

**File S2**

Results of survival rates, developmental times, and growth rates of *Tenebrio molitor* larvae at 20 °C, 25 °C, and 30 °C, and long-day LD, short-day SD, and constant darkness 24D.

**Table S1** Survival rates (mean values  $\pm$  standard deviation in %) of mealworms at 20 °C, 25 °C, and 30 °C and LD, SD, and 24D photoperiods. n = number of plastic boxes per treatment; individuals = total number of investigated larvae. For detail on significant differences, see Supplement 3.

Temperature	Photoperiod	Mean $\pm$ SD	n	Individuals
20 °C	LD	93.8 $\pm$ 5.8	10	192
	SD	91.9 $\pm$ 7.6	10	199
	24D	90.4 $\pm$ 7.6	10	196
25 °C	LD	96.5 $\pm$ 4.7	10	200
	SD	96 $\pm$ 5.2	10	200
	24D	98.5 $\pm$ 2.4	10	199
30 °C	LD	94.1 $\pm$ 7.7	10	196
	SD	97.5 $\pm$ 3.6	10	198
	24D	98.5 $\pm$ 3.4	10	199
20 °C	All	<b>92 <math>\pm</math> 7.0</b>	30	587
25 °C	All	<b>97 <math>\pm</math> 4.3</b>	30	599
30 °C	All	<b>96.7 <math>\pm</math> 5.4</b>	30	593
All	LD	<b>94.8 <math>\pm</math> 6.1</b>	30	588
	SD	<b>95.1 <math>\pm</math> 6</b>	30	597
	24D	<b>95.8 <math>\pm</math> 6.2</b>	30	594
	Overall mean	<b>95.2 <math>\pm</math> 6</b>	90	1779

**Table S2** Developmental time (mean values  $\pm$  standard deviation in days) of mealworms at three temperatures (20 °C, 25 °C, and 30 °C) and three photoperiods (long day LD, short day SD, and darkness 24D). n = number of plastic boxes per treatment; individuals = total number of investigated larvae. For details on significant differences among experimental conditions, see Supplement 4.

Temperature	Photoperiod	Mean $\pm$ SD	n	Individuals
20 °C	LD	188.9 $\pm$ 4.5	10	180
	SD	176.4 $\pm$ 5.9	10	183
	24D	189 $\pm$ 5.2	10	177
25 °C	LD	141.5 $\pm$ 7.5	10	193
	SD	146.8 $\pm$ 5.6	10	192
	24D	125.6 $\pm$ 4.2	10	196
30 °C	LD	139.8 $\pm$ 8.3	10	185
	SD	132.5 $\pm$ 10.1	10	193
	24D	136.3 $\pm$ 6.4	10	196
20 °C	All	<b>184.8 <math>\pm</math> 7.9</b>	30	540
25 °C	All	<b>138 <math>\pm</math> 10.8</b>	30	581
30 °C	All	<b>136.2 <math>\pm</math> 8.7</b>	30	574
All	LD	<b>156.7 <math>\pm</math> 24.1</b>	30	558
	SD	<b>151.9 <math>\pm</math> 20</b>	30	568

24D	<b>150.3 ± 28.7</b>	30	569
Overall mean	<b>153 ± 24.4</b>	90	1695

**Table S3** Growth rate (mean values ± standard deviation in %) of mealworms at three temperature regimes (20 °C, 25 °C, and 30 °C) and three photoperiods long day LD, short day SD, and darkness 24D. n = number of plastic boxes per treatment; individuals = total number of investigated larvae. For details on significant differences among experimental conditions, see Supplement 5.

<b>Temperature</b>	<b>Photoperiod</b>	<b>Mean ± SD</b>	<b>n</b>	<b>Individuals</b>
20 °C	LD	23.7 ± 1.1	10	171
	SD	27 ± 1.1	10	177
	24D	24.8 ± 1.3	10	169
25 °C	LD	35.1 ± 3.4	10	186
	SD	32.3 ± 2.6	10	183
	24D	41.2 ± 1.6	10	188
30 °C	LD	38.8 ± 2.7	10	177
	SD	37.7 ± 3.5	10	184
	24D	41.1 ± 3.7	10	188
20 °C	All	<b>25.1 ± 1.8</b>	30	517
25 °C	All	<b>36.2 ± 4.5</b>	30	557
30 °C	All	<b>39.2 ± 3.5</b>	30	549
All	LD	<b>32.5 ± 7</b>	30	534
	SD	<b>32.3 ± 5.1</b>	30	544
	24D	<b>35.7 ± 8.2</b>	30	545
	Overall mean	<b>33.5 ± 7.0</b>	90	1623