MATING SPECIFICITY IN *SPODOPTERA* SPP.— (*Note*). Laster (1972, Environ. Ent. 1: 682-7) discovered that in the laboratory the progeny of *Heliothis virescens* (F.) that mated with *H. subflexa* (Guenée), a closely related species, were sterile. He therefore proposed that native *H. virescens* populations might be controlled by releases of these sterile hybrids. In various trapping experiments, I have observed cross sex attraction among several *Spodoptera* species. For example, traps baited with *Spodoptera exigua* (Hubner) often attract males of *S. eridania* (Cramer), and female *S. eridania* attract male *S. exigua* though female *S. frugiperda* (J. E. Smith) attract only conspecific males.

I report here the results of experiments designed to determine the degree of cross mating, if any, among several species of *Spodoptera* (Guenée).

All insects used in the experiments were reared from larvae maintained on artificial diet (Burton, R. L. 1970, J. Econ. Ent. 63: 1969-70). The insects were sexed in the pupal stage and held separately until they were tested. All possible male-female combinations were made among *S. exigua*, *S. eridania*, *S. frugiperda*, and *S. ornithogalli*. The moths (5 females and 10 males) of each combination were confined in 3.8-liter paper cartons with screened ends, and they were held in a temperature-controlled cabinet maintained at ca. 27°C and 65% RH under a 14:10 light:dark cycle. The moths remained together until all insects in each cage died. Then they were collected and preserved in 70% alcohol. Later the insects were sexed, and the females were dissected for evidence of mating (the presence of a spermaphore in the bursa copulatrix). Each treatment (male:female combination) was replicated 2-3 times. Controls (5 females and 10 males of each species) were maintained to confirm conspecific mating in the test conditions.

Mating among conspecific males and females was: *S. exigua*, 67%; *S. eridania*, 63%; *S. frugiperda*, 84%; *S. ornithogalli*, 57%. There was no evidence of cross mating between any of the *Spodoptera* spp. Therefore, the possibility of obtaining hybrid sterility among 2 or more species in this particular group of *Spodoptera* in the laboratory or in nature appears remote despite the evidence of cross sex attraction in the field.—E. R. Mitchell, Insect Attractants, Behavior, and Basic Biology Research Laboratory, Agr. Res. Serv., USDA, Gainesville FL 32604. I gratefully acknowledge the following personnel of this laboratory for their assistance in insect rearing—C. Green, I. Rodgers, and R. Hines.