Effects of Temperature and Day Length on the Control of Seasonal Development of Noctuid Moth *Emmelia trabealis* L. (Lepidoptera: Noctuidae)

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Abstract—The influence of temperature and day length on the development duration and diapause induction was investigated in the Belgorod population (50°N, 36°E) of the noctuid moth *Emmelia trabealis*. The induction of pupal diapause is controlled by the photoperiodic response of a long-day type with critical threshold close to 16 h at 24°C. At 20°C and 18L : 6D, 40% of pupae were active, other photoperiods induced 100% diapause. The presence of an active fraction of pupae under long-day conditions furnishes an opportunity to produce the second generation of *E. trabealis* in the forest-steppe zone of Russia.