

THE FIT FOR SEVERAL NEW INSECTICIDES IN POTATOES AND OTHER CROPS

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The potato insect market is sufficiently large to attract the marketing attention of agricultural chemical companies and we are in the midst of the most concentrated launch of new products into this market in recent memory. The following products are coming onto the potato market; spirotetramat (Movento, Bayer CropSciences, functionally 2012), cyazapyr (DuPont, 2013), sulfoxaflor (Transform, Dow AgroSciences, 2013), Sivanto (flupyradifuron, Bayer CropSciences, 2014) and tolfenpyrad (Torac, Nichino 2015). These products have interesting and unique characteristics including spectrum of control, efficacy, rapid knockdown, systemicity, and modes of action that are unlike any products the potato industry has ever experienced.

Despite the rapidity with which these products are entering the market, there is significant information that is not known. For example, spirotetramat has chemigation on its label but is not recommended for application via that use pattern despite being registered on potatoes for three years due to lack of data. The full spectrum of control for several of these products has yet to be established. Several products lack aerial and chemigation application data against any pests for which they are being targeted.

Large market crops such as potatoes (and corn, wheat, alfalfa, apples and so on) are gateway crops or also called Tier 1 or Tier 2 crops, meaning they are manufacturer objectives for registration. Once the efficacy, use pattern and spectrum of control has been somewhat elucidated for these crops, opportunities for smaller, minor or specialty crops become apparent and specialty crop researchers try to fulfill unmet pest control needs for these commodities.

There is even more data lacking for these products on specialty crops than for Tier 1 and 2 crops. Data on these insecticides on potatoes (as a Tier 1 crop) and also on specialty crops will be presented and discussed.