Supplemental file 1

Microbiology Spectrum

Metatranscriptome profiling of a specialized microbial consortium during the degradation of nixtamalized maize pericarp

José Germán Serrano-Gamboa a, Carlos Abraham Fócil-Espinosa a, Pedro J. Cabello-Yeves b, Felipe H Coutinho b, Rafael Antonio Rojas-Herrera a and Mónica Noel Sánchez-González a*

a Facultad de Ingeniería Química, Universidad Autónoma de Yucatán, Mérida, México.
b Evolutionary Genomics Group, Departamento de Producción Vegetal y Microbiología, Universidad Miguel Hernández, Alicante, Spain.

*Correspondence:
Name: Mónica Noel Sánchez-González
Email: monica.sanchez@correo.uady.mx

Supplemental material

Data Set S1. Functional annotation of predicted CAZymes encoded by PM-06 metatranscriptome. (S1A) General annotation of whole set of CDSs encoding putative CAZymes. (S1B) Classification of differentially expressed CAZymes by family number, bacterial genus, and target substrates.

Table S1. Predicted CAZymes and associated domains from PM-06 reference metatranscriptome targeting structural polysaccharides.

Figure S1. Recruitment plot of Paenibacillus macerans 8224 genome against 0 h metatranscriptome reads corresponding to 111.39 RPKG. Y-axis indicates percent of identity. X-axis indicates position in the genome (base pairs).

Figure S2. Heatmap showing the expression values log-CPM of all differentially expressed (21,000) transcripts of the PM-06 consortium across all samples (0, 4, 24 and 120 hours) along the degradation process of NMP.
### Table S1.

| CAZy family and classification | Number of coding sequences |
|-------------------------------|----------------------------|
| **Hemicellulases**             |                            |
| GH8                           | 1                          |
| GH10                          | 5                          |
| GH11                          | 1                          |
| GH26                          | 5                          |
| GH28                          | 3                          |
| GH31                          | 7                          |
| GH39                          | 1                          |
| GH42                          | 6                          |
| GH43                          | 22                         |
| **Cellulases**                |                            |
| GH5                           | 4                          |
| GH6                           | 3                          |
| GH9                           | 3                          |
| GH30                          | 1                          |
| GH44                          | 1                          |
| GH48                          | 1                          |
| GH51                          | 5                          |
| GH74                          | 1                          |
| GH94                          | 4                          |
| **Deacetylases**              |                            |
| CE1                           | 40                         |
| CE4                           | 47                         |
| CE10                          | 34                         |
| CE14                          | 13                         |
| **Oligosaccharide-degrading enzymes** |    |
| GH1                           | 20                         |
| GH2                           | 17                         |
| GH3                           | 30                         |
| Category                        | Enzyme(s) | Count |
|--------------------------------|-----------|-------|
| GH35                           | 5         |
| GH39                           | 1         |
| GH52                           | 1         |
| Oxidative enzymes              |           |
| AA3                            | 7         |
| AA10                           | 3         |
| Polysaccharide liases          |           |
| PL1                            | 1         |
| PL3                            | 1         |
| PL5                            | 1         |
| PL9                            | 2         |
| Carbohydrate-binding modules   |           |
| CBM3                           | 11        |
| CBM5                           | 2         |
| CBM6                           | 4         |
| CBM21                          | 3         |
| CBM32                          | 8         |
| CBM35                          | 6         |
| CBM41                          | 2         |
| CBM44                          | 2         |
| CBM48                          | 7         |
| CBM56                          | 2         |
| CBM59                          | 1         |
| CBM66                          | 4         |
| CBM67                          | 4         |
| Other domains                  |           |
| S-layer homology (SLH)         | 12        |
Supplemental file 1

Figure S1.
Supplemental file 1

Figure S2.