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## Pink Bollworm Larvae Infection with a Double Subgenomic Sindbis (dsSIN) Virus to Express Genes of Interest

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Genetic transformation of insects depends on clear expression of marker genes for selection and effective expression of heterologous proteins. An established framework of genetic studies is helpful in the design of reliable transforming constructs. The background these studies provide is most often not available for insects other than *Drosophila*. Accordingly, a reliable method to test simply the design of expression constructs would be of great value. This study shows that the Sindbis double subgenomic viral vector, which has been engineered successfully to direct mosquito cells to express green fluorescent protein, also will direct the expression of green fluorescent protein in vivo in pink bollworm larvae [*Pectinophora gossypiella* Saunders, Lepidoptera: Gelechiidae]. Expression of green fluorescent protein was not uniform within all tissues of the infected larvae, and certain tissues expressed fluorescence more strongly than others did. Additionally, expression was much greater in larvae than in adult tissues. Such viral constructs drive expression of heterologous proteins in a rapid and dependable manner and in a wide range of species. These properties can be used to evaluate the integrity of protein-expressing constructs before any labor-intensive transformation efforts are undertaken. Finally, as these virus-infected insects are not transgenic, the extensive containment necessary for transgenic arthropods is not needed.