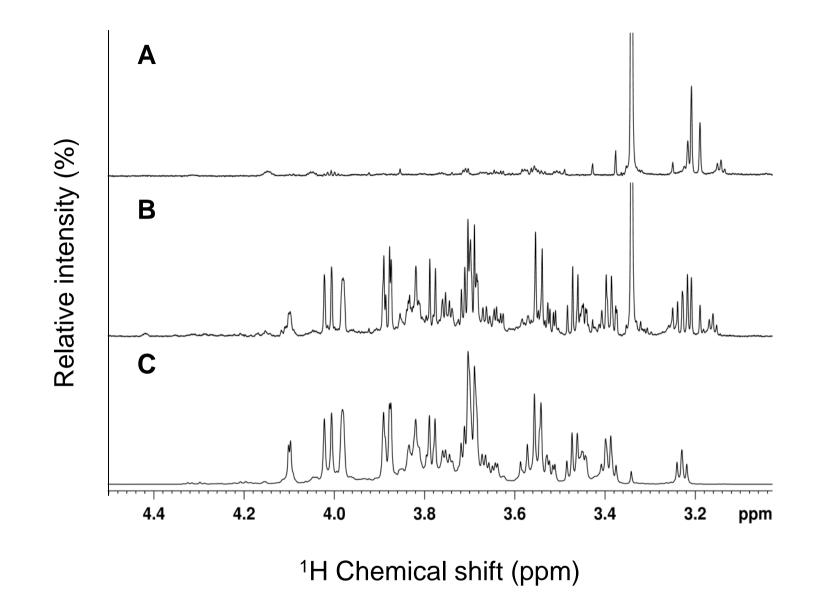
## SUPPLEMENTARY MATERIAL

*LC-MS quality control validation*. LC-MS quality control (QC) samples for both 3- and 7-day old samples clustered centrally between treatment groups and exhibited very little drift over time (Fig. 5a,b). Assessment of the peak areas of key ions within QC samples from 3-day old wasps found that 88.24% of ions displayed RSDs within the acceptability threshold for analytical stability. QC ions displayed an average peak area RSD of 14.05% (range: 2.62 - 51.39%) and an average retention time RSD of 0.9% (range: 0.14 - 4.3%). Assessment of retention time RSDs within QC samples found that all ions displayed RSDs within the acceptability threshold for experimental stability (<30% RSD). QC samples from 7-day old wasps had an average key ion peak area RSD of 15.28% (range: 3.02 - 29.00%). Retention time RSDs averaged 1.43% (range: 0.32 - 7.38%). In total, 90.9% of key ions RSDs and 100% of retention time RSDs were within the acceptability



**Figure S1**. Comparisons of wasp NMR spectral region 4.5 - 3.0 ppm (a) Representative 7-day old starved wasp spectra (b) Representative 7-day old honey-fed wasp spectra (c) Raw honey spectra. The presence of highly conserved honey resonances was considered to confirm ingestion of