# THE APHID-VIRUS COMPLEX IN WISCONSIN'S LANDSCAPE

Claudio Gratton [1/]

Soybean aphid is an invasive species that not only directly influences soybean plants through effects on yield, but also affects soybeans indirectly through its interactions with other species in the environment. Most notably, predators and other herbivores may be affected by the presence of soybean aphid. Fields with large populations of aphids are exporters of the predaceous multicolored Asian lady beetle. The presence of soybean aphids in the environment therefore could effect predation on other species susceptible to lady beetles. In addition, the way the soybeans cope with stresses is likely to be altered in the face of this new species. For example, soybeans plants that are challenged with aphids may be either less or more able to deal with pathogen infections. Alternatively, virus infected plants may become more or less preferred by aphids, potentially affecting the spread of pathogens within and among fields. Thus, in order to more fully understand the ways in which soybean aphids influence soybeans and their yields and to develop the best ways to manage these novel pests will require a multifaceted approach that integrates our knowledge of the biologies of aphids, pathogens, other herbivores, and predators.

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