Appendix. Calculations for the applied doses

For the in vitro and field test by topical application, 50 µL was administered to each larva. First, a stock solution was prepared at 0.3 mg μL^{-1}, from this and applying the formulae C1V1=C2V2 (C1: concentration of the most concentrated solution, and V1: volume of the aliquot of C1 to afford and obtain C2; and C2 is the concentration in the diluted solution and V2 is the final volume of the diluted solution) the desired concentration was prepared, e.g. for 10 larvae and four replicates (40 doses of 50 µL) 2000 µL were need, then for the concentration of 0.20 mg μL^{-1} 1334 µL of stock solution were taken and 666 µL of water were added.

For spraying, the stock solution was the same as in vitro. In addition, we previously determined that with each shot the manual sprayer released 0.50 ± 0.06 mL. Applying C1V1=C2V2, for 40 mL of solution at 0.10 mg μL^{-1}, 13.3 mL of stock solution and 26.7 mL of distilled water were taken to reach the desired concentration, and for 40 plants 20 mL were used. Then 10 mL of this dissolution plus 10 mL of water were sufficient to prepare 20 mL of solution at 0.05 mg μL^{-1}.

Illustration of the methodological process

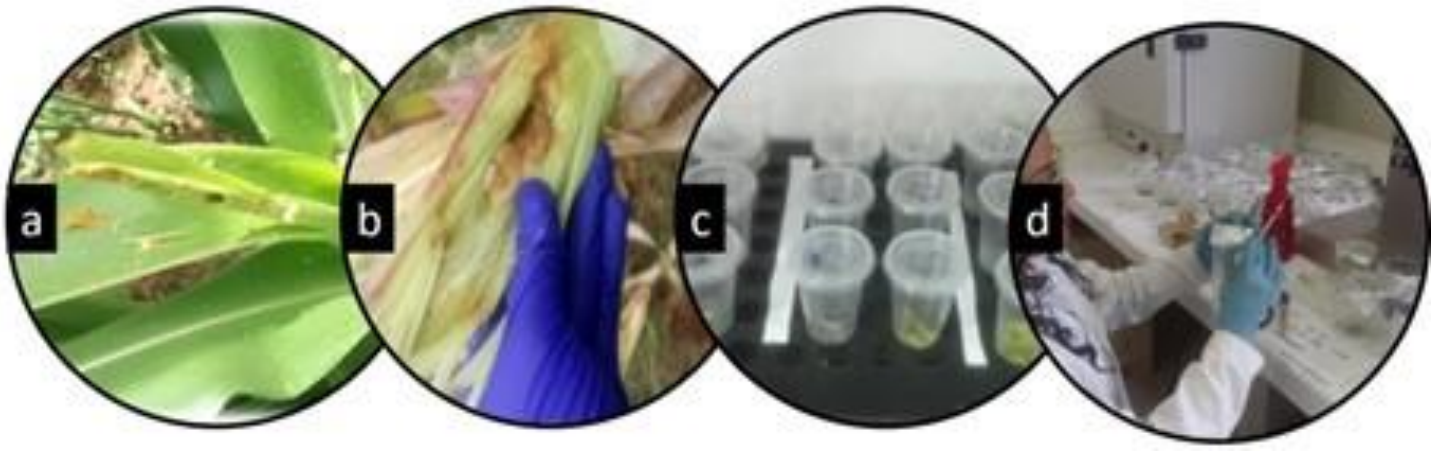

Figure S1. Larvae collection (a and b), acclimatization of the larvae (c), and in vitro testing (d)

Alkylamides identification

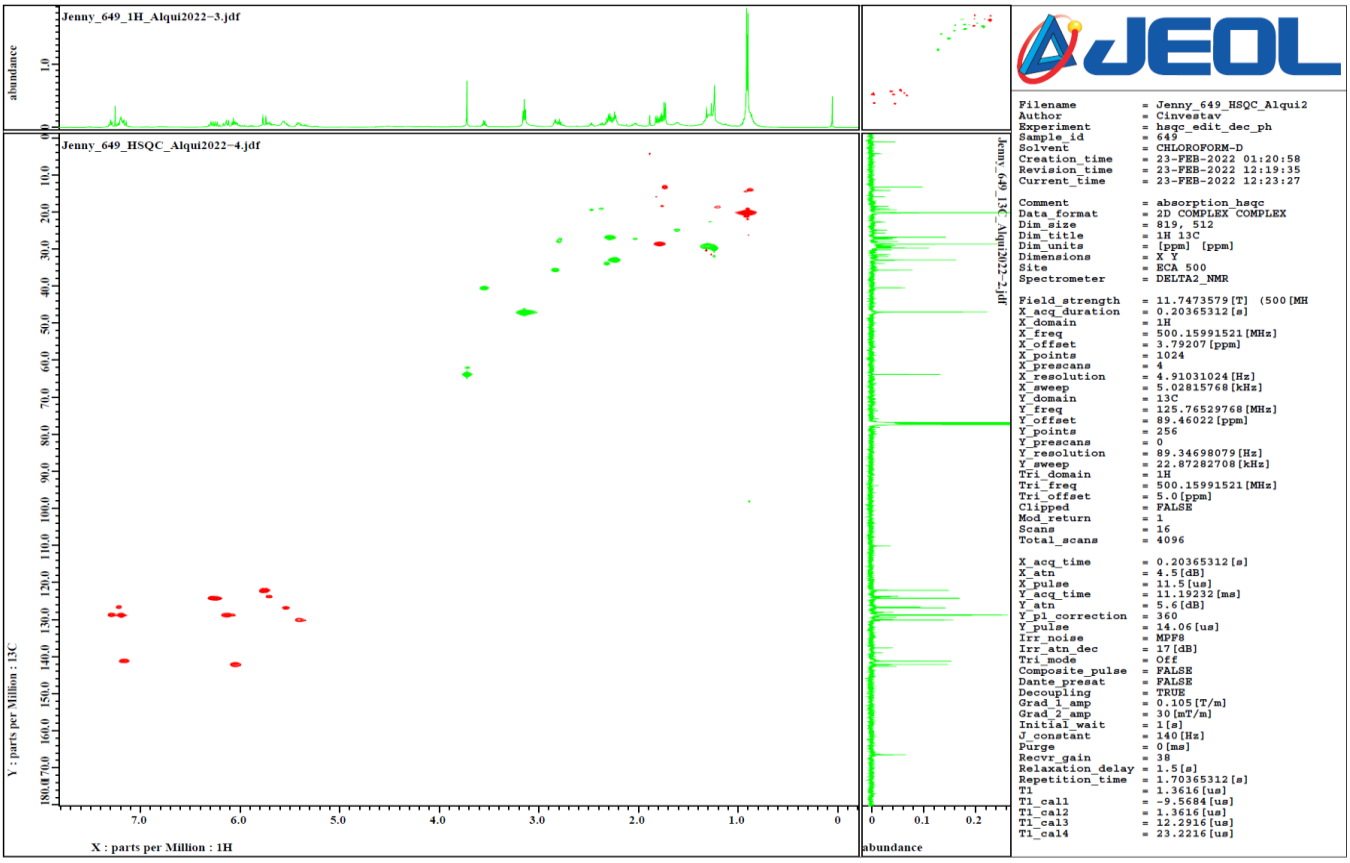

Figure S2. HSQC NMR (heteronuclear single quantum correlation spectroscopy nuclear magnetic resonance) spectrum (500 MHz) of semi-purified N-isobutyl-(2E,4E,8Z,10E/Z)-dodecatetraenamides of *Salmea scandens.*

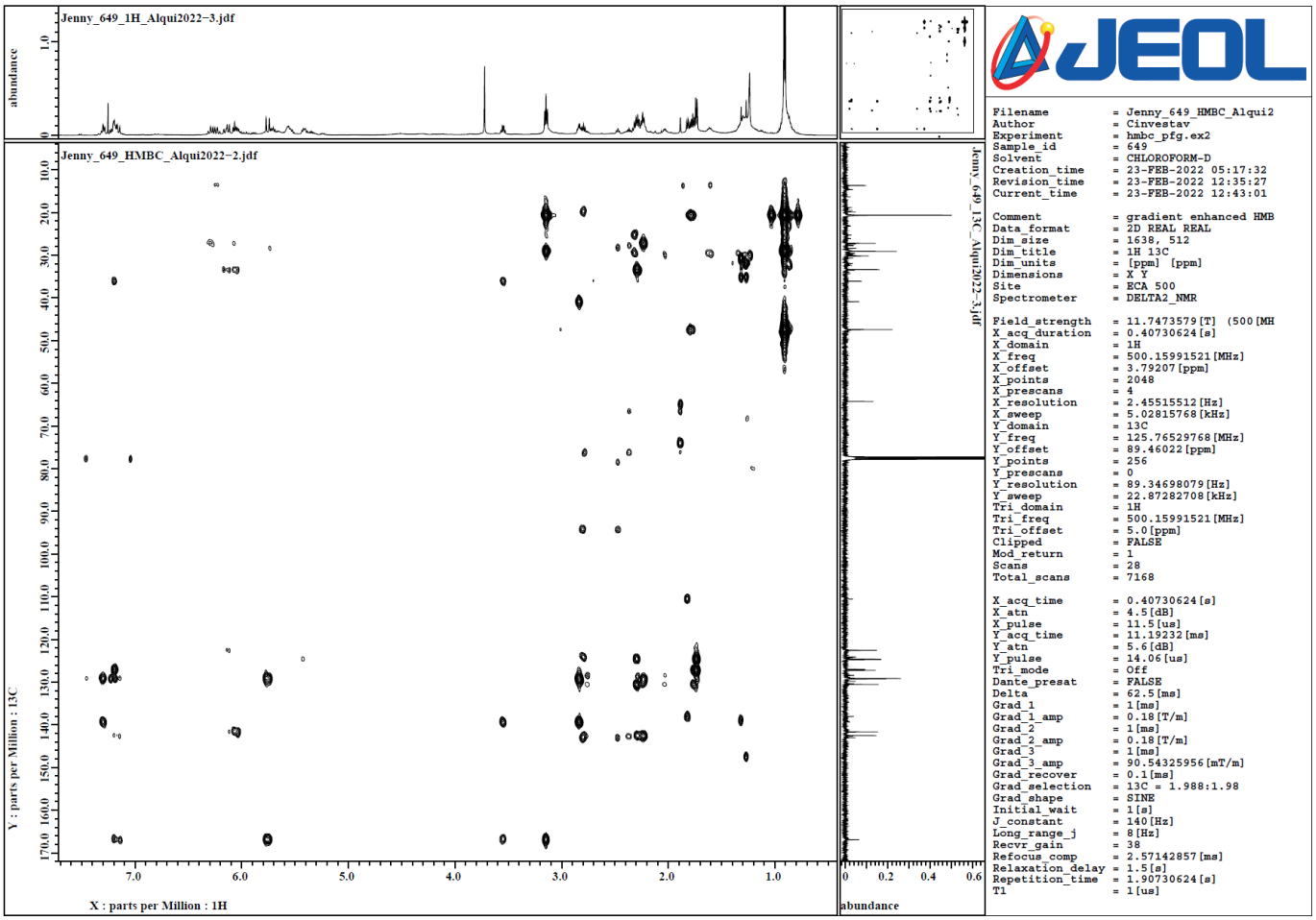

Figure S3. HMBC NMR (heteronuclear multiple bond correlation nuclear magnetic resonance) spectrum (500 MHz) of semi-purified N-isobutyl-(2E,4E,8Z,10E/Z)-dodecatetraenamides of *Salmea scandens*.

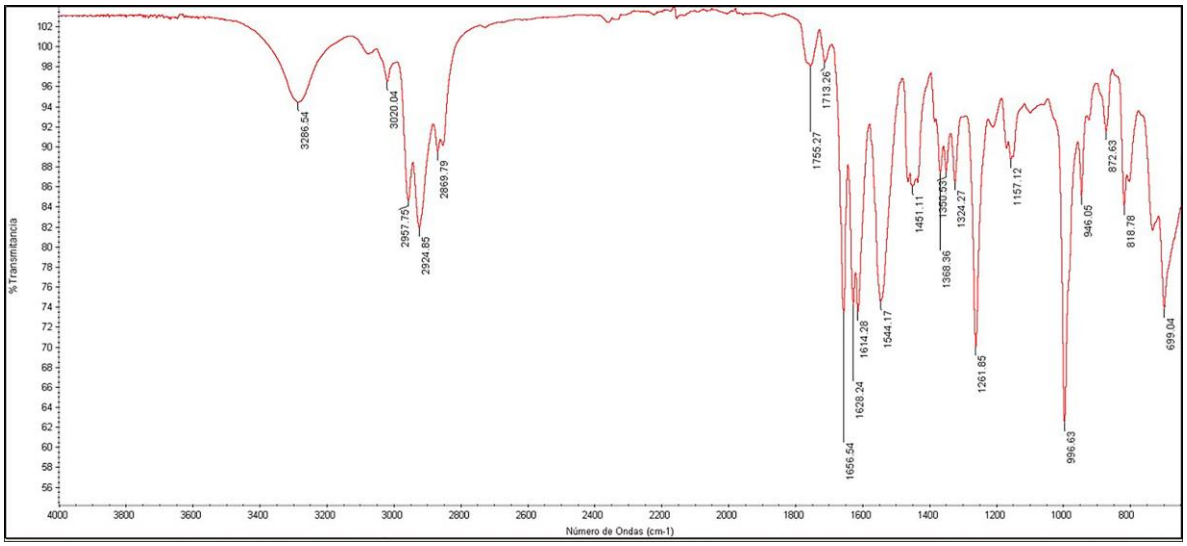

Figure S4. FTIR-ATR (Fourier transform infrared- Attenuated total reflectance) spectra of semi-purified N-isobutyl-(2E,4E,8Z,10E/Z)-dodecatetraenamides present in *S. scandens*.