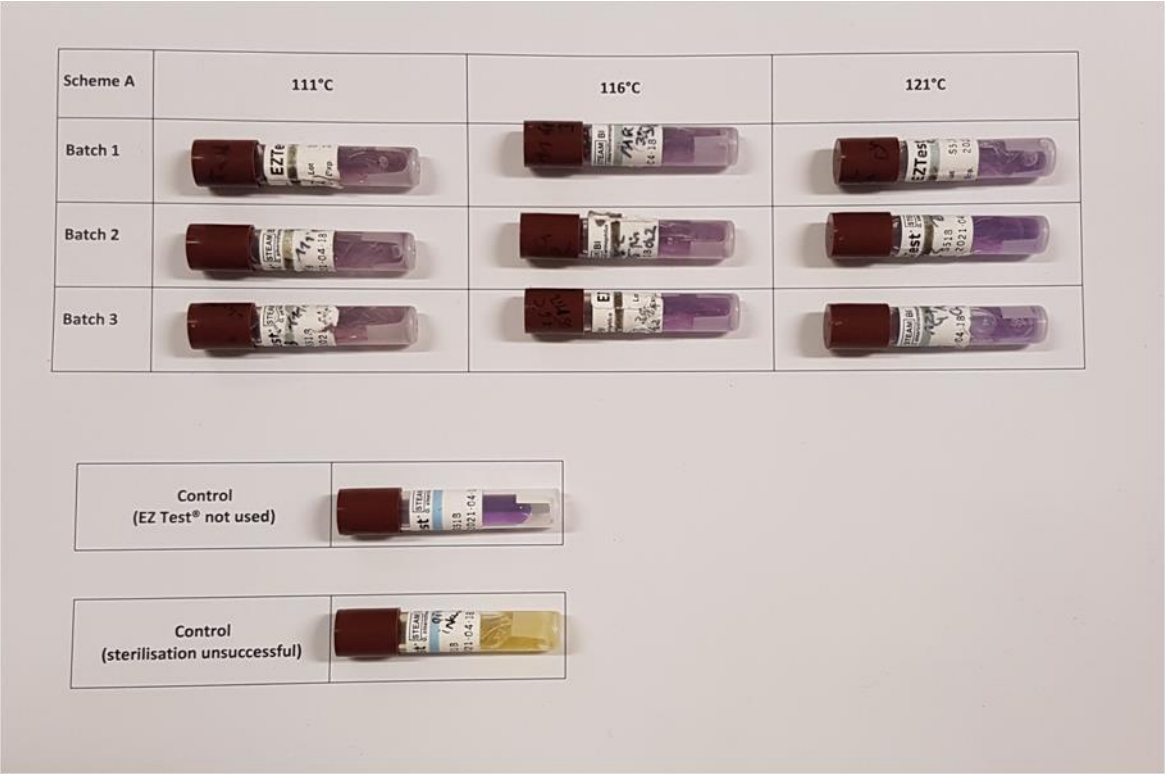


Figure S1. EZ-Tests® for the control of germ killing of the lead germ *Geobacillus stearothermophilus* after heat sterilization.



This figure shows the successfully performed heat sterilization at an F0 value suitable for sterility (according to Table 2 in the manuscript).

Graphical representation of the concentrations of degradation products in 10 % glucose solutions at different temperatures (111 °C; 116 °C and 121 °C) and different F0 times according to autoclaving schemes A and B.

Figure S2. Concentrations of GO after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

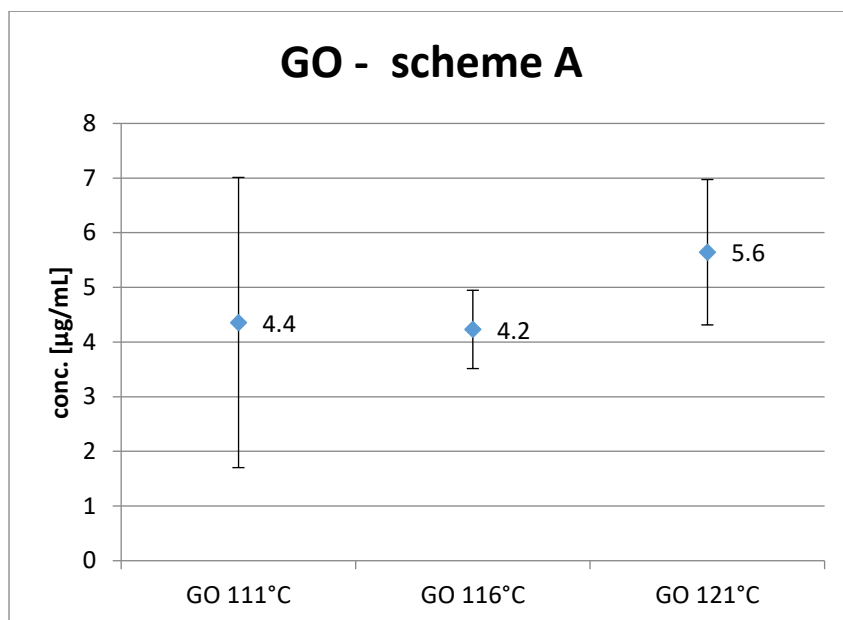


Figure S3. Concentrations of MGO after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

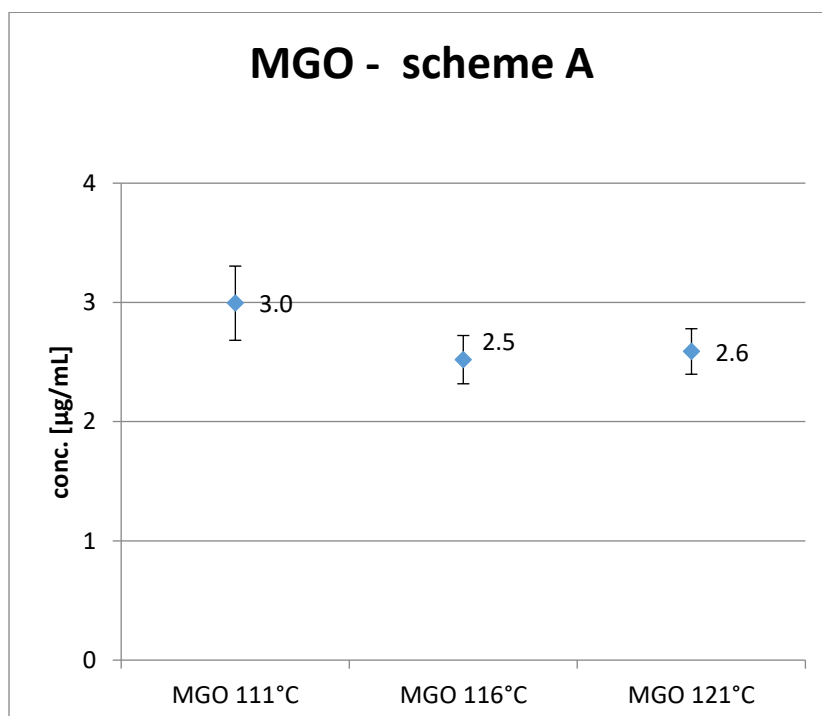


Figure S4. Concentrations of 2-KDG after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

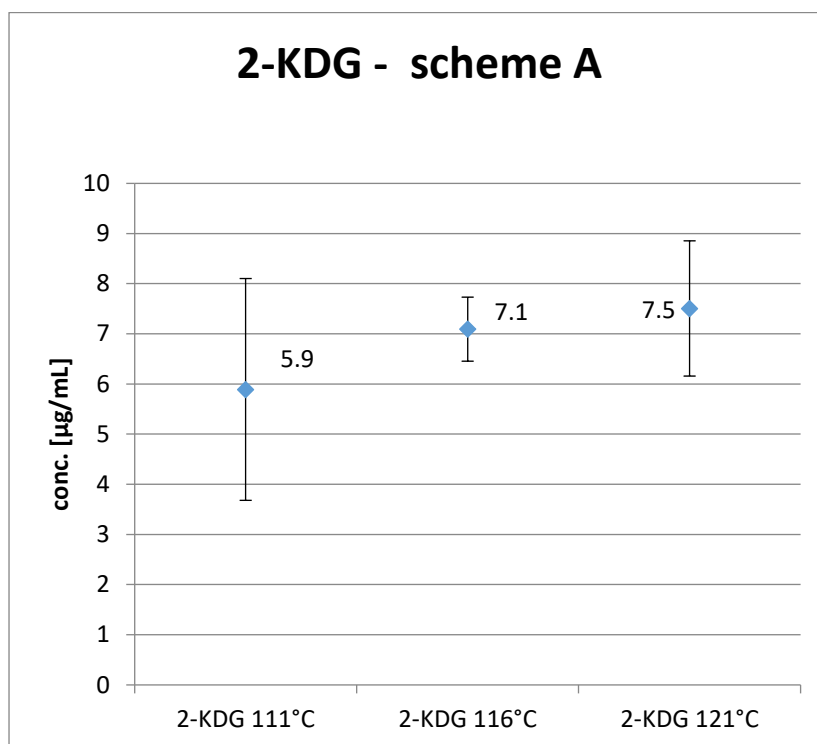


Figure S5. Concentrations of 3-DG/3-DGal after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

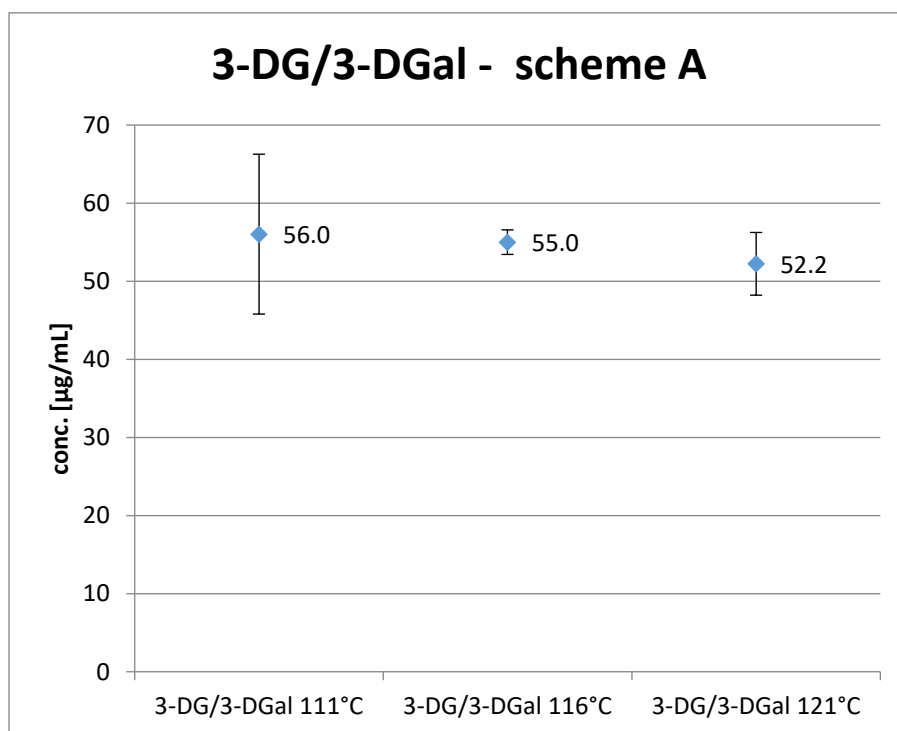


Figure S6. Concentrations of 3,4-DGE after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

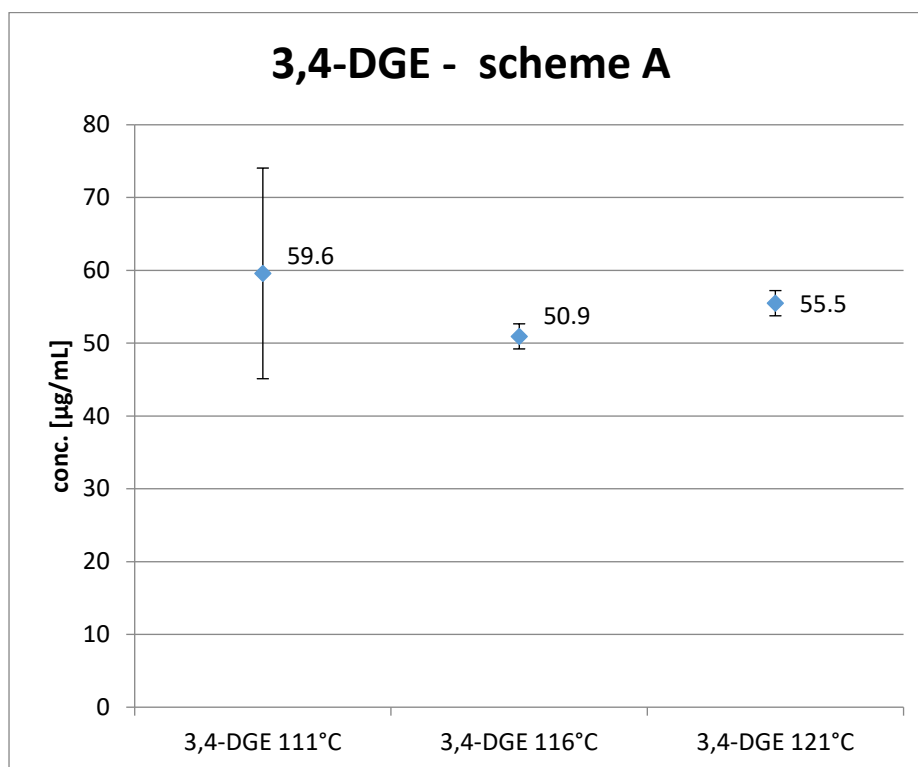


Figure S7. Concentrations of 5-HMF after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme A ($n=27$).

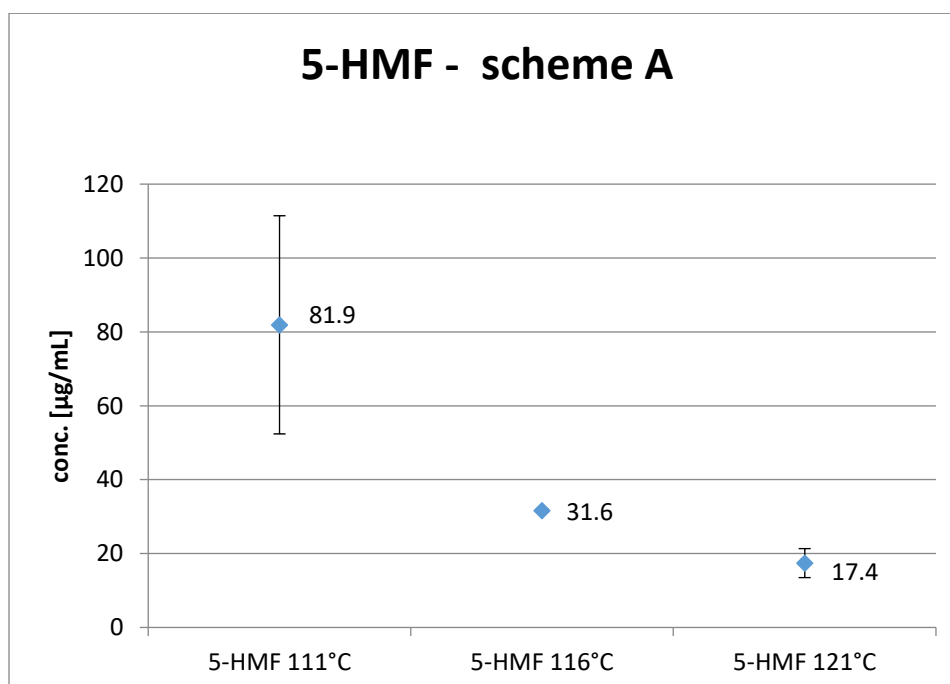


Figure S8. Concentrations of GO after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

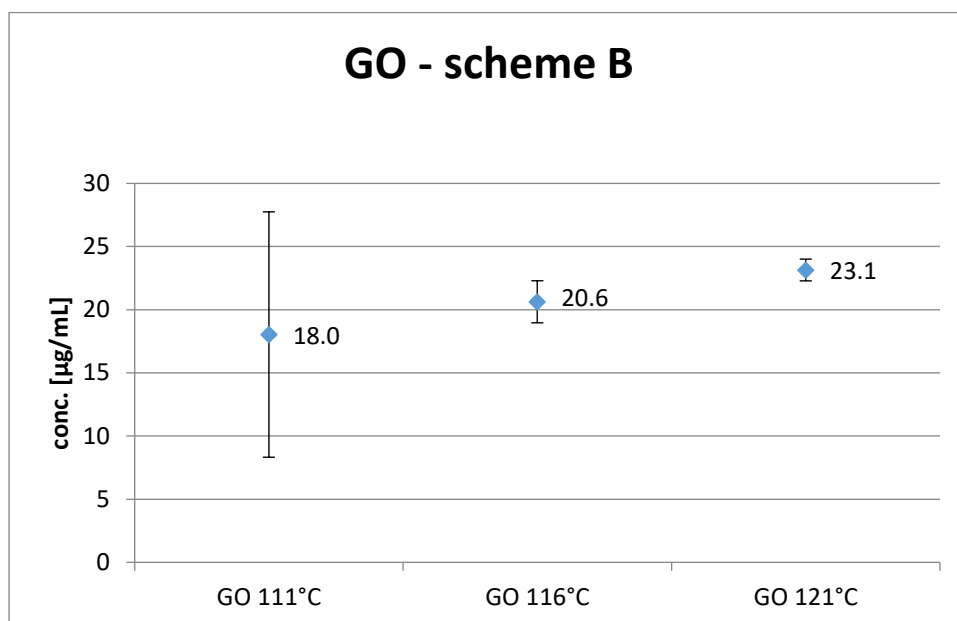


Figure S9. Concentrations of MGO after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

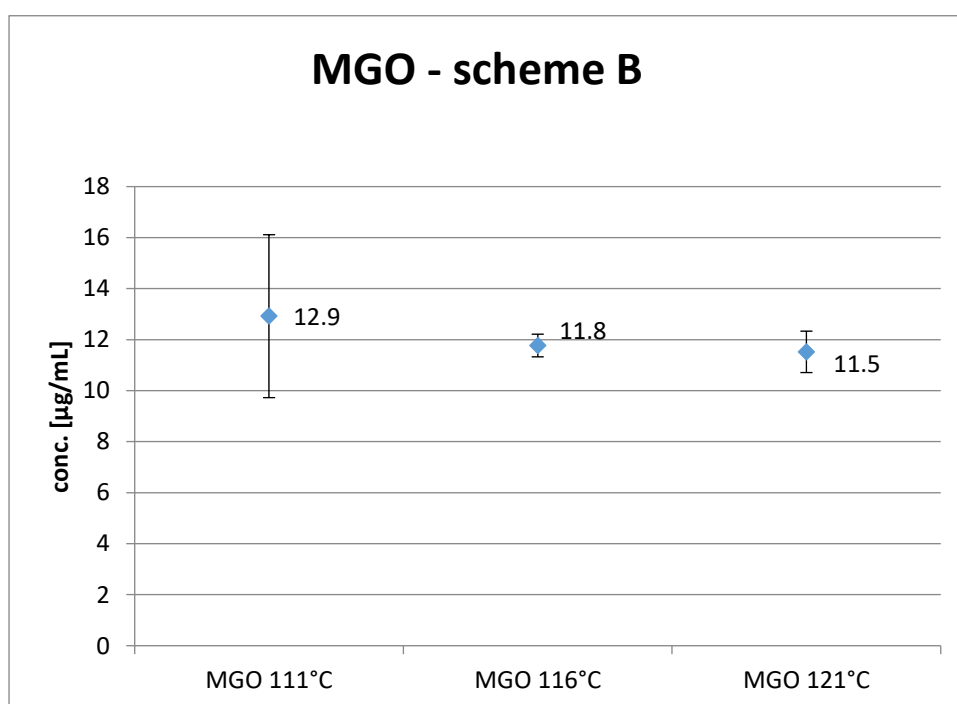


Figure S10. Concentrations of 2-KDG after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

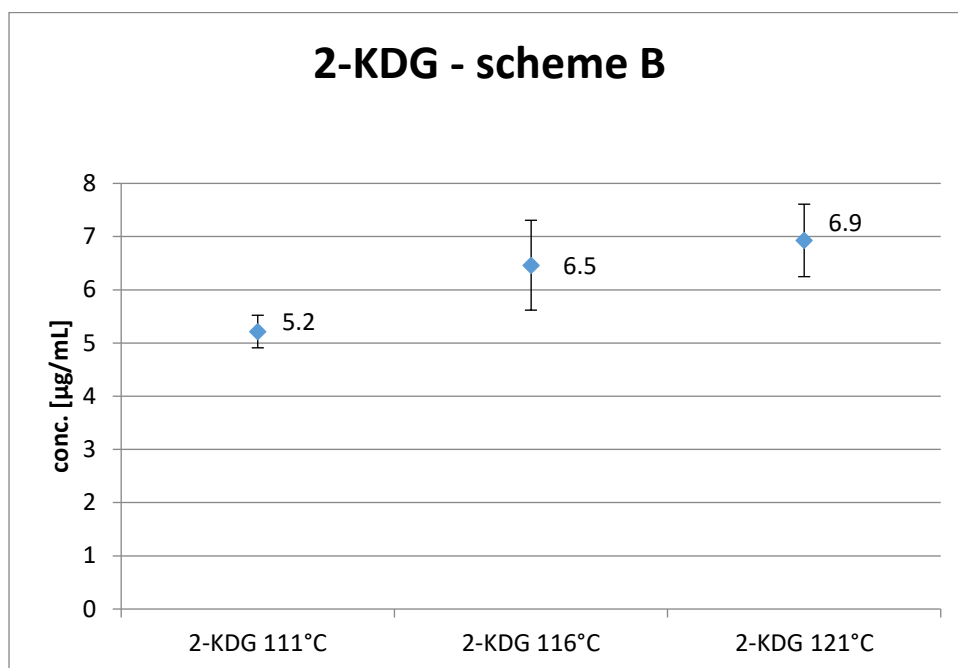


Figure S11. Concentrations of 3-DG/3-DGal after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

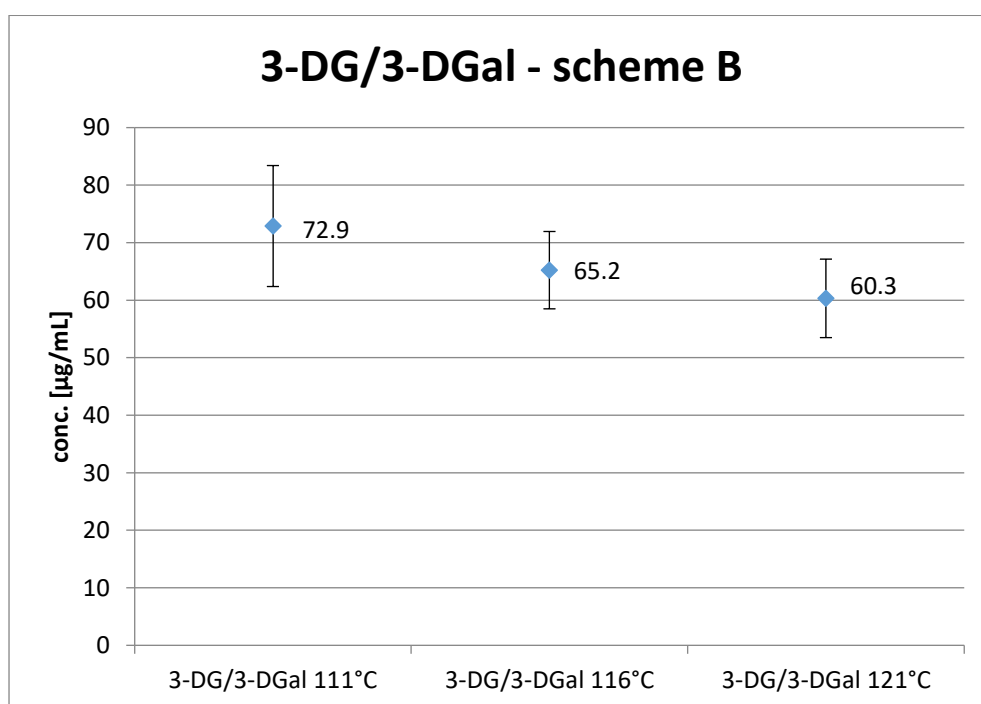


Figure S12. Concentrations of 3,4-DGE after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

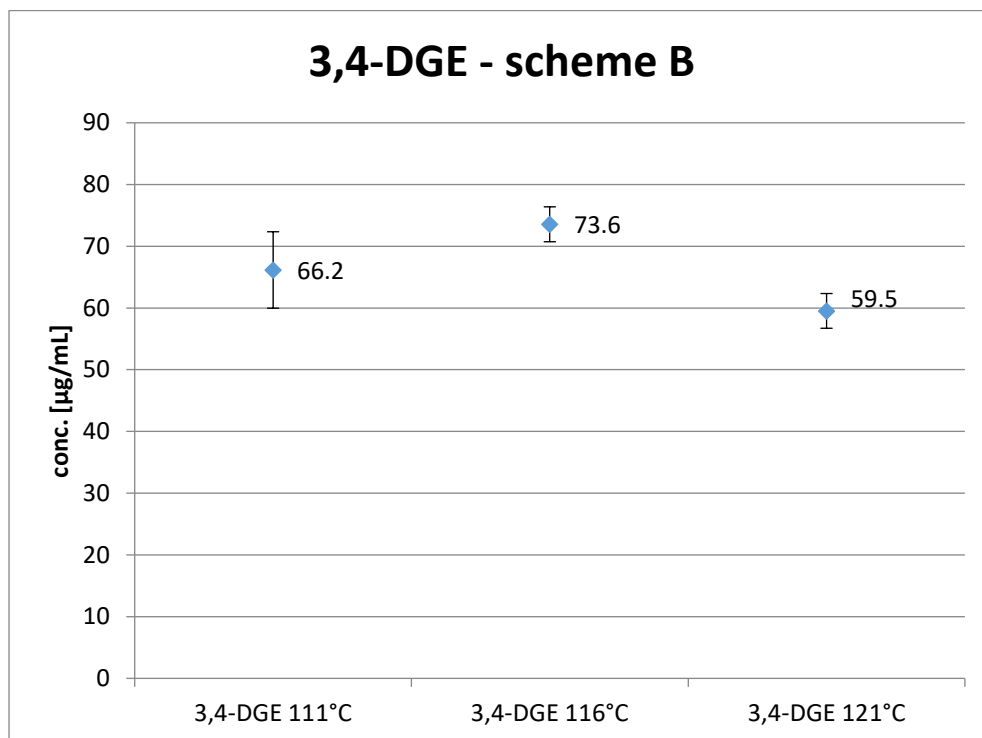


Figure S13. Concentrations of 5-HMF after heat sterilization of 10 % glucose solutions at 111 °C, 116 °C and 121 °C autoclaved according to scheme B ($n=27$).

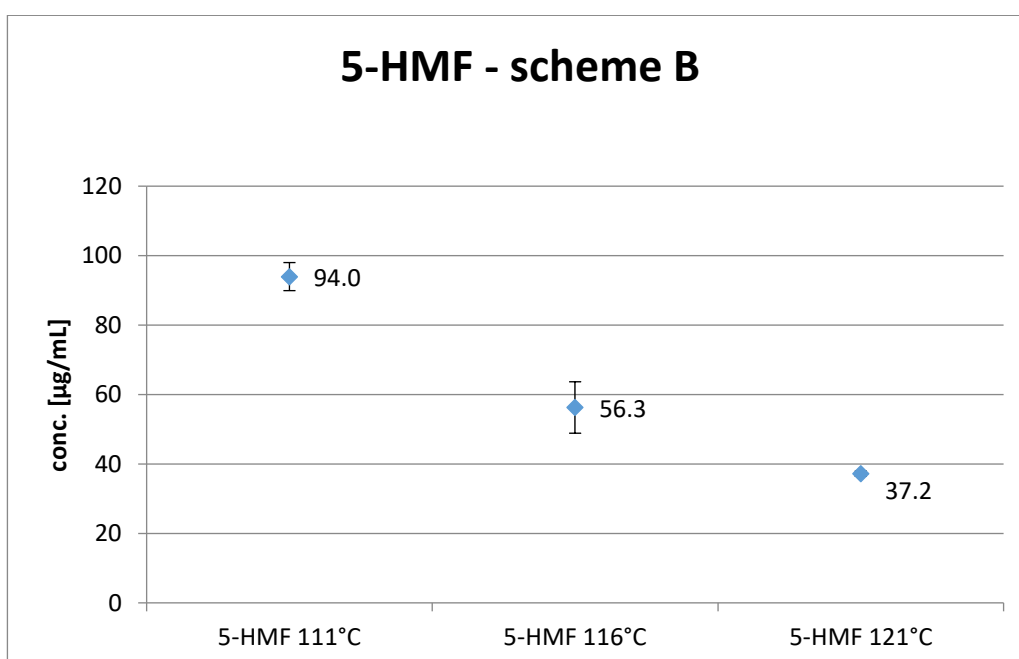


Figure S14. Concentrations of GDPs in 10 % (w/v) glucose solutions in PP bottles heat sterilized at 121 °C for 350 min (F0 = 202 min) ($n=9$).

