

Supplementary Fig 1. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different off-flavor associated compounds in ADM pea.

**SUPPLEMENTARY MATERIAL**



Supplementary Fig 2. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different off-flavor associated compounds in Vitessence pea.



Supplementary Fig 3. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different off-flavor associated compounds in chickpea.



Supplementary Fig 4. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different off-flavor associated compounds in faba.



Supplementary Fig 5. Production (level of increase compared to the unfermented sample, in signal to noise) of desirable dairy-associated flavor compounds in ADM pea.



Supplementary Fig 6. Production (level of increase compared to the unfermented sample, in signal to noise) of desirable dairy-associated flavor compounds in Vitessence pea.



Supplementary Fig 7. Production (level of increase compared to the unfermented sample, in signal to noise) of desirable dairy-associated flavor compounds in chickpea.



Supplementary Fig 8. Production (level of increase compared to the unfermented sample, in signal to noise) of desirable dairy-associated flavor compounds in faba.



Supplementary Fig 9. Production (level of increase compared to the unfermented sample, in signal to noise) of ethanol and esters by the heterofermentative Leuconostoc in ADM pea.



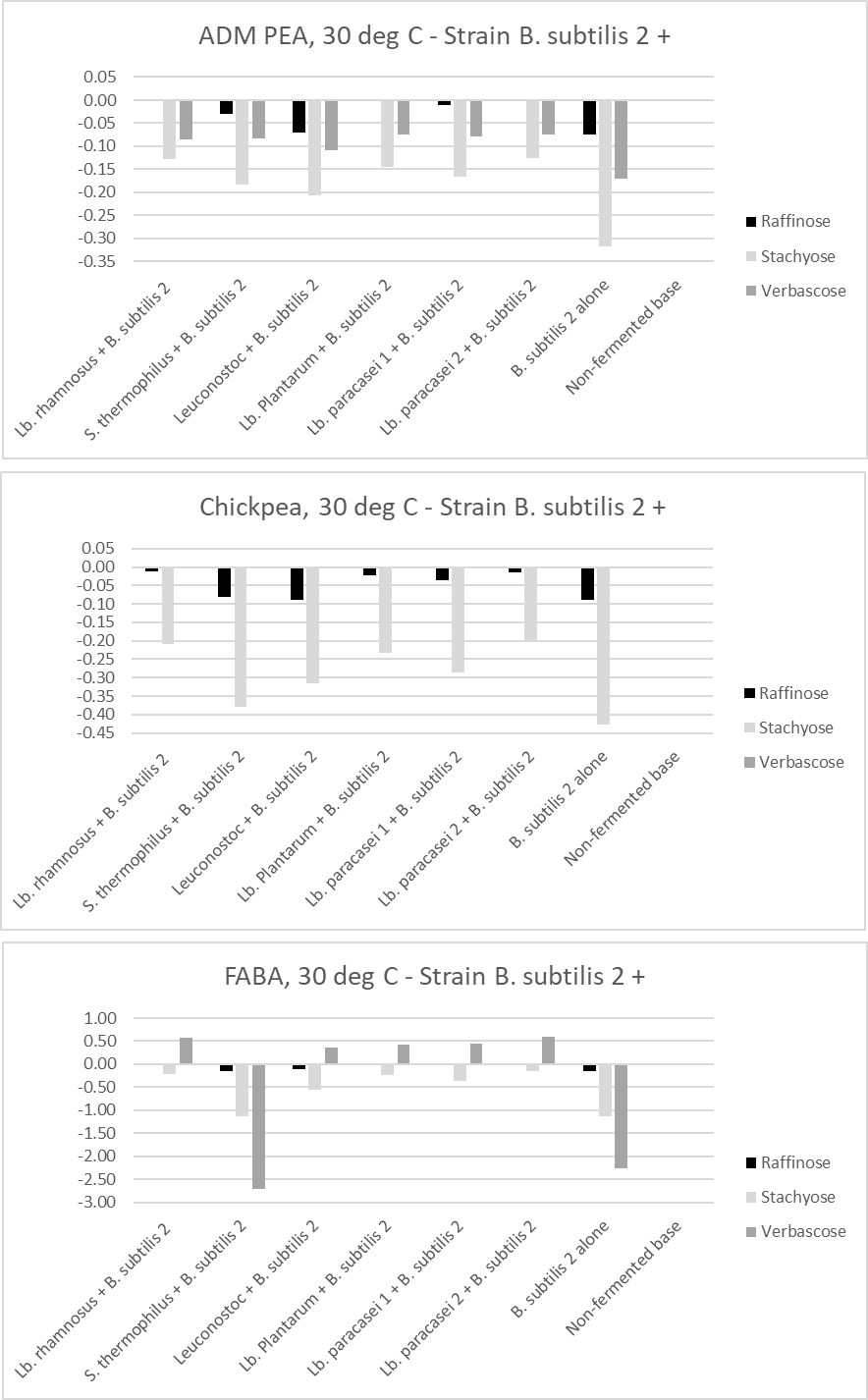
Supplementary Fig 10. Production (level of increase compared to the unfermented sample, in signal to noise) of ethanol and esters by the heterofermentative Leuconostoc in Vitessence pea.



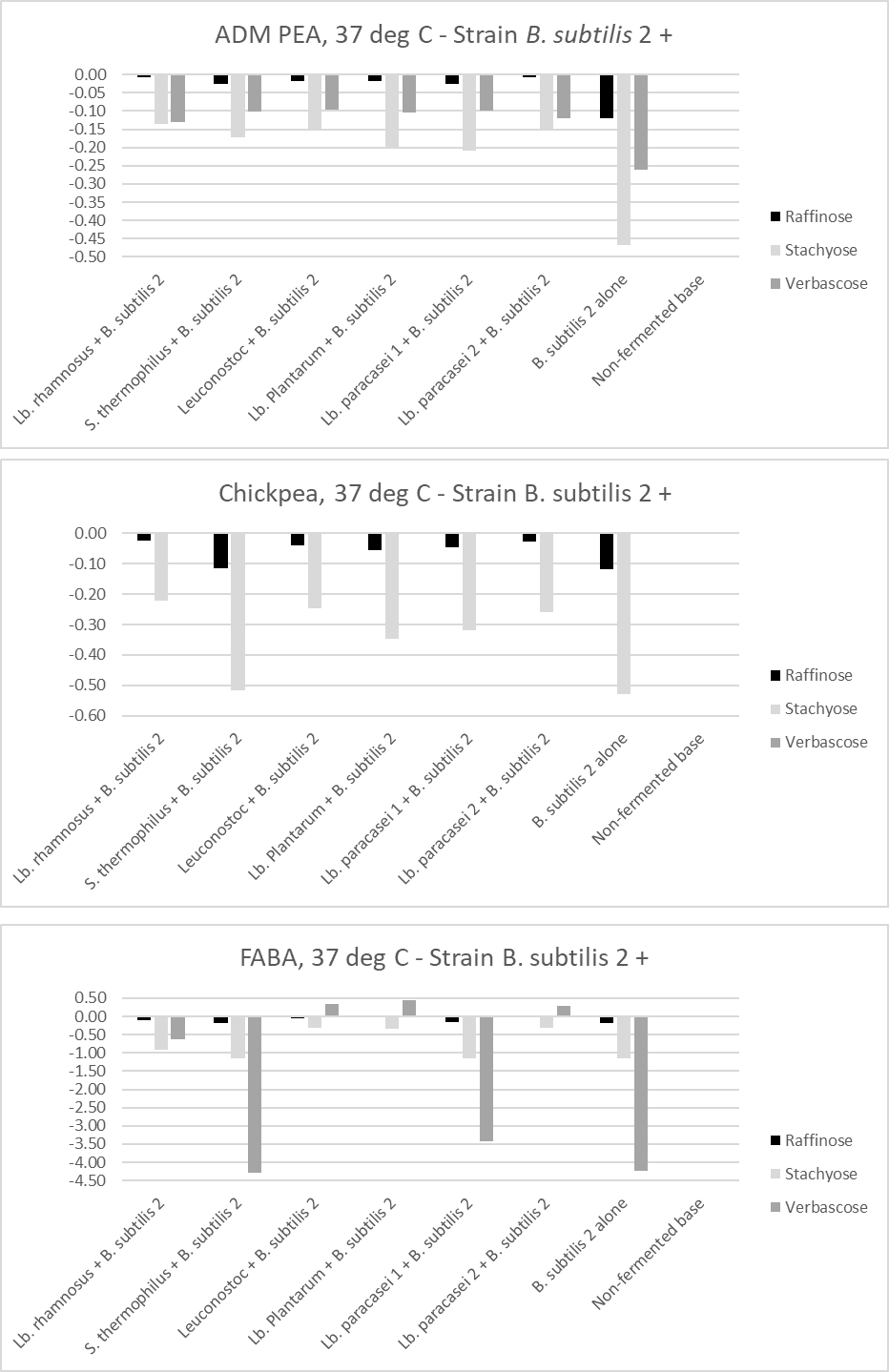
Supplementary Fig 11. Production (level of increase compared to the unfermented sample, in signal to noise) of ethanol and esters by the heterofermentative Leuconostoc in chickpea.



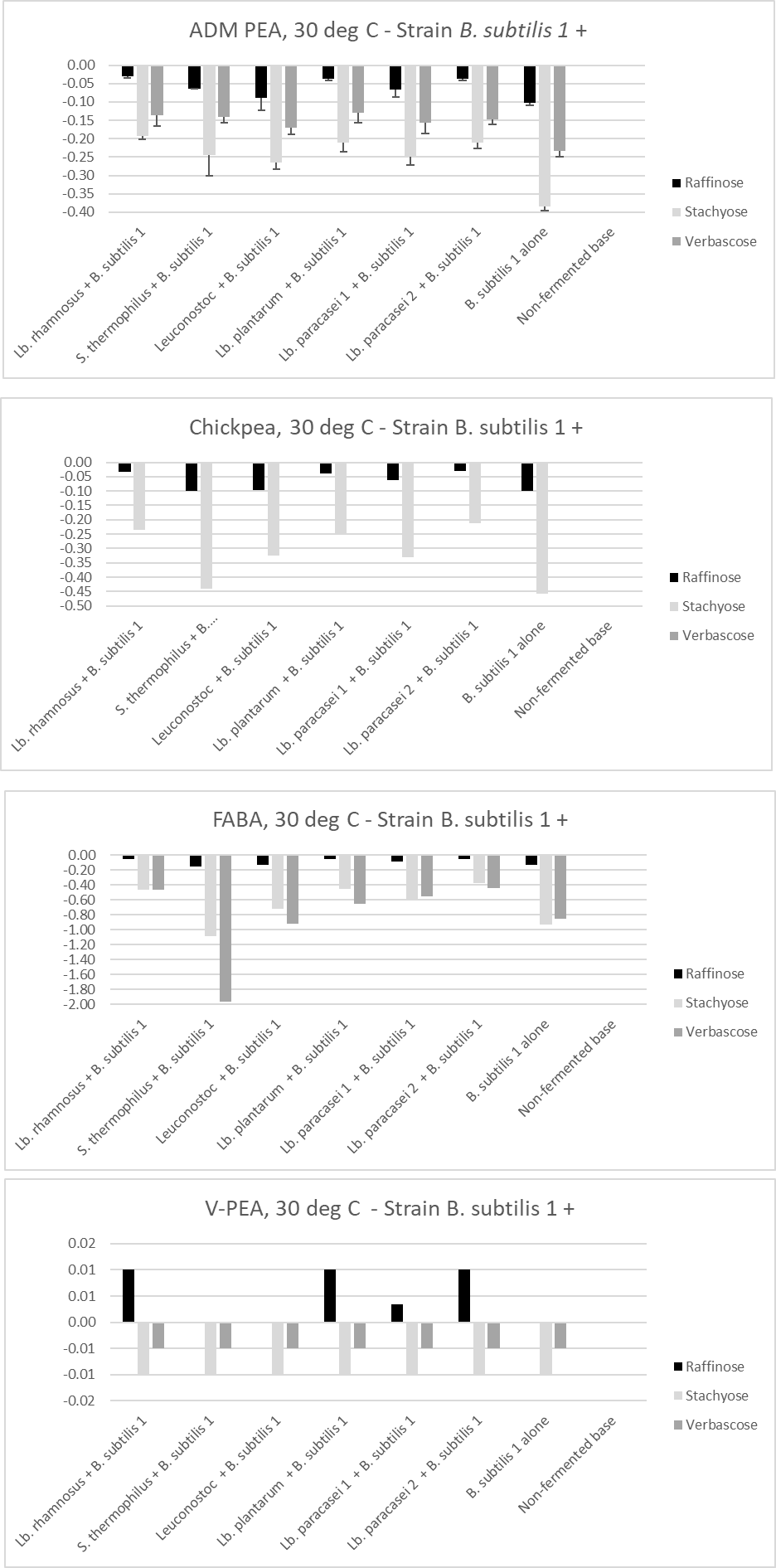
Supplementary Fig 12. Production (level of increase compared to the unfermented sample, in signal to noise) of ethanol and esters by the heterofermentative Leuconostoc in faba



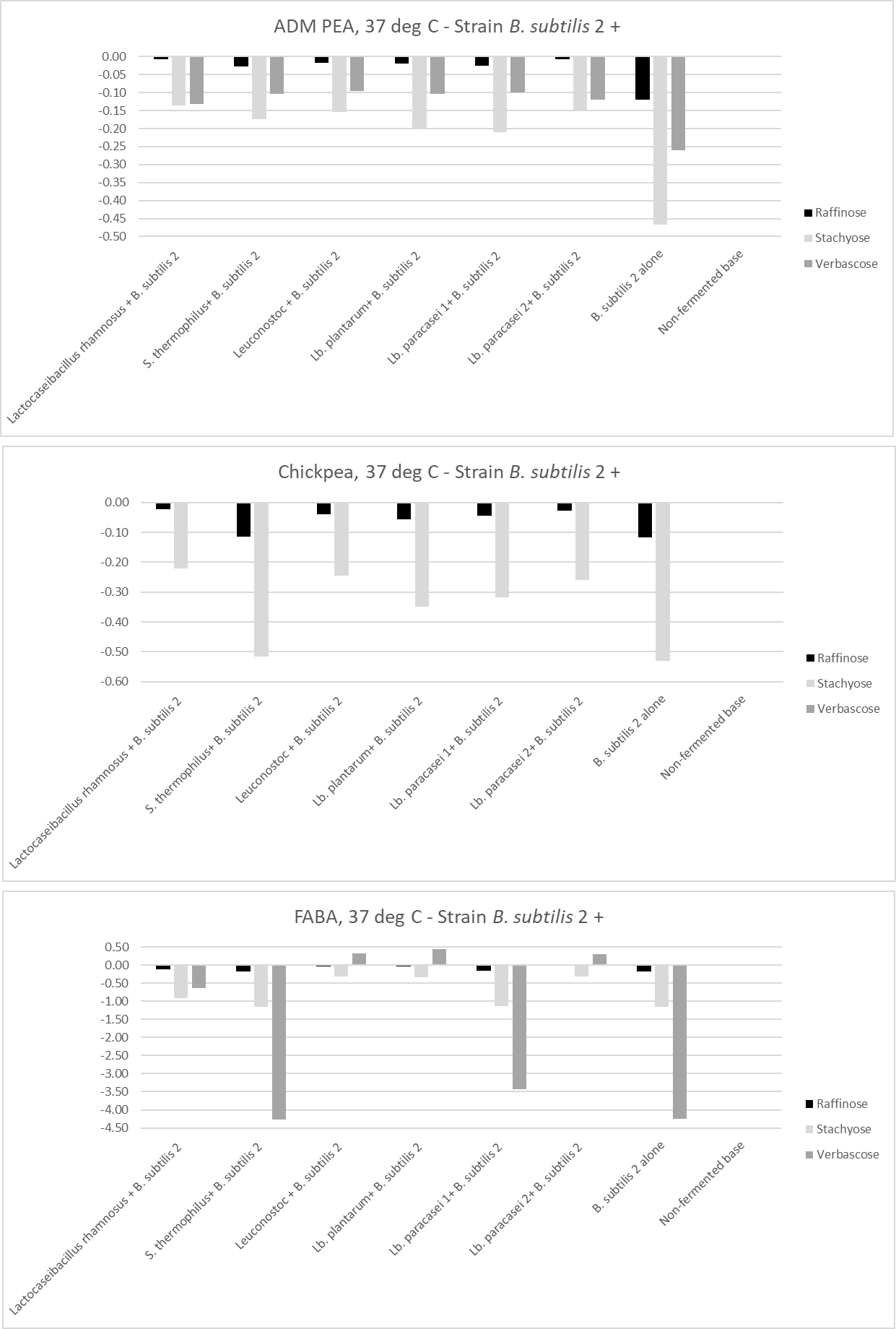
Supplem. Fig 13. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different RFOs at 30C.



Supplem. Fig 14. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different RFOs at 37C.



Supplem. Fig 15. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different RFOs at 30C.



Supplem. Fig 16. Degradation (level of decrease compared to the unfermented sample, in signal to noise) of different RFOs at 37C.

**Supplementary Fig. 17**. The absorbance spectrum of the n-hexane extract of the *Lb. fragifolii* strain. Notice the signature peaks at around 414 nm, 436 nm and 464 nm.