

The Legacy of Charles Marlatt and Efforts to Limit Plant Pest Invasions

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Author:

Andrew M. Liebhold and Robert L. Griffin

Abstract

The problem of invasions by non-native plant pests has come to dominate the field of applied entomology. Most of the damaging insect pests of agriculture and forestry are non-native (Sailer 1978, Aukema et al. 2010) and this is a problem being faced around the world. This problem did not arise overnight; instead, there has been a steady accumulation of non-native insect species in nearly every region of the world over the last two centuries. Yamanaka et al. (2015) reported that there are presently more than 3,000 non-native insect species established in North America, and most are plant-feeding species.

Given the enormity of the problem, and the fact that there has been a stream of these species establishing in the U.S. for well more than a century, it is useful to closely examine the history of how entomologists came to identify the problem of plant pest invasions and took action to stem the flow of species. Here, we examine the history of importation to the U.S. of live plants, which is well known as a common pathway by which invading plant pests are inadvertently transported to non-native habitats worldwide (Kiritani and Yamamura 2003, Roques 2009, Liebhold et al. 2012). We focus on the history of plant imports, how this practice was eventually recognized as a risky practice, and attempts made to stem the flow of invading species via its regulation. Because long time lags often exist between when invading species establish and when their damage occurs, the regulatory actions from even a century ago continue to profoundly affect damage currently caused by non-native plant pests (Epanchin-Niell and Liebhold 2015).

Read the full article in [American Entomologist](#) [1].

Associated Project:

[Globalization of the Live Plant Trade: Informing Efficient Strategies for Reducing Non-Native Pest Invasion Risk](#) [2]

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