INSECTICIDAL SEED TREATMENTS TO MANAGE WIREWORMS AND SPRINGTAILS IN SUGARBEET: A MULTI-YEAR ASSESSMENT

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North American sugarbeet producers often face the threat of economically damaging infestations of soil-inhabiting insect pests. Conventional at-plant granular and liquid insecticide formulations have been used to manage these pests for decades; however, recently labeled insecticidal seed treatments have been widely adopted by producers in the past few years. This research involved multiple field trials between 2004 and 2012 to compare insecticidal seed treatments with conventional insecticides for efficacy against natural infestations of wireworms (*Limonius* spp.) and subterranean springtails (*Onychiurus* spp.). Good control of wireworms was achieved by using the combination seed treatment Poncho Beta (clothianidin+betacyfluthrin, respectively applied at 60+8 g a.i./unit [100,000 seeds]), Cruiser 5FS seed treatment (thiamethoxam; 60 g a.i./unit), and a conventional granular soil insecticide, Counter (terbufos; applied at 1.5 lb a.i./ac). Insecticidal seed treatments (i.e., Nipsit Inside [clothianidin; 60 g a.i./unit], Cruiser, and Poncho Beta) also provided comparable levels of springtail control to those of Counter at low and moderate rates (0.9 to 1.5 lb a.i./ac). The seed treatments we evaluated are likely to provide similar levels of wireworm and subterranean springtail control to that of currently labeled conventional soil insecticides. In addition to increased applicator safety, an additional benefit of seed treatment technology is that adequate control of these pests can be achieved while allowing for major (up to 95%) reductions in the amount of insecticide active ingredient released into the environment at planting time.