Managing Colorado potato beetle insecticide resistance

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Colorado potato beetles are notorious for quickly becoming resistant to insecticides. Since the development of new insecticide active ingredients by agrochemical companies has slowed in recent years, many growers are nervous about the future of managing this pest. Most of Michigan’s potatoes are treated with an at-planting neonicotinoid, which has served growers well in most cases since the introduction of this insecticide class in the 1990s. To maintain its efficacy, it is paramount to practice good insecticide resistance management consisting of (1) rotation of insecticide classes, (2) year to year rotation of potato land and, (3) using maximum label rates. Insecticide classes can be rotated both within a season and across seasons where for example growers can switch to using an at-planting application of Verimark® in some fields in some years to challenge beetles with a new insecticide class. Verimark® is a relatively new insecticide on the market and field studies have shown that it can control Colorado potato beetles as well as or better than at-planting neonicotinoids when applied at the maximum label rate. To learn more about Colorado potato beetle insecticide resistance management follow the links below to some useful resources:

Field evaluations of registered and experimental insecticides for managing Colorado potato beetle on potatoes:

<http://msue.anr.msu.edu/news/colorado_potato_beetle_management_in_potatoes>

Colorado potato beetle insecticide resistance management general guidelines and resources: <http://msue.anr.msu.edu/news/colorado_potato_beetle_insecticide_resistance_management>

Managing Colorado potato beetle insecticide resistance: new tools and strategies for the

next decade of pest control in potato *by Huseth et al.* : <http://vegetable.ent.msu.edu/images/A1.full-2.pdf>

Handouts and articles written by Zsofia Szendrei:

http://vegetable.ent.msu.edu/extension/bulletins/potato/