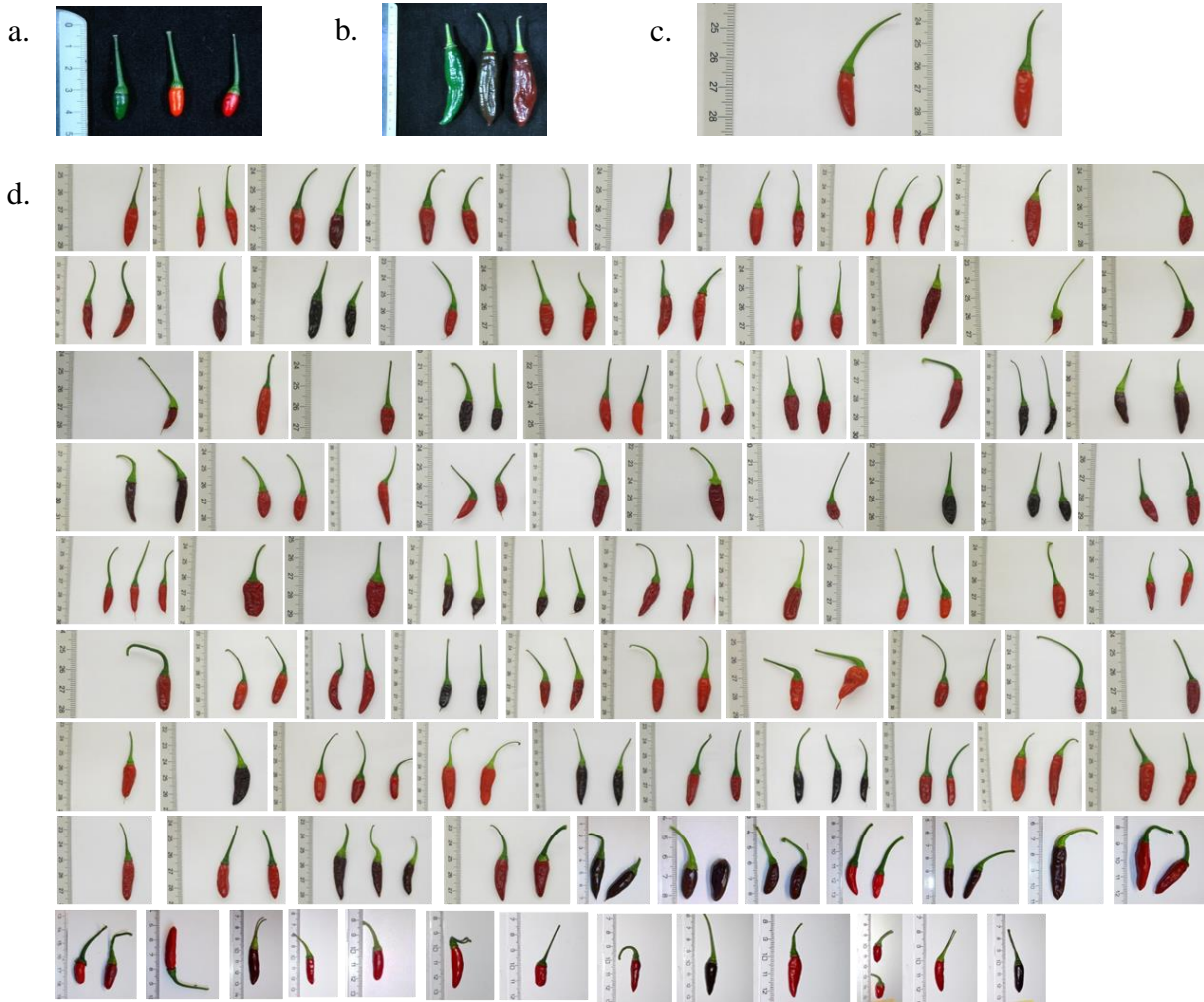


**Supplemental Figure 1** A crossing scheme to develop F2 plants from *C. annuum* AC1979 (no. 19) and *C. chinense* No. 4661 Selection (no. 18). Two homogenous F1 plants were obtained by crossing two pepper accessions. Each of F1-plants was self-pollinated to produce F2 progeny. The representation of plants shown in the scheme is not in true scaled

**Supplemental Figure 2** Variation in fruit morphological characters of: a, *C. annuum* AC1979 (no. 19); b, *C. chinense* No. 4661 Selection (no. 18); c, F1 plants; and d, F2 plants

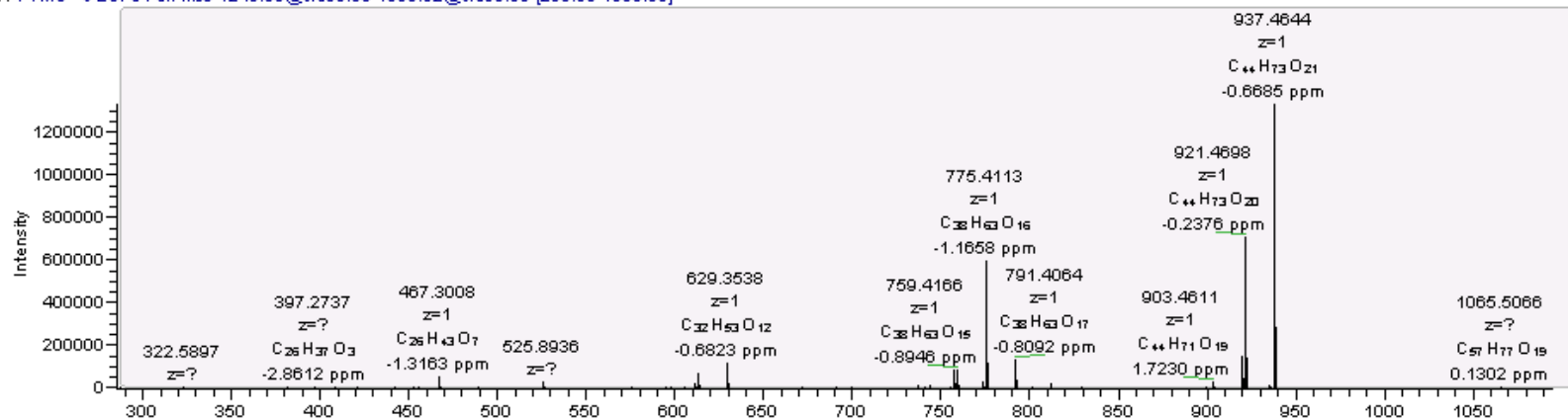


# Supplemental Figure 3 MS<sup>n</sup> fragmentation pattern of Capsianoside VIII and IX using LTQ-Orbitrap FTMS in negative ionization mode

## Capsaicinoid IX

F010024#1221 RT: 24.55 AV: 1 NL: 1.34E6

T: FTMS - e ESI d Full ms3 1245.56@cid35.00 1083.52@cid35.00 [285.00-1095.00]



## Capsaicinoid VIII

F010024#1333 RT: 26.93 AV: 1 NL: 5.79E6

T: FTMS - e ESI d Full ms2 1083.52@cid35.00 [285.00-1095.00]

