

Section II: Environmental Toxicology and Regulatory Issues

**POTATO IPM: LIFE AFTER MONITOR, TEMIK, FURDAN, DIAZINON,
DI-SYSTON, GUTHION AND ENDOSULFAN**

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Furadan, diaznon, Di-Syston, Guthion and endosulfan can no longer be used on potatoes. Monitor and Temik are being used on existing stocks provisions. The latter two products have long been the cornerstone of potato insect pest management programs in the Pacific Northwest. The former products were formerly important, but in the past decade were relegated to relatively minor, but occasionally important roles for insect control.

The losses of these products provide both a challenge and an opportunity for potato pest management service providers as well as potato growers. On one hand there are some pests for which we do not have clear alternatives to. For example, Monitor is the only insecticide recommended for thrips. More importantly, PNW potato growers face certain combinations of pest complexes that exist no other place in the world which require the use of these products. Probably more importantly, these products represent three classes of insecticides that can serve a critical role in resistance management.

Of particular concern is the wide spread use of the neonicotinoid class of insecticides. Increasingly, growers are using the class at planting time. Temik has served as the only planting time alternative to the neonicotinoid. With the loss of Temik, Monitor and the other products, growers who use neonicotinoids at planting, now have few options for control of aphids, thrips and other pesticides that are considered appropriate for IPM programs in potatoes. Many of the products that serve as alternatives to these products are more expensive.

Moving away from organophosphate, carbamate and organochlorine classes of insecticides provide growers with choices. The obvious choice is to increasingly rely on pyrethroid, neonicotinoid and package mix products. These products have broad spectra of control, are effective and generally low in costs.

However, there exists a cadre of other products with different modes of actions that while higher in cost initially, have the potential to advance more sophisticated IPM programs. Ideally, the selection of proper insect management choices can reduce or negate the long history of aphid and mite outbreaks in potatoes.

The loss of these products, while threatening and expensive for potatoes growers can provide an opportunity to force a long needed change in potato IPM programs that can ultimately reduce grower costs and improve crop protection.