Chemical Control/New Products

Management of CM and OFM on Apple with Insecticides, Water Volume and Method of Application

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Abstract: A large plot study was designed to evaluate three factors—different insecticides (Assail® [acetamiprid], Imidan® [phosmet], and Rimon® [novaluron]); two methods of applications—alternate row middle (ARM) and complete (both row middles) sprays; and two water volumes (50 and 100 gallons per acre [gpa]) for their efficacy to control both the oriental fruit moth (OFM), Grapholita molesta, and the codling moth (CM), Cydia pomonella. Three complete applications were made at ≈14-day intervals versus six ARM applications at ≈7-day intervals for each treatment during the period of mid-July until early September. Rimon (ARM/100 gpa) was the most effective treatment, followed by Imidan (ARM/100 gpa) and Assail (complete/50 gpa). There was no comparable complete/100 gpa treatment for Rimon. There was no difference in the percentage of apples with injury for method of application (ARM vs complete) when averaged across treatments, but there was a statistical difference for water volume (50 vs 100 gpa) with the higher volume treatments allowing 52% less frass injury for the 100 gpa treatments. In a series of separate efficacy studies, the insecticide E2Y-45 35WG was evaluated as a seasonal program for its efficacy against both CM and OFM. In all studies E2Y-45 was more effective than Guthion® in controlling this pest complex. There was no difference in efficacy of E2Y-45 when applied at 50, 100 and 200 gpa.