

Table S1: Raw data for water content

	Time(seconds)	Water Content per 100 embryos in microliters								
NT	NA	2.3	2.1	1.9	2.2	2.3	2.2	2.3	2.1	2.2
TE	180	2.3	2.2	2.2	2.2	2.4	2.1	2.5		
TC	180	2.7	2.3	2	2.4	2.4	2.6	2.9	2.5	2.7
EG10	600	2.1	1.8	1.9	2.4	2.1	2.1	1.9	1.9	
EG37	720	1.7	1.9	2.3	1.6	1.7	1.8			
EG40+T	720	1.2	1.4	1	1	1.5	1.2	1.4		

Table S2: Means and Standard Deviations for water content and the embryonic supercooling points

	Mean Water Content (μl)	Standard Deviation	Replicate count (n)	Mean ± SD Supercooling point (°C)
NT	2.2	0.13	9	-17.6 ± 4.8
P80	2.3	0.14	7	-16.3 ± 3.3
P80+Clx	2.5	0.26	9	-18.1 ± 6.1
EG10	2.03	0.19	8	-18.7 ± 7.0
EG37	1.8	0.25	6	-16.9 ± 3.4
EG40+T	1.24	0.19	7	-19.5 ± 2.8

Abbreviations

NT – Not treated; P80 – 0.5% Polysorbate 80; P80+Clx – P80 + 10% sodium hypochlorite; EG10 – 1,2-ethanediol (10%); EG37 – 1,2-ethanediol (37%); EG40+T – 40% 1,2-ethanediol in 0.5 molar trehalose; SD – standard deviation of the mean. **Note:** all ethanediol and trehalose based solutions were mixed in Grace's insect cell culture medium.

Methods in brief: Tables S1 and S2 depict the same data set in raw and condensed form. The data was obtained by scanning the sunflower moth embryos in a differential scanning microcalorimeter at 1.5°C/min from 4°C to -40°C in a Perkin Elmer DSC7. The water content was derived from the area of integrated freeze exotherms of the embryos. Treated and untreated *Homoeosoma electelum* embryos that were airdried for 30 seconds were placed in a 50 microliter aluminum pan, covered in halocarbon oil (HC-700, Halocarbon corp., SC, USA) and sealed prior to being scanned.