

Table S5. ANOVA for each individual metabolite, relating to their content in the leaves of emmer and durum wheat grown under starvation and optimal N conditions.

| | G | N | G x N |
|-------------------------------|-----|-----|-------|
| valine | ns | ns | *** |
| glutamic acid | *** | *** | *** |
| Alanine | ns | ns | *** |
| β-alanine | ns | ns | *** |
| Serine | ns | ns | ** |
| glycine | ns | ns | ns |
| Threonine | ns | ns | * |
| aspartic acid | ** | * | *** |
| asparagine | ns | ns | ns |
| thryptophan | * | ns | ns |
| GABA | ns | ns | ** |
| citric acid | ** | ** | ** |
| aconitic acid | ** | ns | *** |
| isocitric acid | ns | ns | ns |
| succinic acid | ns | ns | * |
| fumaric acid | ns | ns | ** |
| malic acid | ns | ns | ** |
| shikimic acid | * | ns | ** |
| quinic acid | ns | ns | *** |
| gluconic acid | ns | ns | ns |
| saccharic acid | ** | * | ** |
| oxalic acid | ns | ns | ns |
| phosphate | ns | ns | ns |
| xylose - lyxose - threalose | ns | ns | ns |
| ribose | ns | ns | ** |
| Fructose | ns | ns | ns |
| mannose - galactose - glucose | ns | ns | ns |
| sucrose | ns | ns | ns |
| isomaltose | ns | ns | * |
| maltose - turanose | ns | ns | ** |
| lactulose | ns | ns | ns |
| maltitol | *** | *** | *** |
| glycerol | ns | ns | ns |
| mannitol | ns | ns | ns |
| sorbitol | ns | ns | ns |
| myo-inositol | ns | ns | ** |
| hexadecanoic acid | ns | ns | ns |
| 1-octacosanol | ns | ns | ns |
| campsterol | ns | ns | ns |
| stigmasterol | ns | ns | ns |
| β-sitosterol | ns | ns | ns |

n.s., not significant; *, $P \leq 0.05$, **, $P \leq 0.01$; ***, $P \leq 0.001$