

ranean attacks of the larvæ of this species on the roots of alfalfa. Thus, within five years, this insect has advanced from one of apparently little or no economic importance, to one of the pests of the alfalfa field that must be reckoned with by alfalfa growers in future.

In 1909 Mr. Hyslop, in his entomological investigations about Pullman, Washington, found that the larvæ of the moth *Autographa gamma californica* attacked alfalfa plants, but these injuries were encountered so rarely that there did not appear to be any good reason for paying any special attention to the species. It was, however, convenient to carry on the observations, and in doing this Mr. Hyslop became impressed with the possibility that, in the event of its natural enemies becoming so reduced as to be unable to hold the species in check, it might become an insect of much more economic importance than his observations at that time would indicate. But, here again, it was difficult to explain, clearly, the necessity for the expenditures of time and funds required to carry out the investigation of the species, or to ask for the publication of the results. During the summer of 1914 the very conditions that it was thought might possibly come to prevail, did actually develop. Something transpired to prevent the development of the natural enemies of *Autographa*, in sufficient numbers to keep the pest in check, and as a result, throughout a number of the northwestern States, the species became a veritable scourge, and many letters were received complaining of its ravages.

In June, 1884, *Toxoptera graminum*, now better known as the notorious green bug, was introduced into a breeding cage in northern Indiana, where the writer was temporarily located. Up to that time the species was not known to occur in America excepting at one point, Cabin John Bridge, Maryland, a few miles north of Washington; and while, as later examination of the old records show, that the species had probably been injurious in Virginia two years prior to that date, at the time of the accidental introduction into the writer's breeding cages, it was not known as a destructive insect at all, and therefore the investigation made at that time was barely warranted by its then economic importance. Since that time it has come to be one of the most destructive pests of the grain field, and is probably more dreaded by the grain growers of