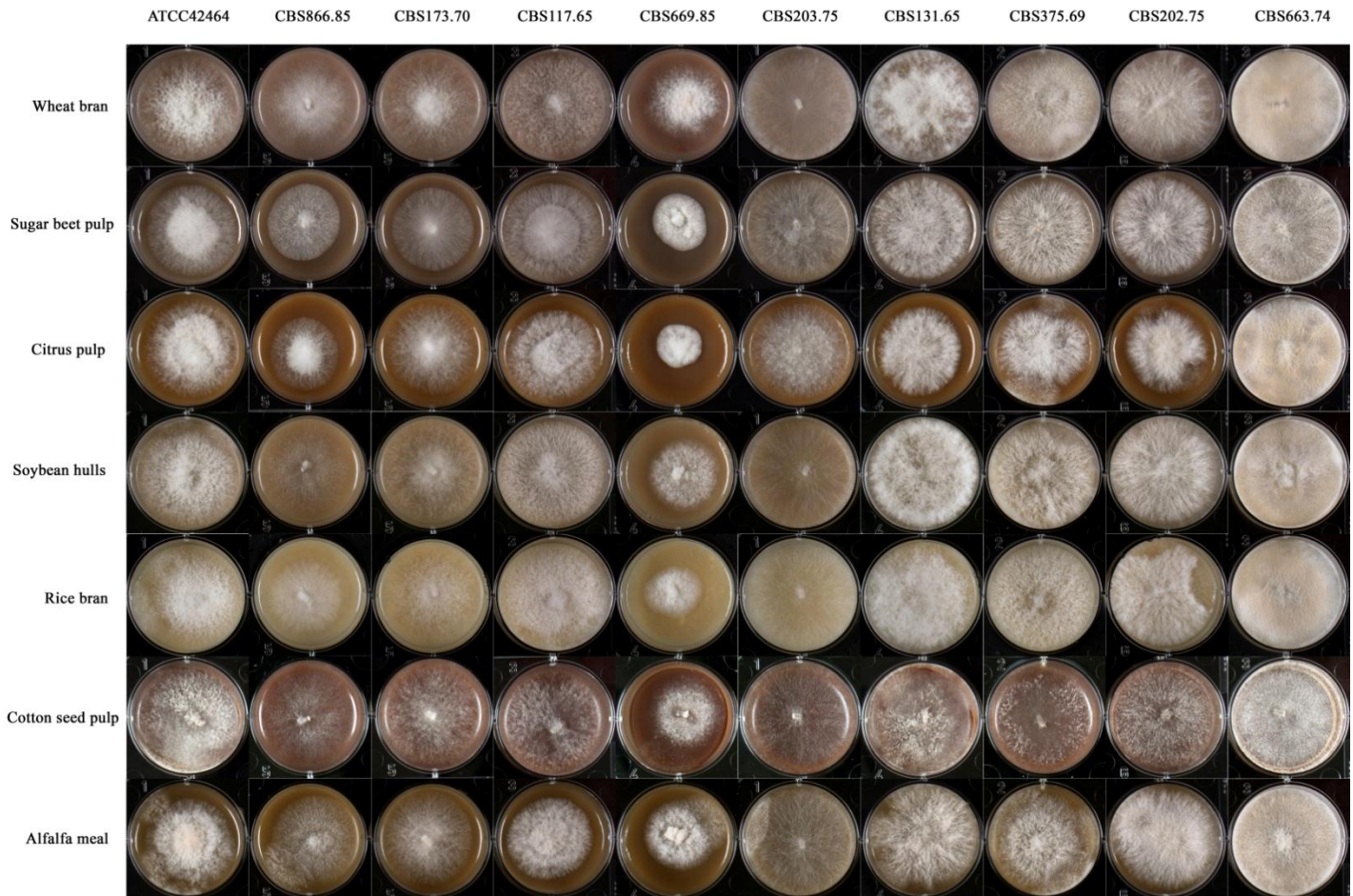


Supplemental material 1A.

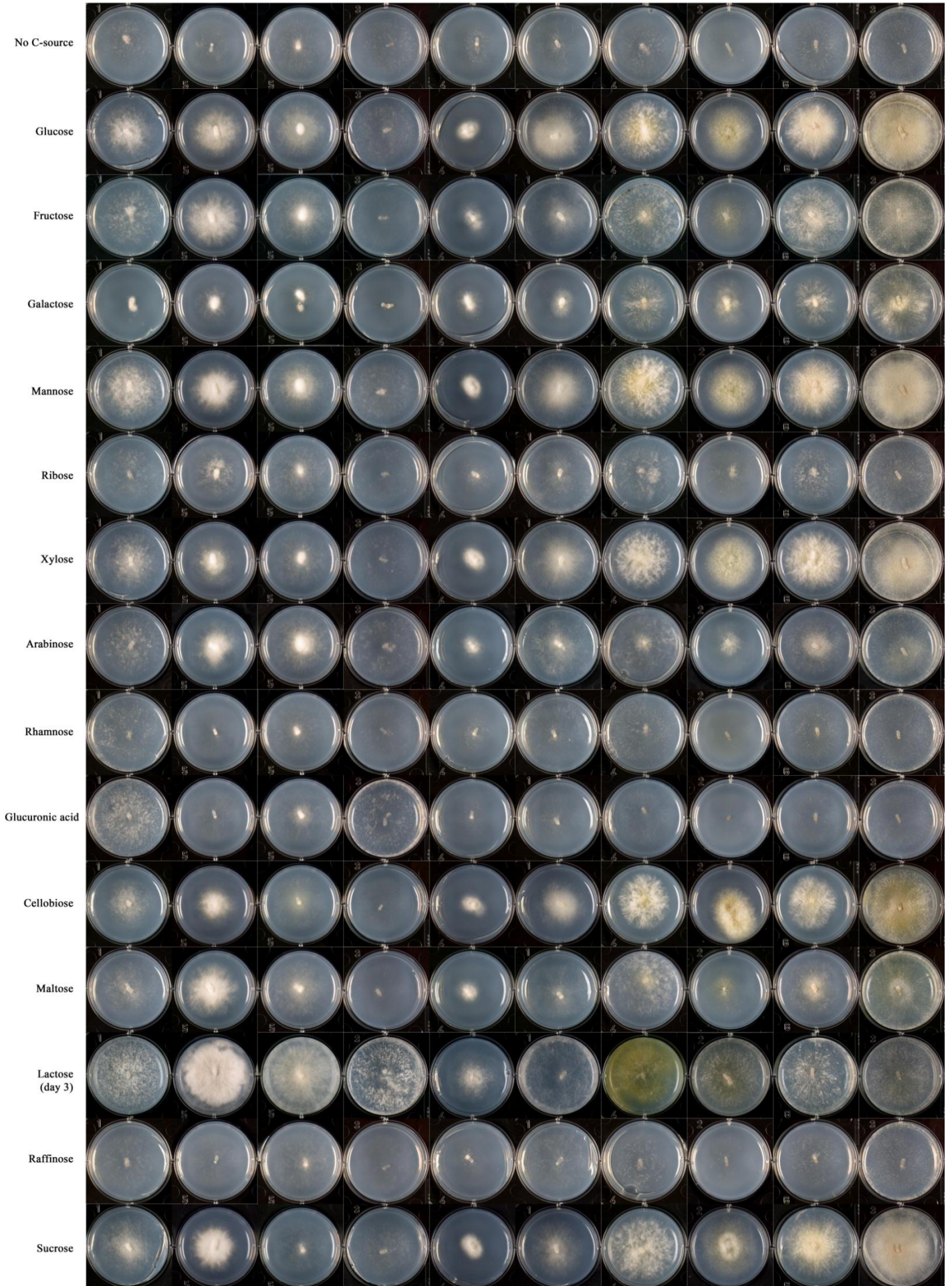
Growth profiles of 10 isolates belonging to *M. thermophila* and *M. heterothallica*.

Growth was compared on Minimal Media with different carbon sources at the following concentrations: 25 mM for D-glucose, D-fructose, D-galactose, D-mannose, D-ribose, D-xylose, L-arabinose, L-rhamnose, D-galacturonic acid, D-glucuronic acid, cellobiose, maltose, lactose, raffinose and sucrose, 1% (w/v) for arabinogalactan, beechwood xylan, birchwood xylan, Arabic gum, guar gum, soluble starch, apple pectin, citrus pectin, inulin, casein, calcium lignin and α -cellulose, and 3% (w/v) for wheat bran, sugar beet pulp, citrus pulp soybean hulls, rice bran, cotton seed pulp and alfalfa meal. The pH of the medium was adjusted to 6.0 and the medium was autoclaved at 121°C for 20 minutes. Pectin media was made at pH4, pH6 and pH8. Monosaccharides were separately sterile filtered (Whatman 0.2 μ m millipore filter, Dassel, Germany), and were added to the autoclaved medium before it solidified.

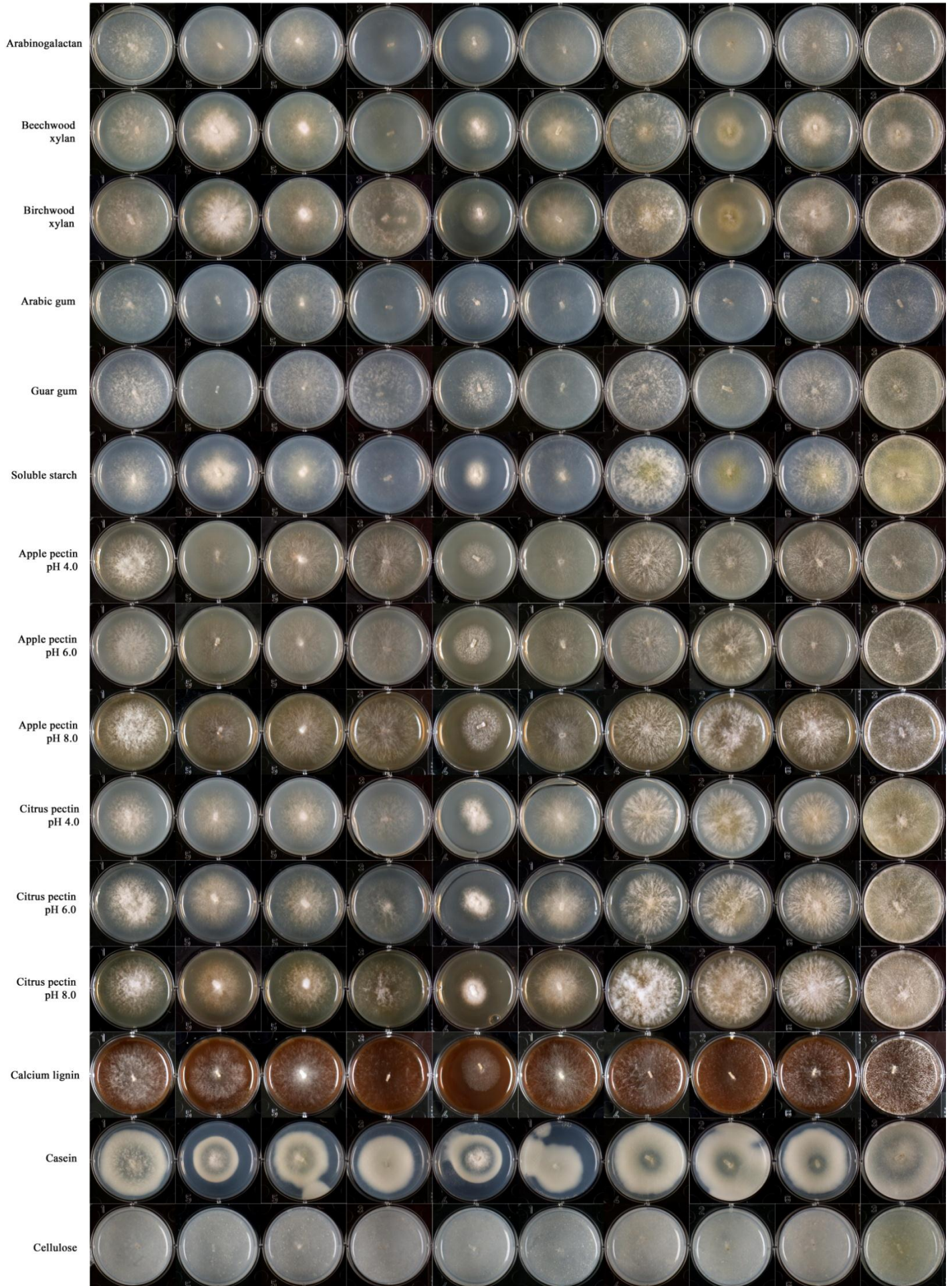
The growth of each *Myceliophthora* isolate was compared on the different media mentioned above; Minimal Media without a carbon source was used as the negative control in this experiment. All isolates were initially grown on MEA. A small agar plug containing mycelium (1 mm diameter) was transferred from the edge of a vigorously growing 1-day-old colony to the center of the Petri dishes with the different media. The cultures were incubated in the dark at 45°C and pictures were taken after 2 days growth. Pictures of growth on lactose medium were taken after 3 days. The growth-test was conducted twice for each strain.



ATCC42464 CBS866.85 CBS173.70 CBS117.65 CBS669.85 CBS203.75 CBS131.65 CBS375.69 CBS202.75 CBS663.74

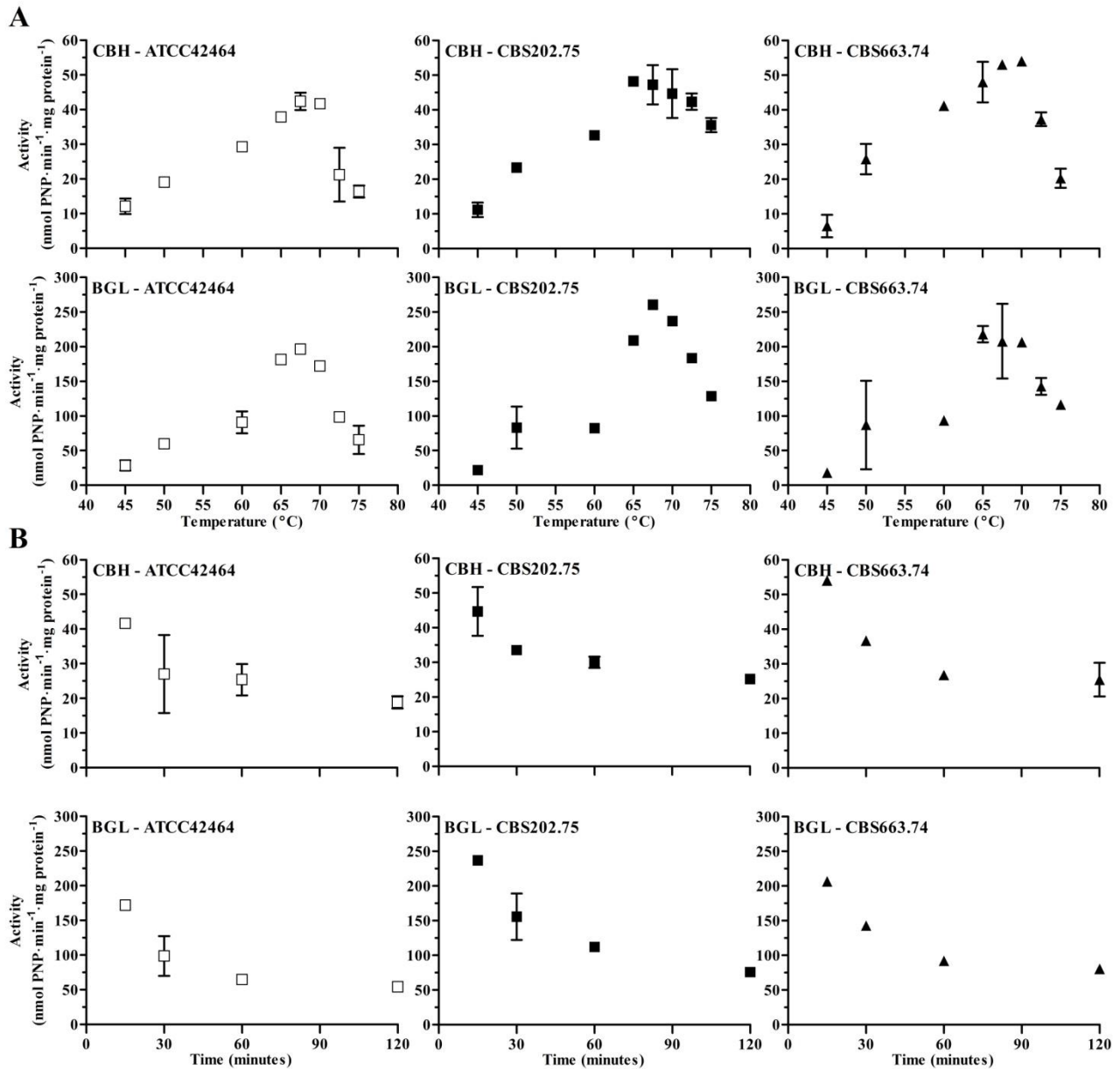


ATCC42464 CBS866.85 CBS173.70 CBS117.65 CBS669.85 CBS203.75 CBS131.65 CBS375.69 CBS202.75 CBS663.74



Supplemental material 1B.

Characterization of enzyme mixtures of *M. thermophila* ATCC42464 and *M. heterothallica* CBS202.75 and CBS663.74 after 4 days of growth on wheat straw. A) Enzyme activities of cellobiohydrolase (CBH) and β -glucosidase (BGL) at a temperature range between 45 – 75 °C. B) Enzyme activities of CBH and BGL after different incubation times at 70°C. The averages and standard deviations represent two independent cultivations and six technical replicates.



Supplemental material 1C.

Protein profiles of *M. thermophila* ATCC 42464 and *M. heterothallica* CBS 202.75 and CBS 663.74 during 5 days growth on wheat straw (pretreated with 20% HCl) at 45°C. The numbers at the bottom of each lane shows the protein concentration in grams per liter with standard deviation of three technical replicates.

