

Supplementary table S1: Relative composition of TAG molecular types during five developing stages of tuber

| | 35DAS | 50DAS | 70DAS | 90DAS | 120DAS |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| TAG(16:0_18:3_17:0) | 0.007732874 | 0.008346907 | 0.00371452 | 0.005550724 | 0.002595366 |
| TAG(10:0_18:1_18:2) | 0.00147716 | 0.008939086 | 0.000125985 | 0.000492966 | 0.000323611 |
| TAG(10:0_18:2_18:2) | 0.009427293 | 0.000258532 | 0.000114312 | 0.000362119 | 0.000124317 |
| TAG(12:1e_6:0_18:2) | 0.007924751 | 0.000331363 | 0.000249001 | 0.000225341 | 0.000202425 |
| TAG(12:1e_6:0_18:3) | 0.006913365 | 0.000197531 | 0.00020841 | 0.000333573 | 0.000183596 |
| TAG(14:0_18:2_18:2) | 0.008383147 | 0.009988825 | 0.003902653 | 0.009709753 | 0.00303566 |
| TAG(15:0_16:0_18:1) | 0.009346774 | 0.006913825 | 0.001684883 | 0.002594418 | 0.001000718 |
| TAG(15:0_16:0_18:2) | 0.005363653 | 0.002470694 | 0.003678287 | 0.001087193 | 0.001723628 |
| TAG(15:0_16:1_18:2) | 0.009649319 | 0.002047967 | 0.000439852 | 0.000550369 | 0.000467888 |
| TAG(15:0_18:1_18:2) | 0.007310449 | 0.00941106 | 0.005175335 | 0.007715347 | 0.003841157 |
| TAG(15:0_18:2_18:2) | 0.009399486 | 0.008613968 | 0.00204756 | 0.001090246 | 0.001625932 |
| TAG(15:0_18:2_18:3) | 0.001754137 | 0.001793853 | 0.001211989 | 0.001129811 | 0.000900001 |
| TAG(15:0_18:3_18:3) | 0.007186474 | 0.000539455 | 0.000842662 | 0.000420153 | 0.000504773 |
| TAG(16:0_10:0_10:1) | 0.00366291 | 0.000392049 | 0.000217063 | 0.000557084 | 0.000265054 |
| TAG(16:0_10:0_18:1) | 0.009635033 | 0.005809065 | 0.00017387 | 0.000744787 | 0.000366214 |
| TAG(16:0_10:1_10:1) | 0.004129927 | 0.000130841 | 0.000146498 | 0.001473957 | 8.89263E-05 |
| TAG(16:0_12:0_18:1) | 0.005239627 | 0.000747024 | 0.000236416 | 0.000755821 | 0.000448683 |
| TAG(16:0_12:0_18:2) | 0.00935167 | 0.000816499 | 0.000468836 | 0.000703096 | 0.000545696 |
| TAG(16:0_12:3_14:4) | 0.009128174 | 0.003197488 | 9.60442E-05 | 0.000111342 | 0.00010445 |
| TAG(16:0_14:0_18:1) | 0.00581828 | 0.002189943 | 0.001220148 | 0.002852108 | 0.001077831 |
| TAG(16:0_14:1_18:1) | 0.003958124 | 0.001076369 | 0.00052504 | 0.001076881 | 0.000538676 |
| TAG(16:0_14:2_18:1) | 0.002244582 | 0.00077513 | 0.000620443 | 0.000934474 | 0.000502545 |
| TAG(16:0_16:0_24:0) | 0.0097749 | 0.001174315 | 0.000824851 | 0.0007287 | 0.000185758 |
| TAG(16:0_16:0_24:1) | 0.009219123 | 0.00716483 | 0.002735633 | 0.005180737 | 0.002255182 |
| TAG(16:0_17:0_18:1) | 0.004200709 | 0.002829728 | 0.000953027 | 0.002260503 | 0.001106923 |
| TAG(16:0_17:1_18:1) | 0.004014303 | 0.005016011 | 0.00269512 | 0.001073255 | 0.001698867 |
| TAG(16:0_18:1_18:3) | 0.001973443 | 0.000279023 | 0.000209135 | 0.000370819 | 0.000191336 |
| TAG(16:0_18:1_19:0) | 0.005153637 | 0.008718107 | 0.003468631 | 0.002122981 | 0.000940296 |
| TAG(16:0_18:1_21:0) | 0.001545238 | 0.001307153 | 0.001570847 | 0.001561325 | 0.000849397 |
| TAG(16:0_18:1_23:0) | 0.0022221 | 0.001127071 | 0.001657782 | 0.001152387 | 0.000675234 |
| TAG(16:0_18:2_24:0) | 0.001962596 | 0.001446447 | 0.001838648 | 0.000769197 | 0.001779091 |
| TAG(16:0_18:3_18:3) | 0.003642822 | 0.004542689 | 0.00337552 | 0.002318175 | 0.003662189 |
| TAG(16:0_6:0_12:0) | 0.000515578 | 0.000438898 | 0.000413407 | 0.000412674 | 0.000330032 |
| TAG(16:0_6:0_12:1) | 0.004105462 | 0.000278414 | 0.000826872 | 0.000170307 | 0.000433672 |
| TAG(16:0_8:0_23:1) | 0.002774963 | 0.000279018 | 0.000462662 | 0.000238855 | 0.00022407 |
| TAG(16:1_18:1_18:1) | 0.004151824 | 0.000492786 | 0.000156327 | 0.000831752 | 0.000250196 |
| TAG(16:1_18:1_18:2) | 0.004894506 | 0.005943749 | 0.004292807 | 0.004001371 | 0.002181881 |
| TAG(16:1_18:3_18:3) | 0.001548451 | 0.000887414 | 0.000676212 | 0.000331648 | 0.00031112 |
| TAG(18:0_10:0_10:1) | 0.000469827 | 0.002210944 | 0.000121158 | 0.00047376 | 0.000375258 |
| TAG(18:0_6:0_20:4) | 0.000330036 | 0.000299145 | 0.000257796 | 0.000256732 | 0.000206164 |
| TAG(18:1_10:1_10:1) | 0.003553803 | 0.000501805 | 0.000242939 | 0.000844252 | 0.000375711 |
| TAG(18:1_11:1_12:2) | 0.001742427 | 0.000195457 | 0.000107193 | 0.000147391 | 8.55301E-05 |

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| TAG(18:1_18:1_18:3) | 0.002702631 | 0.000438143 | 0.00017942 | 0.000267531 | 0.000204136 |
| TAG(18:1_18:1_21:0) | 0.005885505 | 0.001722992 | 0.000731858 | 0.000808065 | 0.000758975 |
| TAG(18:1_18:1_21:1) | 0.00168878 | 0.001376721 | 0.000804835 | 0.001602425 | 0.000835062 |
| TAG(18:1_18:1_23:0) | 0.004244649 | 0.001344573 | 0.003213625 | 0.001702145 | 0.001078367 |
| TAG(18:1_18:2_22:4) | 0.007095605 | 0.000435168 | 0.000662982 | 0.000444552 | 0.000349469 |
| TAG(18:1_18:2_23:0) | 0.006648414 | 0.001386967 | 0.000981982 | 0.001720878 | 0.001023846 |
| TAG(18:2_10:1_10:1) | 0.008623947 | 0.005567271 | 0.000194779 | 0.000446909 | 0.000233257 |
| TAG(18:2_13:0_18:2) | 0.005005169 | 0.00060099 | 0.000420674 | 0.000454757 | 0.000463557 |
| TAG(18:2_14:1_18:2) | 0.005671515 | 0.002019547 | 0.000922624 | 0.001297321 | 0.000559693 |
| TAG(18:2_14:2_18:2) | 0.009106119 | 0.001291263 | 9.2007E-05 | 0.000202784 | 0.00010006 |
| TAG(18:2_17:1_18:2) | 0.001314833 | 0.003464951 | 0.002493165 | 0.001210429 | 0.000755486 |
| TAG(18:2_18:2_21:0) | 0.005564748 | 0.001673479 | 0.001160793 | 0.0015317 | 0.001184151 |
| TAG(18:2_18:2_23:0) | 0.002242465 | 0.001534706 | 0.001926874 | 0.001665307 | 0.001351408 |
| TAG(18:3_18:2_18:3) | 0.002958345 | 0.003938155 | 0.004138351 | 0.000855997 | 0.001392251 |
| TAG(18:3_18:2_23:0) | 0.004122569 | 0.0004288 | 0.000626284 | 0.000367077 | 0.00040476 |
| TAG(18:4_6:0_16:0) | 0.004566678 | 0.001808315 | 0.000232504 | 0.000263388 | 0.000208753 |
| TAG(19:0_18:1_18:1) | 0.009239407 | 0.007059877 | 0.001564133 | 0.003036945 | 0.001418729 |
| TAG(19:1_18:1_18:1) | 0.006402007 | 0.006980545 | 0.000986084 | 0.001265353 | 0.000758684 |
| TAG(19:1_18:1_18:2) | 0.002707722 | 0.003353952 | 0.000515552 | 0.002545027 | 0.001460596 |
| TAG(19:1_18:2_18:2) | 0.002382845 | 0.001465506 | 0.00135314 | 0.002129753 | 0.00132301 |
| TAG(19:1_18:2_18:4) | 0.009098573 | 0.001671218 | 0.000163511 | 0.000515637 | 0.000152821 |
| TAG(20:1_18:1_18:2) | 0.009639444 | 0.008192689 | 0.003369518 | 0.008131076 | 0.001471342 |
| TAG(20:1_18:2_18:2) | 0.00582542 | 0.005307026 | 0.006968126 | 0.003751214 | 0.001634266 |
| TAG(20:2_18:2_18:2) | 0.008462554 | 0.007189053 | 0.000204839 | 0.000623899 | 0.0001911 |
| TAG(20:3_18:2_18:2) | 0.009251725 | 0.009422104 | 0.000188625 | 0.000218668 | 0.000328598 |
| TAG(22:0_18:2_18:3) | 0.008051827 | 0.001970945 | 0.002858975 | 0.000507196 | 0.000542959 |
| TAG(24:0_18:2_18:3) | 0.006138091 | 0.001044204 | 0.002080029 | 0.001023189 | 0.000402109 |
| TAG(25:0_16:0_16:0) | 0.009218492 | 0.007555047 | 0.000280785 | 0.0001898 | 0.000155411 |
| TAG(25:0_16:0_18:1) | 0.003882224 | 0.005610714 | 0.002688671 | 0.002134632 | 0.001366072 |
| TAG(25:0_18:1_18:1) | 0.009169267 | 0.006436144 | 0.001437584 | 0.002228874 | 0.00117116 |
| TAG(25:0_18:1_18:2) | 0.006237055 | 0.006035269 | 0.000857763 | 0.004657045 | 0.001073182 |
| TAG(25:0_18:2_18:2) | 0.008854531 | 0.004979434 | 0.001428072 | 0.002159993 | 0.002414096 |
| TAG(26:0_16:0_16:0) | 0.009028548 | 0.008347793 | 0.000302058 | 0.001508606 | 0.00075668 |
| TAG(26:0_16:0_18:1) | 0.013079063 | 0.005822774 | 0.004893442 | 0.003213608 | 0.001707823 |
| TAG(26:0_18:0_18:1) | 0.008542857 | 0.00805946 | 0.002363105 | 0.003124148 | 0.00111876 |
| TAG(26:0_18:2_18:3) | 0.005395966 | 0.003337223 | 0.004555879 | 0.001137621 | 0.002018137 |
| TAG(27:0_16:0_18:1) | 0.009355308 | 0.003404114 | 0.000944956 | 0.000405959 | 0.000276526 |
| TAG(27:0_18:0_18:1) | 0.009376369 | 0.012701259 | 0.000179037 | 0.00047684 | 0.00028278 |
| TAG(27:0_18:1_18:1) | 0.007553999 | 0.008673398 | 0.003297204 | 0.004166486 | 0.001886822 |
| TAG(27:0_18:1_18:2) | 0.003472736 | 0.005100523 | 0.003063699 | 0.002674093 | 0.001805026 |
| TAG(27:0_18:2_18:2) | 0.009385888 | 0.004468896 | 0.00337042 | 0.002114832 | 0.001516066 |
| TAG(28:0_18:1_18:1) | 0.007785382 | 0.012587326 | 0.004023149 | 0.00331025 | 0.001355923 |
| TAG(28:0_18:1_18:2) | 0.005811236 | 0.014953981 | 0.004076217 | 0.001887252 | 0.002190589 |

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| TAG(28:0_18:2_18:2) | 0.008400777 | 0.00704336 | 0.001653665 | 0.001216526 | 0.000618854 |
| TAG(29:0_18:1_18:2) | 0.009189863 | 0.009391434 | 0.000169921 | 8.08722E-05 | 0.000189322 |
| TAG(30:0_16:0_18:1) | 0.009174662 | 0.010671394 | 0.000738456 | 0.000415003 | 0.000282543 |
| TAG(6:0_12:0_18:1) | 0.00811279 | 0.015065914 | 0.000321331 | 0.000379712 | 0.000324942 |
| TAG(6:0_12:0_18:3) | 0.009088504 | 0.010739015 | 0.000155152 | 7.34495E-05 | 4.31377E-05 |
| TAG(6:0_12:1_18:2) | 0.010878023 | 0.007211263 | 0.000829445 | 0.000174555 | 0.000541087 |
| TAG(6:0_6:0_6:0) | 0.009184195 | 0.015901566 | 0.000407273 | 7.2361E-05 | 0.000243999 |
| TAG(8:0_18:1_18:1) | 0.008804984 | 0.006510249 | 0.0001914 | 0.00038241 | 0.000261898 |
| TAG(8:0_8:0_10:0) | 0.008162353 | 0.006294094 | 3.22345E-05 | 0.001315768 | 4.25621E-05 |
| TAG(9:0_11:1_18:1) | 0.004464161 | 0.004771766 | 0.000203876 | 0.002967103 | 0.000307305 |