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Growth regulation and disease management in silkworms using *Psoralea corylifolia* L.: A review

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Abstract

Juvenile hormone (JH) analogs are required for enhancing silk production in *Bombyx mori* (*Bm*), but the developmentally toxic and environmentally damaging chemical juvenoids methoprene and fenoxycarb are not suitable. This review highlights the distinctiveness of bakuchiol from *Psoralea corylifolia* L. as a non-toxic phytojuvenoid, which possesses the potential to prolong larval life, delay metamorphosis, and induce silk gland function at 1.25 ppm in the fifth instar stage, leading to maximum cocoon weight, shell weight, and filament length. In addition, the phenolic compounds and tannins in *P. corylifolia* prevent viral *Bm*NPV grasserie disease in larvae by reducing larval mortality. Therefore, *P. corylifolia* is a practical and eco-friendly method for achieving sustainable sericulture productivity.

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