

Supporting material

Tabulated values of the results presented in the article.

Table S1. Values for Figure 1.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|------|------|------|------|------|------|----------------|------|------|------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Hot water extract (%) | 33.5 | 20.3 | 17.4 | 14.6 | 16.4 | 11.5 | 8.9 | 14.3 | 9.2 | 7.3 | 30.6 | 13.7 | 5 | 5.7 |
| Hot water extract SD | 0.7 | 0.9 | 0.8 | 1.4 | 0.3 | 0.1 | 0.3 | 0.2 | 0.2 | 1.4 | 0.2 | 0.3 | 0.1 | 0 |
| Hexane extract (%) | 4.1 | 4.4 | 4.1 | 3.8 | 3.8 | 4 | 3.6 | 4.1 | 3.4 | 3 | 4.3 | 4.9 | 3.4 | 3.6 |
| Hexane extract SD | 0.01 | 0.2 | 0.001 | 0.2 | 0.1 | 0.1 | 0.01 | 0.04 | 0.04 | 0.1 | 0.002 | 0.03 | 0.1 | 0.03 |
| Holocellulose (%) | | | | | | | | | | | 35.1 | 34.8 | 40.4 | 38.2 |
| Holocellulose SD | | | | | | | | | | | 0.6 | 0.8 | 1.3 | 0.7 |
| Cellulose (%) | 17.2 | | | | | | | 17 | 15.7 | 15.3 | | | | |
| Cellulose SD | 0.5 | | | | | | | 0.4 | 0.6 | 0.7 | | | | |
| Hemicellulose (%) | 19.2 | 19.5 | 17.4 | 18.8 | 20.6 | 21.9 | 20.3 | 19.6 | 22.8 | 21.2 | | | | |
| Hemicellulose SD | 0.3 | 0.004 | 0.6 | 1.5 | 1.5 | 2.6 | 0.8 | 0.1 | 0.2 | 2 | | | | |
| Lignin (acid-insoluble) (%) | 16.8 | | | | | | | 35.8 | 39.8 | 44.4 | 17.4 | 33.8 | 37.6 | 35.9 |
| Lignin (acid-insoluble) SD | 0.4 | | | | | | | 0.4 | 1.6 | 2.5 | 0.8 | 0.4 | 1.2 | 1.3 |
| Lignin (acid-soluble) (%) | 0.7 | | | | | | | 0.7 | 0.8 | 0.8 | 0.7 | 0.7 | 1 | 0.8 |
| Lignin (acid-soluble) SD | 0.1 | | | | | | | 0.04 | 0.02 | 0.02 | 0.02 | 0.2 | 0.03 | 0.04 |
| Unidentified (%) | 8.5 | 55.8 | 61.1 | 62.8 | 59.2 | 62.7 | 67.2 | 8.4 | 8.3 | 8 | 11.9 | 12.1 | 12.6 | 15.7 |
| Unidentified SD | 1.7 | 1.1 | 1.4 | 0.04 | 1 | 2.8 | 0.5 | 0.2 | 0.5 | 1.7 | 0.2 | 0.4 | 1.1 | 1.4 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top.

Table S2. Values for Figure 3.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|------|------|------|------|------|------|----------------|-------|--------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Resin acids (mg/g of d.m.) | 14.1 | 10.3 | 8.6 | 8.8 | 8 | 7.5 | 9.1 | 8.5 | 7.5 | 8.8 | 12.2 | 9.7 | 9.6 | 8.1 |
| Resin acids SD | 2.2 | 0.5 | 0.2 | 0.1 | 0.2 | 0.1 | 0.03 | 0.02 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.01 |
| Fatty acids (mg/g of d.m.) | 9.5 | 8.1 | 7.4 | 7.3 | 8.7 | 4.2 | 4.9 | 8.4 | 2.8 | 2.1 | 10 | 8.9 | 3.4 | 6.5 |
| Fatty acids SD | 0.3 | 0.2 | 0.3 | 0.3 | 0.1 | 0.03 | 0.02 | 0.1 | 0.04 | 0.2 | 0.03 | 0.004 | 0.0004 | 0.4 |
| Diterpenoids (mg/g of d.m.) | 4.1 | 3.2 | 2.2 | 2.3 | 1.8 | 2 | 2.4 | 1.9 | 2.1 | 2.7 | 3.9 | 2.4 | 2.6 | 2.2 |
| Diterpenoids SD | 0.6 | 0.2 | 0.04 | 0.05 | 0.03 | 0.02 | 0.02 | 0.01 | 0.1 | 0.1 | 0.1 | 0.1 | 0.01 | 0.001 |
| Sterols (mg/g of d.m.) | 3.3 | 4.3 | 3.2 | 2.9 | 3.4 | 3.6 | 3.3 | 2.9 | 2.7 | 2.7 | 3.3 | 2.9 | 2.5 | 2.9 |
| Sterols SD | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.1 | 0.3 | 0.1 | 0.1 | 0.02 | 0.1 | 0.01 | 0.1 |
| Steryl esters (mg/g of d.m.) | 0.6 | 0.5 | 0.4 | 0.4 | 1 | 0.5 | 0.6 | 1.7 | 0.5 | 0.7 | 1.1 | 1.5 | 0.8 | 0.7 |
| Steryl esters SD | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.01 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.04 | 0.1 | 0.1 |
| Triglycerides (mg/g of d.m.) | 2.6 | 10.9 | 14.6 | 11.9 | 12.5 | 17.3 | 12.7 | 17.6 | 18.1 | 12.6 | 6.4 | 21.7 | 14.5 | 15.6 |
| Triglycerides SD | 2.5 | 0.7 | 0.7 | 1.1 | 0.2 | 0.5 | 1.6 | 0.4 | 0.7 | 0.2 | 0.2 | 0.2 | 0.5 | 0.1 |
| Others (mg/g of d.m.) | 2.6 | 3.6 | 2.6 | 2.3 | 2.5 | 2.5 | 2.4 | 2.1 | 1.3 | 0.9 | 2.7 | 2.1 | 1.3 | 1.9 |
| Others SD | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 | 0.01 | 0.2 | 0.1 | 0.1 | 0.02 | 0.1 | 0.02 | 0.03 |
| Unidentified (mg/g of d.m.) | 5.9 | 4.3 | 3.4 | 3.5 | 2.7 | 2.1 | 1.7 | 1.1 | 0.3 | 0.3 | 5.8 | 2.3 | 0.4 | 0.7 |
| Unidentified SD | 0.1 | 0.001 | 0.1 | 0.1 | 0.02 | 0.1 | 0.6 | 0.1 | 0.01 | 0.1 | 0.2 | 0.05 | 0.1 | 0.03 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top.

Table S3. Values for Figure 4.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-------|------|-------|-------|------|------|----------------|------|------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Sugars (mg/g of d.m.) | 92.3 | 21.1 | 17.9 | 14.8 | 30.9 | 4.8 | 6.5 | 44.5 | 7.8 | 1.7 | 82 | 23.8 | 1.7 | 1.9 |
| Sugars SD | 9.5 | 1.9 | 2.3 | 0.9 | 1 | 0.3 | 0.7 | 4.4 | 0.5 | 1 | 10 | 0.2 | 0.2 | 0.04 |
| Sugar alcohols (mg/g of d.m.) | 8.1 | 22 | 9.3 | 8.6 | 6.5 | 1.6 | 2.7 | 10.3 | 2.2 | 1.1 | 8.1 | 12.7 | 1.1 | 0.9 |
| Sugar alcohols SD | 0.8 | 1.7 | 1 | 0.1 | 0.1 | 0.02 | 0.3 | 0.2 | 0.02 | 0.5 | 1.8 | 0.5 | 0.1 | 0.04 |
| Organic acids (mg/g of d.m.) | 23.6 | 15.9 | 10.6 | 7.5 | 16.1 | 2.9 | 3.6 | 25 | 4.2 | 1.3 | 18.8 | 18.6 | 1 | 1.3 |
| Organic acids SD | 0.5 | 1.6 | 1.4 | 0.2 | 0.1 | 0.1 | 0.6 | 0.7 | 0.1 | 0.7 | 0.3 | 0.2 | 0.02 | 0.1 |
| Stilbenes (mg/g of d.m.) | 19.4 | 2.7 | 0.7 | 0.7 | 0.5 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 23 | 0.3 | 0.2 | 0.2 |
| Stilbenes SD | 3.4 | 0.2 | 0.03 | 0.1 | 0.02 | 0.03 | 0.001 | 0.1 | 0.04 | 0.1 | 0.4 | 0.1 | 0.02 | 0.001 |
| Sesquistilbenes (mg/g of d.m.) | 16.4 | 4.3 | 4.8 | 3.6 | 6.1 | 3.1 | 4.3 | 1.1 | 1.6 | 0.6 | 20.9 | 0 | 0 | 0 |
| Sesquistilbenes SD | 0.1 | 0.1 | 0.5 | 1.3 | 0.8 | 0.9 | 0.001 | 0.1 | 0.5 | 0.2 | 2.4 | 0 | 0 | 0 |
| Distilbenes (mg/g of d.m.) | 16.9 | 5.1 | 4.2 | 3.8 | 5.3 | 3.4 | 3.9 | 2.1 | 2.4 | 2.1 | 14.7 | 0 | 0 | 0 |
| Distilbenes SD | 0.8 | 0.6 | 0.4 | 0.8 | 0.2 | 0.9 | 0.1 | 0.9 | 1.5 | 0.4 | 2.2 | 0 | 0 | 0 |
| Flavonoids (mg/g of d.m.) | 6.3 | 2.2 | 0.9 | 0.7 | 0.5 | 0.3 | 0.4 | 0.5 | 0.03 | 0.1 | 5.2 | 1 | 0.1 | 0.1 |
| Flavonoids SD | 0.9 | 0.1 | 0.1 | 0.1 | 0.03 | 0.02 | 0.02 | 0.004 | 0.04 | 0.1 | 1.8 | 0.2 | 0.02 | 0.02 |
| Alcohols (mg/g of d.m.) | 3.5 | 1.2 | 0.5 | 0.5 | 0.6 | 0.1 | 0.2 | 0.5 | 0.04 | 0.02 | 3.4 | 0.8 | 0.1 | 0.05 |
| Alcohols SD | 0.5 | 0.1 | 0.04 | 0.05 | 0.002 | 0.01 | 0.01 | 0.1 | 0.1 | 0.03 | 0.5 | 0.1 | 0.01 | 0.01 |
| Others (mg/g of d.m.) | 6.4 | 8.5 | 4.1 | 3.8 | 4 | 1.8 | 2.8 | 6 | 4 | 0.8 | 6.3 | 8.7 | 2 | 1.9 |
| Others SD | 1 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 | 1.2 | 2.2 | 3.4 | 0.4 | 0.6 | 5.2 | 0.4 | 0.1 |
| Unidentified (mg/g of d.m.) | 141.5 | 120.1 | 121.1 | 101.6 | 93.3 | 96.5 | 64.2 | 53.1 | 68.6 | 64.7 | 123.8 | 69.4 | 44.1 | 49.7 |
| Unidentified SD | 21.7 | 3.3 | 13.2 | 13.6 | 5.3 | 3.1 | 6 | 6.6 | 5.2 | 11.8 | 20.3 | 9.5 | 2.2 | 0.4 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S4. Values for Figure 5.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|--|-----------------|-----------------|-----------------|-----------------|-------|------------|------------|------------|-------|-------|----------------|------|------------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Dehydroabietic acid (mg/g of d.m.) | 2.5 | 2.1 | 2.3 | 2.2 | 2.6 | 2.1 | 2.4 | 2.6 | 2.2 | 2.1 | 2.1 | 2.6 | 2.5 | 2.4 |
| Dehydroabietic acid SD | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.02 | 0.004 | 0.01 | 0.1 | 0.1 | 0.1 | 0.04 | 0.03 | 0.1 |
| Isopimaric acid (mg/g of d.m.) | 2.1 | 1.6 | 1.7 | 1.7 | 1.4 | 1.5 | 2.3 | 1.6 | 1.5 | 2.7 | 1.9 | 1.6 | 2.7 | 1.7 |
| Isopimaric acid SD | 0.3 | 0.1 | 0.05 | 0.03 | 0.02 | 0.01 | 0.02 | 0.002 | 0.03 | 0.1 | 0.1 | 0.1 | 0.1 | 0.02 |
| Levopimaric acid (mg/g of d.m.) | 1.6 | 1 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 1.3 | 0.2 | 0.2 | 0.2 |
| Levopimaric acid SD | 0.2 | 0.03 | 0.01 | 0.02 | 0.005 | 0.001 | 0.01 | 0.002 | 0.01 | 0.01 | 0.01 | 0.03 | 0.01 | 0.02 |
| Neobietic acid (mg/g of d.m.) | 1.6 | 1.2 | 0.4 | 0.5 | 0.2 | 0.3 | 0.4 | 0.2 | 0.3 | 0.4 | 1.3 | 0.3 | 0.4 | 0.3 |
| Neobietic acid SD | 0.3 | 0.1 | 0.01 | 0.01 | 0.01 | 0.000 3 | 0.005 | 0.01 | 0.01 | 0.02 | 0.1 | 0.1 | 0.01 | 0.03 |
| Abietic acid (mg/g of d.m.) | 1.5 | 1.1 | 1.1 | 1.2 | 1 | 0.8 | 1 | 1.1 | 0.7 | 0.7 | 1.3 | 1.6 | 0.9 | 0.9 |
| Abietic acid SD | 0.2 | 0.05 | 0.02 | 0.03 | 0.01 | 0.004 | 0.01 | 0.01 | 0.02 | 0.02 | 0.04 | 0.1 | 0.02 | 0.002 |
| Palustric acid (mg/g of d.m.) | 1.1 | 1.2 | 0.8 | 0.8 | 0.5 | 0.6 | 0.6 | 0.4 | 0.5 | 0.4 | 0.8 | 0.3 | 0.4 | 0.4 |
| Palustric acid SD | 0.2 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.000 5 | 0.03 | 0.03 | 0.004 | 0.03 | 0.1 | 0.03 | 0.1 |
| Hydroxydehydroabietic acid 1 (mg/g of d.m.) | 0.6 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.3 |
| Hydroxydehydroabietic acid 1 SD | 0.1 | 0.01 | 0.01 | 0.000 2 | 0.01 | 0.001 | 0.003 | 0.01 | 0.003 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 |
| Sandaracopimaric acid (mg/g of d.m.) | 0.5 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 | 0.4 | 0.3 | 0.3 |
| Sandaracopimaric acid SD | 0.1 | 0.02 | 0.01 | 0.01 | 0.01 | 0.002 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.002 | 0.002 |
| Hydroxy resin acid (mg/g of d.m.) | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.6 | 0.2 | 0.1 | 0.1 |
| Hydroxy resin acid SD | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.004 | 0.01 | 0.005 | 0.01 | 0.02 | 0.005 | 0.01 |
| Hydroxydehydroabietic acid 2 (mg/g of d.m.) | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0 | 0.2 | 0.1 | 0.4 | 0.2 | 0.1 | 0.1 |
| Hydroxydehydroabietic acid 2 SD | 0.1 | 0.005 | 0.004 | 0.001 | 0.01 | 0.01 | 0.01 | 0.005 | 0.003 | 0.01 | 0.02 | 0.01 | 0.000 1 | 0.002 |
| Pimaric acid (mg/g of d.m.) | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| Pimaric acid SD | 0.03 | 0.01 | 0.003 | 0.01 | 0.004 | 0.000 3 | 0.003 | 0.000 5 | 0.02 | 0.03 | 0.04 | 0.1 | 0.004 | 0.004 |
| Cupressic acid (mg/g of d.m.) | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 |
| Cupressic acid SD | 0.02 | 0.01 | 0.04 | 0.005 | 0.001 | 0.001 | 0.004 | 0.001 | 0.01 | 0.01 | 0.004 | 0.01 | 0.001 | 0.01 |
| Imbricatolic acid | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.5 | 0.3 | 0.2 | 0.2 |

| (mg/g of d.m.) | | | | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|------------|-------|------------|-------|------|-------|-------|-------|------------|--|
| Imbricatolic acid SD | 0.04 | 0.01 | 0.01 | 0.01 | 0.004 | 0.02 | 0.002 | 0.000 2 | 0.01 | 0.01 | 0.01 | 0.003 | 0.006 | 0.000 1 | |
| 7-Oxodehydroabietic acid (mg/g of d.m.) | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| 7-Oxodehydroabietic acid SD | 0.02 | 0.003 | 0.001 | 0.01 | 0.01 | 0.002 | 0.002 | 0.005 | 0.004 | 0.01 | 0.004 | 0.01 | 0.001 | 0.004 | |
| Secodehydroabietic acid (mg/g of d.m.) | 0 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0 | 0.1 | 0.2 | 0.1 | |
| Secodehydroabietic acid SD | 0.01 | 0.002 | 0.005 | 0.002 | 0.001 | 0.000 2 | 0.001 | 0.001 | 0.002 | 0.01 | 0.002 | 0.001 | 0.01 | 0.002 | |
| 4-Hydroxy cinnamic acid (mg/g of d.m.) | 0 | 0.1 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 | 0.5 | 0.3 | 0.5 | 0.1 | 0.4 | 0.5 | 0.4 | |
| 4-Hydroxy cinnamic acid SD | 0.004 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.005 | 0.01 | 0.002 | 0.01 | 0.002 | 0.02 | 0.01 | 0.01 | |
| Other resin acids (mg/g of d.m.) | 0.5 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | |
| Other resin acids SD | 0.1 | 0.02 | 0.005 | 0.03 | 0.03 | 0.03 | 0.001 | 0.02 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top.

Table S5. Values for Figure 6.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-------|---------|--------|-------|-------|-------|----------------|------|--------|--------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Acid 18:2 esters (mg/g of d.m.) | 2.7 | 2.2 | 1.8 | 1.6 | 1.6 | 0.8 | 0.8 | 1.5 | 0.4 | 0.3 | 2.8 | 1.7 | 0.5 | 0.8 |
| Acid 18:2 esters SD | 0.05 | 0.1 | 0.1 | 0.1 | 0.02 | 0.01 | 0.002 | 0.1 | 0.01 | 0.03 | 0.005 | 0.02 | 0.01 | 0.1 |
| Acid 18:1 esters (mg/g of d.m.) | 2 | 1.8 | 1.4 | 1.3 | 1.6 | 0.7 | 0.6 | 1 | 0.2 | 0.2 | 2.1 | 1.1 | 0.3 | 0.4 |
| Acid 18:1 esters SD | 0.1 | 0.1 | 0.1 | 0.1 | 0.01 | 0.01 | 0.01 | 0.1 | 0.01 | 0.02 | 0.02 | 0.04 | 0.02 | 0.1 |
| Acid 18:3 esters (mg/g of d.m.) | 1.6 | 1.1 | 0.9 | 0.8 | 0.8 | 0.3 | 0.4 | 0.7 | 0.2 | 0.3 | 1.7 | 1.1 | 0.3 | 0.5 |
| Acid 18:3 esters SD | 0.01 | 0.1 | 0.1 | 0.03 | 0.02 | 0.003 | 0.03 | 0.1 | 0.1 | 0.04 | 0.01 | 0.02 | 0.03 | 0.04 |
| Acid 22:0 esters (mg/g of d.m.) | 0.8 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5 | 0.3 | 0.2 | 0.9 | 0.6 | 0.2 | 0.6 |
| Acid 22:0 esters SD | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.002 | 0.02 | 0.01 | 0.03 | 0.04 | 0.1 | 0.01 | 0.02 | 0.3 |
| Acid 16:0 esters (mg/g of d.m.) | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.2 | 0.2 | 0.3 | 0.1 | 0.1 | 0.4 | 0.3 | 0.1 | 0.1 |
| Acid 16:0 esters SD | 0.04 | 0.02 | 0.02 | 0.02 | 0.004 | 0.001 | 0.002 | 0.03 | 0.002 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 |
| Acid 18:1 (mg/g of d.m.) | 0.3 | 0.4 | 0.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.7 | 0.3 | 0.2 | 0.2 | 0.6 | 0.4 | 0.9 |
| Acid 18:1 SD | 0.1 | 0.02 | 0.04 | 0.03 | 0.01 | 0.01 | 0.02 | 0.01 | 0.002 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 |
| Acid 22:0 (mg/g of d.m.) | 0.3 | 0.2 | 0.2 | 0.3 | 0.4 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 |
| Acid 22:0 SD | 0.001 | 0.003 | 0.004 | 0.02 | 0.01 | 0.001 | 0.02 | 0.01 | 0.002 | 0.01 | 0.004 | 0.01 | 0.02 | 0.0001 |
| Acid 18:3 (mg/g of d.m.) | 0.3 | 0.5 | 0.5 | 0.5 | 0.6 | 0.3 | 0.4 | 0.6 | 0.3 | 0.1 | 0.3 | 0.6 | 0.3 | 0.6 |
| Acid 18:3 SD | 0.01 | 0.01 | 0.02 | 0.002 | 0.002 | 0.01 | 0.03 | 0.01 | 0.05 | 0.001 | 0.01 | 0.02 | 0.02 | 0.01 |
| Acid 17:0 esters (mg/g of d.m.) | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.03 | 0.04 | 0.3 | 0.1 | 0 | 0 |
| Acid 17:0 esters SD | 0.004 | 0.01 | 0.01 | 0.01 | 0.001 | 0.001 | 0.002 | 0.02 | 0.002 | 0.005 | 0.003 | 0.01 | 0.0001 | 0.01 |
| Acid 18:0 (mg/g of d.m.) | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Acid 18:0 SD | 0.003 | 0.01 | 0.01 | 0.004 | 0.002 | 0.00004 | 0.0003 | 0.003 | 0.003 | 0.004 | 0.01 | 0.01 | 0.004 | 0.003 |
| Acid 18:2 (mg/g of d.m.) | 0.1 | 0.3 | 0.4 | 0.5 | 0.7 | 0.3 | 0.4 | 0.8 | 0.2 | 0.2 | 0.2 | 0.7 | 0.3 | 0.8 |
| Acid 18:2 SD | 0.004 | 0.001 | 0.005 | 0.0002 | 0.012 | 0.001 | 0.02 | 0.02 | 0.003 | 0.003 | 0.0002 | 0.02 | 0.01 | 0.002 |
| Acid 24:0 esters (mg/g of d.m.) | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.6 | 0.2 | 0.1 | 0 | 0.5 | 0.1 | 0.6 |
| Acid 24:0 esters | 0.02 | 0.03 | 0.003 | 0.01 | 0.02 | 0.001 | 0.02 | 0.02 | 0.001 | 0.02 | 0 | 0.02 | 0.01 | 0.4 |

| SD | | | | | | | | | | | | | | | |
|---------------------------------------|-------|-------|-------|-------|-------|-------------|--------|-------|-------|-------|-------|-------|--------|-------|-----|
| Acid 24:0 (mg/g of d.m.) | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.1 | 0.1 |
| Acid 24:0 SD | 0.037 | 0.004 | 0.002 | 0.03 | 0.01 | 0.002 | 0.0001 | 0.005 | 0.001 | 0.01 | 0.01 | 0.002 | 0.005 | 0.004 | |
| Acid 16:0 (mg/g of d.m.) | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.3 | |
| Acid 16:0 SD | 0.002 | 0.01 | 0.01 | 0.001 | 0.005 | 0.002 | 0.005 | 0.01 | 0.001 | 0.003 | 0.001 | 0.01 | 0.002 | 0.001 | |
| Acid 17:0 (mg/g of d.m.) | 0.04 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.05 | 0.03 | 0.04 | 0.1 | 0.1 | 0.2 | |
| Acid 17:0 SD | 0.02 | 0.01 | 0.1 | 0.1 | 0.01 | 0.01 | 0.05 | 0.1 | 0.03 | 0.02 | 0.02 | 0.04 | 0.03 | 0.1 | |
| 2-Hydroxy-24:0 acid (mg/g of d.m.) | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.4 | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.2 | |
| 2-Hydroxy-24:0 acid SD | 0.1 | 0 | 0.03 | 0.04 | 0.01 | 0.003 | 0.03 | 0.01 | 0.01 | 0.002 | 0.005 | 0.01 | 0.001 | 0.001 | |
| Other fatty acids (mg/g of d.m.) | 0.1 | 0.03 | 0.04 | 0.02 | 0.03 | 0.02 | 0.02 | 0.1 | 0.02 | 0.04 | 0.1 | 0.1 | 0.03 | 0.04 | |
| Other fatty acids SD | 0.02 | 0.01 | 0.04 | 0.002 | 0.02 | 0.0000 3 | 0.0002 | 0.004 | 0.01 | 0.03 | 0.02 | 0.001 | 0.0001 | 0.002 | |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S6. Values for Figure 7.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|--|-----------------|-----------------|-----------------|-----------------|-------|------------|------------|------------|------------|-------|------------|----------------|-------------|------------|-----|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T | |
| Thunbergol (mg/g of d.m.) | 1.3 | 1.0 | 0.3 | 0.3 | 0.1 | 0.3 | 0.2 | 0.1 | 0.3 | 0.2 | 1.2 | 0.3 | 0.2 | 0.3 | |
| Thunbergol SD | 0.2 | 0.1 | 0.001 | 0.003 | 0.01 | 0.03 | 0.000 3 | 0.01 | 0.02 | 0.004 | 0.03 | 0.02 | 0.003 | 0.01 | |
| Δ -13-(<i>trans</i>) neoabienol (mg/g of d.m.) | 1.3 | 1.0 | 0.8 | 0.8 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 1.1 | 0.8 | 0.6 | 0.6 | |
| Δ -13-(<i>trans</i>) neoabienol SD | 0.2 | 0.04 | 0.02 | 0.005 | 0.02 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.002 | 0.000 4 | |
| <i>Cis</i> -abienol (mg/g of d.m.) | 0.4 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.2 | 0.1 | 0.2 | |
| <i>Cis</i> -abienol SD | 0.04 | 0.01 | 0.004 | 0.01 | 0.004 | 0.01 | 0.01 | 0.003 | 0.001 | 0.01 | 0.02 | 0.01 | 0.001 | 0.001 | |
| Isopimaral (mg/g of d.m.) | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | |
| Isopimaral SD | 0.1 | 0.01 | 0.004 | 0.01 | 0.002 | 0.01 | 0.01 | 0.003 | 0.05 | 0.01 | 0.001 | 0.02 | 0.01 | 0.01 | |
| Palustral (mg/g of d.m.) | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | |
| Plaustral SD | 0.02 | 0.01 | 0.003 | 0.01 | 0.003 | 0.000 2 | 0.001 | 0.004 | 0.01 | 0.004 | 0.01 | 0.01 | 0.01 | 0.01 | |
| Isopimarol (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Isopimarol SD | 0.1 | 0.01 | 0.004 | 0.01 | 0.002 | 0.01 | 0.01 | 0.003 | 0.05 | 0.01 | 0.001 | 0.02 | 0.01 | 0.01 | |
| Dehydroabietal (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Dehydroabietal SD | 0.02 | 0.01 | 0.005 | 0.004 | 0.003 | 0.001 | 0.000 4 | 0.001 | 0.003 | 0.001 | 0.01 | 0.003 | 0.000 02 | 0.001 | |
| Pimaradiene (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Pimaradiene SD | 0.02 | 0.01 | 0.003 | 0.004 | 0.004 | 0.002 | 0.001 | 0.002 | 0.000 2 | 0.003 | 0.002 | 0.001 | 0.002 | 0.000 2 | |
| Manool (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |
| Manool SD | 0.02 | 0.02 | 0.005 | 0.01 | 0.003 | 0.001 | 0.003 | 0.001 | 0.001 | 0.01 | 0.001 | 0.001 | 0.001 | 0.001 | |
| Epimanoil oxide (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| Epimanoil oxide SD | 0.01 | 0.01 | 0.01 | 0.000 3 | 0.001 | 0.001 | 0.002 | 0.001 | 0.001 | 0.003 | 0.000 2 | 0.02 | 0.001 | 0.001 | |
| Abietal (mg/g of d.m.) | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.01 | 0.03 | 0.04 | 0.02 | 0.00 | 0.04 | 0.05 | 0.03 | 0.02 | |
| Abietal SD | 0.003 | 0.002 | 0.002 | 0.000 2 | 0.001 | 0.01 | 0.001 | 0.000 1 | 0.002 | 0.0 | 0.001 | 0.003 | 0.000 02 | 0.001 | |
| Thunbergene (mg/g of d.m.) | 0.05 | 0.04 | 0.04 | 0.04 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.1 | 0.1 | 0.03 | 0.05 | |
| Thunbergene | 0.01 | 0.01 | 0.002 | 0.01 | 0.003 | 0.001 | 0.001 | 0.002 | 0.01 | 0.004 | 0.01 | 0.001 | 0.01 | 0.003 | |

| SD | | | | | | | | | | | | | | |
|---|-------|-------|-------|------------|-------|-------|------------|------------|-------|-------|-------|-------|-------------|-------|
| Methyl-8,15-isopimaradien-18-oate (mg/g of d.m.) | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.1 | 0.2 | 0.7 | 0.04 | 0.04 | 0.6 | 0.2 |
| Methyl-8,15-isopimaradien-18-oate SD | 0.003 | 0.002 | 0.002 | 0.000 2 | 0.001 | 0.01 | 0.001 | 0.000 1 | 0.002 | 0.0 | 0.001 | 0.003 | 0.000 02 | 0.001 |
| Methyl neoabietate (mg/g of d.m.) | 0.03 | 0.02 | 0.03 | 0.03 | 0.01 | 0.02 | 0.02 | 0.01 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | 0.01 |
| Methyl neoabietate SD | 0.01 | 0.001 | 0.003 | 0.001 | 0.01 | 0.001 | 0.000 3 | 0.000 3 | 0.0 | 0.000 | 0.003 | 0.0 | 0.000 1 | 0.003 |
| Vanillin (mg/g of d.m.) | 0.01 | 0.04 | 0.03 | 0.1 | 0.05 | 0.03 | 0.04 | 0.1 | 0.04 | 0.05 | 0.05 | 0.1 | 0.1 | 0.03 |
| Vanillin SD | 0.01 | 0.02 | 0.01 | 0.002 | 0.005 | 0.003 | 0.002 | 0.01 | 0.002 | 0.003 | 0.01 | 0.004 | 0.003 | 0.002 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S7. Values for Figure 8.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|--|-----------------|-----------------|-----------------|-----------------|-------|---------|-------|--------|-------|-------|----------------|-------|-------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Sitosterol esters (mg/g of d.m.) | 1.8 | 1.6 | 1.4 | 1.3 | 1.0 | 1.0 | 0.9 | 0.8 | 0.4 | 0.2 | 0.9 | 0.9 | 0.7 | 0.8 |
| Sitosterol esters SD | 0.1 | 0.04 | 0.2 | 0.1 | 0.02 | 0.04 | 0.01 | 0.02 | 0.1 | 0.02 | 0.1 | 0.01 | 0.04 | 0.02 |
| Other sterol esters (mg/g of d.m.) | 0.7 | 1.7 | 0.9 | 0.7 | 1.2 | 1.2 | 1.2 | 1.1 | 0.8 | 0.7 | 1.6 | 1.0 | 0.5 | 0.8 |
| Other sterol esters SD | 0.1 | 0.1 | 0.003 | 0.1 | 0.2 | 0.3 | 0.03 | 0.2 | 0.02 | 0.03 | 0.1 | 0.1 | 0.04 | 0.1 |
| Campesterol esters (mg/g of d.m.) | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 |
| Campesterol esters SD | 0.02 | 0.01 | 0.04 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.01 | 0.02 | 0.001 | 0.01 | 0.1 |
| Sitosterol (mg/g of d.m.) | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.5 | 0.5 | 0.7 | 0.8 | 0.4 | 0.5 | 0.6 | 0.6 |
| Sitosterol SD | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.002 | 0.01 | 0.02 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.002 |
| Campesterol (mg/g of d.m.) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Campesterol SD | 0.005 | 0.003 | 0.001 | 0.004 | 0.02 | 0.001 | 0.003 | 0.003 | 0.002 | 0.001 | 0.001 | 0.01 | 0.002 | 0.01 |
| 24-Methylenecycloartan-3-one (mg/g of d.m.) | 0.04 | 0.04 | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.04 | 0.1 | 0.1 | 0.1 |
| 24-Methylenecycloartan-3-one SD | 0.001 | 0.01 | 0.0004 | 0.001 | 0.001 | 0.002 | 0.003 | 0.003 | 0.002 | 0.002 | 0.0001 | 0.003 | 0.003 | 0.001 |
| 7-Hydroxysitosterol (mg/g of d.m.) | 0.02 | 0.1 | 0.02 | 0.03 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 |
| 7-Hydroxysitosterol SD | 0.005 | 0.001 | 0.0002 | 0.005 | 0.04 | 0.00004 | 0.03 | 0.0004 | 0.03 | 0.003 | 0.001 | 0.01 | 0.01 | 0.04 |
| Chondrillasterol (mg/g of d.m.) | 0.0 | 0.01 | 0.02 | 0.02 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.02 | 0.1 | 0.2 | 0.1 |
| Chondrillasterol SD | 0.0 | 0.01 | 0.004 | 0.01 | 0.03 | 0.01 | 0.02 | 0.02 | 0.01 | 0.003 | 0.003 | 0.001 | 0.004 | 0.01 |
| Ergosterol (mg/g of d.m.) | 0.02 | 0.02 | 0.02 | 0.01 | 0.03 | 0.04 | 0.03 | 0.01 | 0.04 | 0.03 | 0.02 | 0.02 | 0.02 | 0.01 |
| Ergosterol SD | 0.02 | 0.001 | 0.004 | 0.001 | 0.02 | 0.0001 | 0.01 | 0.001 | 0.002 | 0.002 | 0.0003 | 0.002 | 0.01 | 0.02 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S8. Values for Figure 9.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|--------|-------|-------|-------|------|------|----------------|------|-------|--------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Glucose (mg/g of d.m.) | 51.1 | 12.0 | 9.6 | 7.0 | 16.6 | 1.6 | 2.3 | 20.2 | 3.9 | 0.3 | 43.8 | 1.3 | 0.1 | 0.1 |
| Glucose SD | 3.2 | 1.2 | 1.4 | 0.8 | 0.4 | 0.2 | 0.3 | 1.5 | 0.01 | 0.1 | 3.2 | 0.3 | 0.01 | 0.01 |
| Sucrose (mg/g of d.m.) | 27.3 | 1.1 | 0.8 | 2.1 | 0.8 | 0.2 | 0.1 | 1.1 | 0.2 | 0.1 | 27.8 | 0.3 | 0.2 | 0.2 |
| Sucrose SD | 4.0 | 0.2 | 0.02 | 0.1 | 0.4 | 0.01 | 0.05 | 0.1 | 0.1 | 0.1 | 4.0 | 0.1 | 0.02 | 0.01 |
| Maltose (mg/g of d.m.) | 5.2 | 1.8 | 0.7 | 0.7 | 0.9 | 0.5 | 0.6 | 1.1 | 0.5 | 0.4 | 4.5 | 1.0 | 0.5 | 0.5 |
| Maltose SD | 0.6 | 0.2 | 0.1 | 0.02 | 0.1 | 0.01 | 0.01 | 0.3 | 0.05 | 0.2 | 0.6 | 0.2 | 0.1 | 0.004 |
| Alpha lactose (mg/g of d.m.) | 2.7 | 0.7 | 0.6 | 0.3 | 0.2 | 0.1 | 0.05 | 0.1 | 0.1 | 0.03 | 2.4 | 0.1 | 0.05 | 0.04 |
| Alpha lactose SD | 0.4 | 0.1 | 0.1 | 0.003 | 0.0002 | 0.03 | 0.01 | 0.1 | 0.1 | 0.04 | 0.3 | 0.02 | 0.01 | 0.001 |
| Galactose (mg/g of d.m.) | 2.0 | 1.9 | 2.5 | 2.7 | 10.3 | 1.7 | 2.7 | 19.1 | 2.4 | 0.5 | 1.2 | 17.0 | 0.5 | 0.6 |
| Galactose SD | 0.6 | 0.2 | 0.3 | 0.1 | 0.2 | 0.1 | 0.4 | 2.2 | 0.2 | 0.3 | 0.4 | 0.7 | 0.03 | 0.01 |
| Trehalose (mg/g of d.m.) | 1.6 | 0.6 | 0.8 | 0.6 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | 0.1 | 1.1 | 0.2 | 0.2 | 0.1 |
| Trehalose SD | 0.3 | 0.02 | 0.1 | 0.01 | 0.03 | 0.01 | 0.002 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.03 | 0.001 |
| Palatinose (mg/g of d.m.) | 1.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| Palatinose SD | 0.1 | 0.01 | 0.01 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Cellobiose (mg/g of d.m.) | 0.7 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.2 | 0.04 | 0.03 | 0.4 | 0.1 | 0.03 | 0.04 |
| Cellobiose SD | 0.3 | 0.002 | 0.03 | 0.0001 | 0.003 | 0.004 | 0.0 | 0.03 | 0.1 | 0.04 | 0.01 | 0.02 | 0.004 | 0.0005 |
| Lactulose (mg/g of d.m.) | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.4 | 0.1 | 0.01 | 0.0 |
| Lactulose SD | 0.1 | 0.02 | 0.003 | 0.003 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.0 | 0.1 | 0.01 | 0.001 | 0.0 |
| Glucose phosphate (mg/g of d.m.) | 0.2 | 0.6 | 0.5 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.02 | 0.1 | 0.5 | 0.4 | 0.1 | 0.1 |
| Glucose phosphate SD | 0.3 | 0.1 | 0.1 | 0.01 | 0.002 | 0.01 | 0.01 | 0.002 | 0.04 | 0.01 | 0.04 | 0.1 | 0.004 | 0.003 |
| Mannose (mg/g of d.m.) | 0.0 | 1.8 | 2.1 | 1.0 | 1.5 | 0.4 | 0.5 | 2.3 | 0.4 | 0.1 | 0.0 | 3.4 | 0.1 | 0.1 |
| Mannose SD | 0.0 | 0.2 | 0.3 | 0.05 | 0.03 | 0.01 | 0.1 | 0.2 | 0.02 | 0.02 | 0.0 | 0.1 | 0.04 | 0.01 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S9. Values for Figure 10.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|--------|-------|-------|------|-------|-------|----------------|------|-------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Pinitol (mg/g of d.m.) | 5.0 | 4.8 | 1.9 | 1.6 | 2.0 | 0.4 | 0.7 | 3.4 | 0.4 | 0.1 | 4.8 | 4.6 | 0.2 | 0.1 |
| Pinitol SD | 0.8 | 0.4 | 0.2 | 0.03 | 0.05 | 0.01 | 0.02 | 0.2 | 0.02 | 0.03 | 0.7 | 0.01 | 0.03 | 0.01 |
| Maltotriitol (mg/g of d.m.) | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 1.3 | 0.2 | 0.2 | 0.1 |
| Maltotriitol SD | 0.04 | 0.002 | 0.01 | 0.001 | 0.02 | 0.002 | 0.003 | 0.1 | 0.0 | 0.0 | 0.4 | 0.04 | 0.01 | 0.004 |
| Inositol (mg/g of d.m.) | 0.6 | 6.0 | 1.9 | 1.2 | 0.4 | 0.1 | 0.1 | 0.6 | 0.1 | 0.05 | 0.5 | 0.5 | 0.02 | 0.02 |
| Inositol SD | 0.02 | 0.4 | 0.02 | 0.1 | 0.0001 | 0.004 | 0.005 | 0.03 | 0.001 | 0.002 | 0.1 | 0.02 | 0.001 | 0.001 |
| Sorbitol (mg/g of d.m.) | 0.4 | 1.4 | 0.4 | 0.5 | 0.5 | 0.1 | 0.2 | 0.7 | 0.2 | 0.1 | 0.4 | 1.2 | 0.1 | 0.04 |
| Sorbitol SD | 0.03 | 0.1 | 0.1 | 0.01 | 0.03 | 0.003 | 0.004 | 0.02 | 0.02 | 0.02 | 0.1 | 0.1 | 0.001 | 0.003 |
| Arabitol (mg/g of d.m.) | 0.4 | 1.9 | 0.8 | 0.7 | 1.4 | 0.2 | 0.4 | 2.3 | 0.5 | 0.3 | 0.7 | 1.6 | 0.3 | 0.2 |
| Arabitol SD | 0.02 | 0.2 | 0.1 | 0.03 | 0.002 | 0.02 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.01 | 0.003 | 0.01 |
| Isomaltitol (mg/g of d.m.) | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 |
| Isomaltitol SD | 0.04 | 0.0001 | 0.004 | 0.0 | 0.0 | 0.0 | 0.02 | 0.01 | 0.0 | 0.02 | 0.1 | 0.2 | 0.01 | 0.01 |
| Mannitol (mg/g of d.m.) | 0.3 | 6.6 | 3.1 | 3.5 | 1.0 | 0.4 | 0.5 | 1.5 | 0.5 | 0.2 | 0.2 | 2.6 | 0.05 | 0.03 |
| Mannitol SD | 0.03 | 0.6 | 0.5 | 0.2 | 0.02 | 0.01 | 0.002 | 0.1 | 0.03 | 0.1 | 0.02 | 0.2 | 0.01 | 0.001 |
| L-Ribulose (mg/g of d.m.) | 0.1 | 0.7 | 0.6 | 0.5 | 0.6 | 0.2 | 0.3 | 1.0 | 0.3 | 0.3 | 0.0 | 1.5 | 0.2 | 0.2 |
| L-Ribulose SD | 0.1 | 0.1 | 0.1 | 0.01 | 0.01 | 0.005 | 0.04 | 0.02 | 0.02 | 0.2 | 0.0 | 0.05 | 0.002 | 0.02 |
| Erythritol (mg/g of d.m.) | 0.0 | 0.2 | 0.4 | 0.4 | 0.5 | 0.2 | 0.3 | 0.7 | 0.3 | 0.0 | 0.0 | 0.6 | 0.03 | 0.04 |
| Erythritol SD | 0.0 | 0.02 | 0.1 | 0.1 | 0.1 | 0.01 | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.3 | 0.001 | 0.006 |
| Maltitol (mg/g of d.m.) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.04 | 0.01 | 0.02 |
| Maltitol SD | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.001 | 0.02 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S10. Values for Figure 11.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|--|-----------------|-----------------|-----------------|-----------------|------|--------|------|-------|-------|-------|----------------|------|-------|-------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Gluconic acid (mg/g of d.m.) | 7.0 | 6.9 | 3.3 | 2.8 | 5.0 | 1.1 | 1.4 | 7.2 | 1.6 | 0.5 | 5.4 | 6.1 | 0.4 | 0.6 |
| Gluconic acid SD | 0.7 | 0.8 | 0.6 | 0.1 | 0.1 | 0.02 | 0.1 | 0.5 | 0.1 | 0.1 | 0.4 | 0.4 | 0.005 | 0.04 |
| Citric acid (mg/g of d.m.) | 6.7 | 1.4 | 1.7 | 0.7 | 0.7 | 0.1 | 0.2 | 1.0 | 0.2 | 0.04 | 5.0 | 0.4 | 0.02 | 0.02 |
| Citric acid SD | 0.8 | 0.1 | 0.3 | 0.1 | 0.02 | 0.001 | 0.01 | 0.01 | 0.02 | 0.1 | 0.3 | 0.1 | 0.001 | 0.002 |
| Quinic acid (mg/g of d.m.) | 7.1 | 3.6 | 1.7 | 1.0 | 1.9 | 0.1 | 0.3 | 2.8 | 0.3 | 0.0 | 6.3 | 0.9 | 0.003 | 0.0 |
| Quinic acid SD | 0.8 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0003 | 0.1 | 0.2 | 0.004 | 0.0 | 0.1 | 0.04 | 0.005 | 0.0 |
| Shikimic acid (mg/g of d.m.) | 1.1 | 1.5 | 0.4 | 0.4 | 1.1 | 0.2 | 0.3 | 1.0 | 0.4 | 0.1 | 1.1 | 1.0 | 0.05 | 0.1 |
| Shikimic acid SD | 0.02 | 0.2 | 0.1 | 0.004 | 0.4 | 0.001 | 0.02 | 0.03 | 0.02 | 0.1 | 0.04 | 0.01 | 0.004 | 0.004 |
| Malic acid (mg/g of d.m.) | 0.8 | 0.4 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.4 | 0.03 | 0.05 | 0.7 | 0.2 | 0.04 | 0.1 |
| Malic acid SD | 0.1 | 0.1 | 0.02 | 0.0003 | 0.03 | 0.0 | 0.0 | 0.03 | 0.05 | 0.1 | 0.1 | 0.02 | 0.003 | 0.01 |
| L-Glutamic acid (mg/g of d.m.) | 0.3 | 1.2 | 1.5 | 1.2 | 5.9 | 0.8 | 1.0 | 11.9 | 1.4 | 0.4 | 0.3 | 8.0 | 0.1 | 0.1 |
| L-Glutamic acid SD | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.03 | 0.3 | 1.4 | 0.02 | 0.4 | 0.2 | 0.3 | 0.002 | 0.01 |
| 2,3-Dihydroxypropanoic acid (mg/g of d.m.) | 0.4 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 0.0 | 0.4 | 0.1 | 0.2 |
| 2,3-Dihydroxypropanoic acid SD | 0.3 | 0.02 | 0.04 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.002 | 0.005 | 0.0 | 0.04 | 0.005 | 0.1 |
| 2,3-Dihydroxysuccinic acid (mg/g of d.m.) | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.1 | 0.1 | 0.6 | 0.1 | 0.03 | 0.0 | 0.4 | 0.02 | 0.02 |
| 2,3-Dihydroxysuccinic acid SD | 0.0 | 0.01 | 0.03 | 0.01 | 0.01 | 0.002 | 0.03 | 0.003 | 0.001 | 0.04 | 0.0 | 0.04 | 0.001 | 0.002 |
| Other (mg/g of d.m.) | 0.2 | 0.7 | 0.9 | 0.7 | 0.6 | 0.2 | 0.1 | 0.8 | 0.1 | 0.1 | 0.0 | 1.2 | 0.3 | 0.2 |
| Other SD | 0.01 | 0.04 | 0.04 | 0.1 | 0.02 | 0.003 | 0.03 | 0.01 | 0.03 | 0.1 | 0.0 | 0.02 | 0.02 | 0.01 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S11. Values for Figure 12.

| Bark Pile | UC^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C^b | C | C | C |
|-----------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------|----------|----------|----------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Distilbenes (mg/g of d.m.) | 16.9 | 5.1 | 4.2 | 3.8 | 5.3 | 3.4 | 3.9 | 2.1 | 2.4 | 2.1 | 14.7 | 0.0 | 0.0 | 0.0 |
| Distilbenes SD | 0.8 | 0.6 | 0.4 | 0.8 | 0.2 | 0.9 | 0.1 | 0.9 | 1.5 | 0.4 | 2.2 | 0.0 | 0.0 | 0.0 |
| Sesquistilbenes (mg/g of d.m.) | 16.4 | 4.3 | 4.8 | 3.6 | 6.1 | 3.1 | 4.3 | 1.1 | 1.6 | 0.6 | 20.9 | 0.0 | 0.0 | 0.0 |
| Sesquistilbenes SD | 0.1 | 0.1 | 0.5 | 1.3 | 0.8 | 0.9 | 0.001 | 0.1 | 0.5 | 0.2 | 2.4 | 0.0 | 0.0 | 0.0 |
| Isorhapontin (mg/g of d.m.) | 9.5 | 0.2 | 0.1 | 0.05 | 0.04 | 0.1 | 0.03 | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 0.0 |
| Isorhapontin SD | 1.7 | 0.1 | 0.003 | 0.003 | 0.001 | 0.0004 | 0.001 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| Astringin (mg/g of d.m.) | 4.8 | 0.1 | 0.1 | 0.04 | 0.05 | 0.1 | 0.03 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 |
| Astringin SD | 1.1 | 0.1 | 0.1 | 0.01 | 0.005 | 0.01 | 0.003 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Piceid (mg/g of d.m.) | 3.2 | 0.1 | 0.1 | 0.05 | 0.1 | 0.04 | 0.04 | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 |
| Piceid SD | 0.7 | 0.1 | 0.01 | 0.01 | 0.002 | 0.004 | 0.002 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| Rhapontigenin (mg/g of d.m.) | 1.3 | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.04 | 0.02 | 0.02 | 0.02 | 1.6 | 0.05 | 0.04 | 0.04 |
| Rhapontigenin SD | 0.2 | 0.02 | 0.001 | 0.001 | 0.005 | 0.01 | 0.002 | 0.03 | 0.03 | 0.03 | 0.4 | 0.02 | 0.01 | 0.003 |
| Piceatannol (mg/g of d.m.) | 0.4 | 0.9 | 0.3 | 0.4 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.1 | 0.05 | 0.1 |
| Piceatannol SD | 0.03 | 0.04 | 0.03 | 0.03 | 0.003 | 0.01 | 0.001 | 0.05 | 0.004 | 0.1 | 0.1 | 0.03 | 0.003 | 0.0002 |
| Resveratrol (mg/g of d.m.) | 0.2 | 0.9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.04 | 0.2 | 0.1 | 0.1 | 0.1 |
| Resveratrol SD | 0.01 | 0.1 | 0.01 | 0.005 | 0.002 | 0.01 | 0.0003 | 0.02 | 0.01 | 0.1 | 0.02 | 0.02 | 0.01 | 0.003 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S12. Values for Figure 13.

| Bark Pile | UC ^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C ^b | C | C | C |
|---|-----------------|-----------------|-----------------|-----------------|--------|--------|------|------|------|-----|----------------|------|-------|--------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Taxifolin glycoside (mg/g of d.m.) | 1.5 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 |
| Taxifolin glycoside SD | 0.05 | 0.04 | 0.01 | 0.003 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| Naringin (mg/g of d.m.) | 1.4 | 0.5 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| Naringin SD | 0.5 | 0.03 | 0.1 | 0.001 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Catechin (mg/g of d.m.) | 1.1 | 0.3 | 0.0 | 0.1 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.04 | 0.02 | 0.02 |
| Catechin SD | 0.1 | 0.04 | 0.0 | 0.003 | 0.04 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.02 | 0.002 | 0.0002 |
| Taxifolin (mg/g of d.m.) | 1.0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.9 | 0.2 | 0.04 | 0.05 |
| Taxifolin SD | 0.2 | 0.01 | 0.003 | 0.001 | 0.002 | 0.0002 | 0.01 | 0.04 | 0.0 | 0.0 | 0.2 | 0.02 | 0.003 | 0.004 |
| Neohesperidin (mg/g of d.m.) | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Neohesperidin SD | 0.02 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| Naringenin chal- cone (mg/g of d.m.) | 0.3 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.03 | 0.02 |
| Naringenin chal- cone SD | 0.03 | 0.02 | 0.02 | 0.1 | 0.0004 | 0.01 | 0.03 | 0.01 | 0.0 | 0.0 | 0.0 | 0.1 | 0.004 | 0.004 |
| Dihydromyricetin (mg/g of d.m.) | 0.3 | 0.6 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.03 | 0.1 | 0.1 | 0.5 | 0.04 | 0.1 |
| Dihydromyricetin SD | 0.03 | 0.1 | 0.02 | 0.001 | 0.01 | 0.01 | 0.01 | 0.1 | 0.04 | 0.1 | 0.1 | 0.1 | 0.01 | 0.01 |
| Luteolin (mg/g of d.m.) | 0.0 | 0.0 | 0.0 | 0.1 | 0.04 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Luteolin SD | 0.0 | 0.0 | 0.0 | 0.0003 | 0.003 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S13. Values for Figure 14.

| Bark Pile | UC^a | UC | UC | UC | UC | UC | UC | UC | UC | UC | C^b | C | C | C |
|-------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------|----------|----------|----------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T | 0 | 24M | 24S | 24T |
| Procyanidins (g/100g of d.m.) | 2.8 | 1.3 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 2.9 | 0.5 | 0.2 | 0.3 |
| Procyanidins SD | 0.2 | 0.1 | 0.03 | 0.04 | 0.02 | 0.04 | 0.03 | 0.02 | 0.03 | 0.02 | 0.1 | 0.05 | 0.02 | 0.02 |
| Prodelphinidins (g/100g of d.m.) | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.04 | 0.03 | 0.3 | 0.1 | 0.04 | 0.04 |
| Prodelphinidins SD | 0.02 | 0.01 | 0.01 | 0.003 | 0.01 | 0.01 | 0.01 | 0.005 | 0.004 | 0.003 | 0.01 | 0.01 | 0.002 | 0.003 |
| Degree of polymerisa- tion | 8.0 | 5.7 | 2.8 | 2.6 | 2.4 | 2.5 | 2.4 | 2.2 | 2.1 | 2.3 | 8.2 | 2.9 | 2.6 | 3.0 |
| Degree of polymerisa- tion SD | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S14. Values for Figure 15.

| Bark Pile | UC^a | UC | UC | UC | C^b | C | C | C |
|--------------------------|-----------------------|------------------|------------------|------------------|----------------------|----------|----------|----------|
| Storage week | 0 | 24M ^c | 24S ^d | 24T ^e | 0 | 24M | 24S | 24T |
| Glucose (% of d.m.) | 38.5 | 34.1 | 31.8 | 29.9 | 35.3 | 31.2 | 30.0 | 30.7 |
| Glucose SD | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 1.0 | 0.6 |
| Arabinose (% of d.m.) | 7.8 | 1.6 | 2.9 | 2.3 | 7.6 | 3.3 | 2.5 | 3.6 |
| Arabinose SD | 0.2 | 0.02 | 0.02 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Xylose (% of d.m.) | 4.8 | 3.8 | 3.7 | 3.5 | 4.4 | 3.5 | 3.1 | 3.2 |
| Xylose SD | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| Mannose (% of d.m.) | 4.3 | 3.7 | 4.0 | 3.3 | 4.2 | 2.7 | 2.7 | 2.9 |
| Mannose SD | 0.1 | 0.3 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 |
| Galactose (% of d.m.) | 2.8 | 1.7 | 1.8 | 1.8 | 2.5 | 2.0 | 1.7 | 1.8 |
| Galactose SD | 0.05 | 0.02 | 0.05 | 0.1 | 0.05 | 0.1 | 0.1 | 0.05 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top

Table S15. Values for Figure 16.

| Bark Pile | UC^a | UC | UC | UC | UC | UC | UC | UC | UC | UC |
|-------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Storage week | 0 | 4M ^c | 4S ^d | 4T ^e | 12M | 12S | 12T | 24M | 24S | 24T |
| Galacturonic acid (mg/g of d.m.) | 93.9 | 86.9 | 83.1 | 80.8 | 79.8 | 59.4 | 42.2 | 43.6 | 42.9 | 44.0 |
| Galacturonic acid SD | 7.3 | 12.0 | 2.3 | 0.5 | 8.5 | 26.5 | 3.2 | 0.04 | 5.0 | 2.0 |
| Arabinose (mg/g of d.m.) | 69.4 | 54.1 | 32.9 | 31.3 | 28.1 | 28.3 | 44.0 | 23.4 | 29.6 | 37.6 |
| Arabinose SD | 0.4 | 0.2 | 2.0 | 0.3 | 6.9 | 5.3 | 8.3 | 1.3 | 4.0 | 0.2 |
| Xylose (mg/g of d.m.) | 39.2 | 30.3 | 29.3 | 29.1 | 44.4 | 41.3 | 49.4 | 52.6 | 48.0 | 50.9 |
| Xylose SD | 1.8 | 4.7 | 4.7 | 0.6 | 5.8 | 9.5 | 2.7 | 0.6 | 4.2 | 0.9 |
| Galactose (mg/g of d.m.) | 38.2 | 28.4 | 20.0 | 18.8 | 22.6 | 25.6 | 34.1 | 33.3 | 31.7 | 34.0 |
| Galactose SD | 0.8 | 4.7 | 1.3 | 1.3 | 3.1 | 9.0 | 3.5 | 1.4 | 3.4 | 0.4 |
| Glucose (mg/g of d.m.) | 30.0 | 31.9 | 39.1 | 38.3 | 49.0 | 45.2 | 46.2 | 53.5 | 54.2 | 54.3 |
| Glucose SD | 0.6 | 1.1 | 3.5 | 4.4 | 6.1 | 7.7 | 3.3 | 1.8 | 4.7 | 0.9 |
| Mannose (mg/g of d.m.) | 23.0 | 16.7 | 19.1 | 16.2 | 23.5 | 25.4 | 28.8 | 26.7 | 22.5 | 31.8 |
| Mannose SD | 3.3 | 1.6 | 5.1 | 3.2 | 1.0 | 5.0 | 1.2 | 1.4 | 1.0 | 5.0 |
| Rhamnose (mg/g of d.m.) | 9.4 | 7.7 | 5.7 | 6.0 | 7.8 | 5.5 | 7.2 | 5.4 | 6.0 | 6.8 |
| Rhamnose SD | 0.2 | 0.1 | 0.4 | 0.7 | 2.3 | 0.9 | 1.3 | 0.2 | 0.9 | 0.2 |
| Glucuronic acid (mg/g of d.m.) | 4.0 | 3.3 | 1.1 | 1.0 | 2.6 | 1.5 | 6.6 | 1.9 | 1.6 | 1.3 |
| Glucuronic acid SD | 0.9 | 0.04 | 0.4 | 0.3 | 1.8 | 0.1 | 7.3 | 1.0 | 0.3 | 0.3 |

^a Uncovered ^b Covered with snow ^c Middle ^d Side ^e Top