



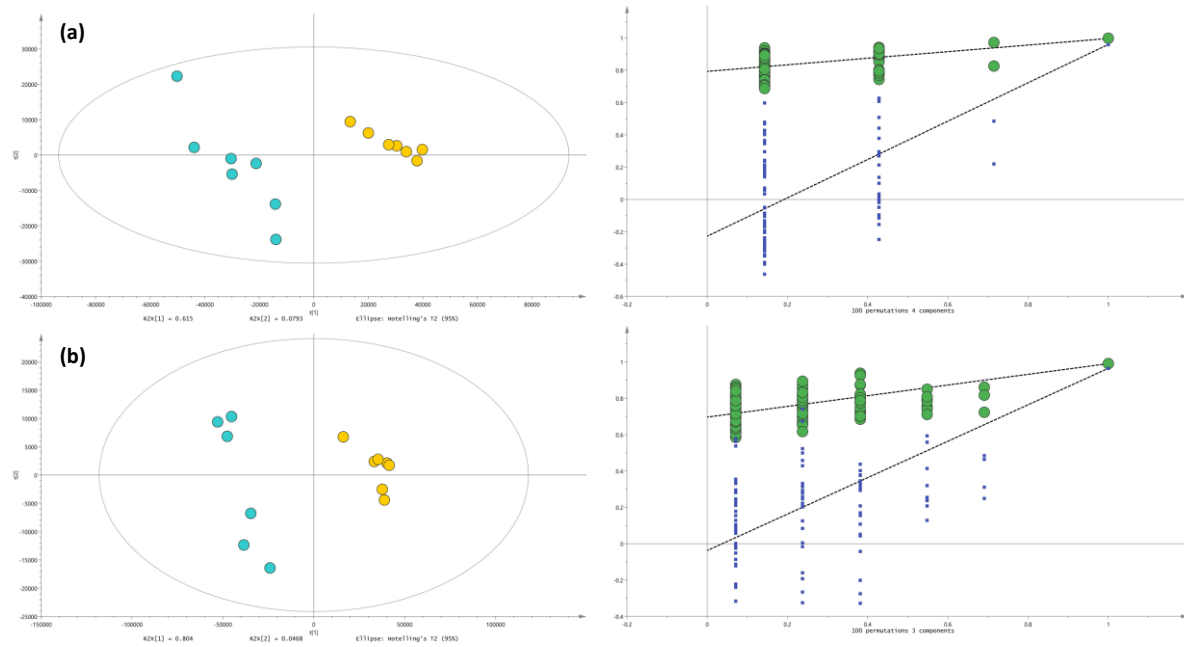
Supplementary Figure S4. Partial least square analysis – Discriminant analysis (PLS-DA) and permutation test (100 rearrangements) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the S-H cultivation system (*R. irregularis* MUCL 41833: blue dots; *R. intraradices* MUCL 49410: green dots).



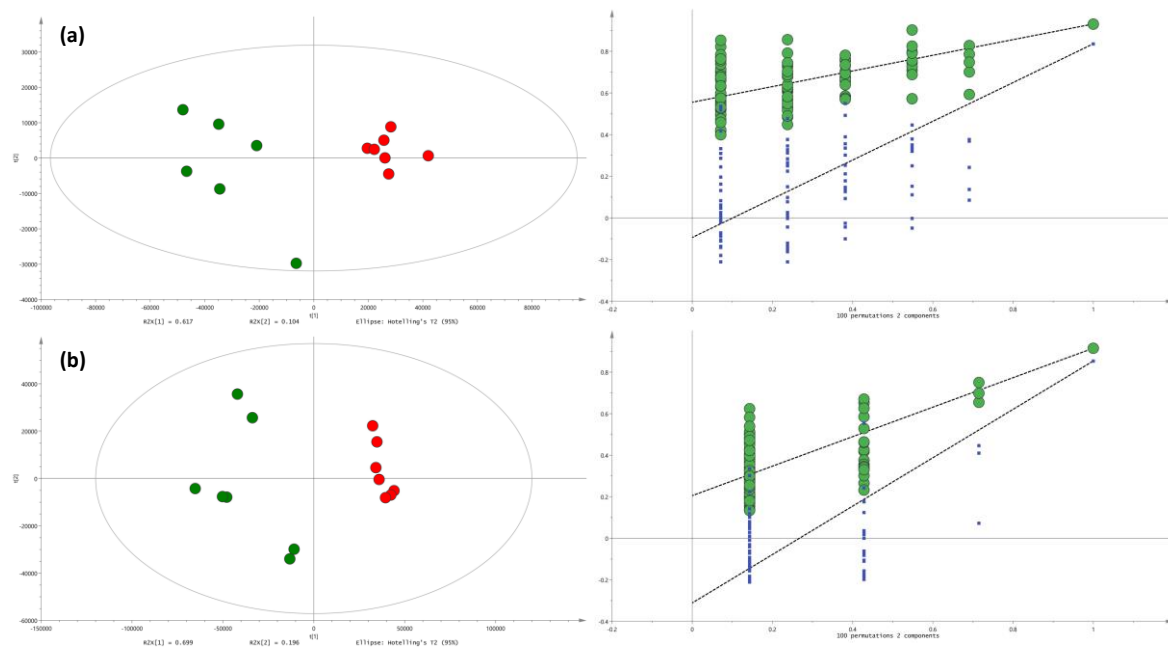
Supplementary Figure S5. Partial least square analysis – Discriminant analysis (PLS-DA) and permutation test (100 rearrangements) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. clarus* MUCL 46238: red dots; *R. aggregatus* MUCL 49408: yellow dots).



Supplementary Figure S6. Partial least square analysis – Discriminant analysis (PLS-DA) and permutation test (100 rearrangements) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. irregularis* MUCL 41833: blue dots; *R. aggregatus* MUCL 46238: yellow dots).



Supplementary Figure S7. Partial least square analysis – Discriminant analysis (PLS-DA) and permutation test (100 rearrangements) – Comparison of UHPLC-HRMS metabolic profiles from *A. officinalis* root (a) and shoot (b) samples associated with four different AMF species after 9 days of growth in the semi-hydroponic cultivation system (*R. intraradices* MUCL 49410: green dots; *R. clarus* MUCL 4623: red dots).



Supplementary Table S1. Evolution of AMF-root colonization and total fresh weight (TFW) of *A. officinalis* associated to one AMF species (*R. irregularis* MUCL 41833 –M^{irreg}, *R. intraradices* MUCL 49410 –M^{intra}, *R. clarus* MUCL 46238 –M^{clarus} and *R. aggregatus* MUCL 49408 –M^{aggreg}) before (T0) and after 9 days (T1) of growth in the S-H cultivation system.

AMF treatments	Harvest time	AMF-root colonization (%)		Fresh weight (g)
		TC	AC	TFW
MUCL 41833-M ^{irreg}	T0	76 ± 3	14 ± 3	5.74 ± 1.5
MUCL 49410-M ^{intra}	T0	91 ± 3	22 ± 3	7.78 ± 1.5
MUCL 46238-M ^{clarus}	T0	86 ± 3	18 ± 3	4.95 ± 1.5
MUCL 49408-M ^{aggreg}	T0	85 ± 3	17 ± 3	7.73 ± 1.5
MUCL 41833-M ^{irreg}	T1	63 ± 3	6 ± 3	5.63 ± 1.5
MUCL 49410-M ^{intra}	T1	70 ± 3	12 ± 3	8.66 ± 1.5
MUCL 46238-M ^{clarus}	T1	61 ± 3	6 ± 3	5.31 ± 1.5
MUCL 49408-M ^{aggreg}	T1	68 ± 3	10 ± 3	8.39 ± 1.5

The parameters measured are expressed as mean ± standard errors (SE) of 7 (T0) and 7 (T1) replicates per each AMF treatment.