

SECTION VI
Vectors of Plant Pathogens

ADVANCES IN GREEN PEACH APHID MANAGEMENT IN COLUMBIA POTATOES

C. Dobie and A.S. Schreiber
Agriculture Development Group, Inc.
2621 Ringold Road, Eltopia, WA 99330
509 266 4348
aschreib@centurytel.net

Green peach aphid is the most destructive insect pest of Pacific Northwest potatoes. In recent years, foliar management of this pest has changed from almost total reliance on methamidophos (Monitor) to a mixture of Monitor, thiamethoxam (Actara) and pymetrozine (Fulfill). This combination has provided significant opportunity to develop integrated pest management programs. These products have also allowed secondary pests, historically controlled by broad spectrum organophosphate insecticides, to flourish. These pests, including western flower thrips, cabbage looper, armyworm species and stinkbugs, have required additional applications of insecticides. The potato industry is in the midst of a flurry of new insecticide registrations, more so than in any time in the history of the potato industry. A number of products with aphid activity either have been or are in the process of being registered on potatoes.

These new insecticides have potential for great value to the industry, however in order to achieve their maximum potential and to retain this potential will require changes in grower and crop protection professionals behavior. For example, with in the next one to two calendar year, there will be 16 products registered on potatoes belonging to the neonicotinoid class of insecticides based on five active ingredients. These active ingredients are imidacloprid, thiamethoxam, acetamidiprid, dinotefuran and clothinadin.

Beleaf, an FMC insecticide, will be registered on potatoes in 2006. BAS 320 is expected to be registered in 2007. Other non aphicidal products have been registered on potatoes recently, including novaluron (Rimon) and indoxacarb (Avaunt). Three miticides are nearing registration on potatoes.

Significant research is needed to determine how to maximize the benefit these products have. Additionally, the specter of neonicotinoid resistance in Colorado potato beetle will have a tremendous impact on how potato insecticides are used.