

own observation can be due to this insect, I wish to state beforehand that I have no thought of discrediting Prof. Comstock's observations, or questioning the ability of the *Thrips* he describes to cause all the injury credited to it. It is evident, upon slight examination of the subject, that the same appearance of the grass may be produced by very different agents, provided they attack the same point in the stem. Any injury to the juicy base of the terminal node that cuts off the flow of the sap to the head during a certain stage of its growth must produce the withering and whitening so conspicuous in affected fields. Starting with this premise it is reasonable to conclude that the trouble *may* result from a number of different agents, and such, I believe, to be actually the case as a result from the sum of my observations here presented.

During the past two seasons I have examined with care a great number of affected stems, usually with the aid of a hand lens. For the season just past my observations in the field were interrupted, shortly after the appearance of Silver-top, by a trip to Washington. But while absent I had a graduate student collect as many of the whitened stalks as he could and place them in alcohol, and these have been examined also so as to make the observations extend through as much of the season as possible. In a very few cases I have seen evidence of fungi present in the shrivelled base of the withered node, but so very few and in such cases so evidently a consequent of the injury that I do not think it can be credited with any of the damage.

In a very small proportion of cases I have found *Thripidae* present in the injured part, and in so few when the greatest care was taken to get stems that were but just beginning to show injury, that I feel forced to abandon the view that these are the principal agents in the injury here. Dipterous larvæ have been still less frequent and I feel positive that only an exceedingly small part of the damage for the region studied can be referred to them. Moreover, I think that in fully ninety per cent. of the stems examined (so many examinations have been made at odd times during my walks, and in spare moments, that no exact percentage can be given,) no insect of any kind was found to be within the sheath of the injured stem.

Punctures of insects have been noticed in great abundance on the parts of the plant around these injured parts, and in many cases evidence of the puncture of the succulent portion itself was apparent. The character of these punctures agreeing closely with those known to be