

An Investigation of Organic Pest Controls for the Colorado Potato Beetle, *Leptinotarsa decemlineata*, on Potatoes

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Public concern for genetically modified foods and pesticide use has prompted a rise of consumer interest in organic foods. Currently, organic agriculture is the fastest growing sector of the agriculture industry. The Colorado potato beetle, *Leptinotarsa decemlineata* (Say), poses a serious risk to potato growers and is difficult to control in both conventional and organic systems. Companion planting is a form of intercropping where two or more plants are established in close proximity so that one plant obtains some benefit from the presence of the other. Organic growers and home gardeners have recommended companion planting as a means of reducing pest attack. The use of botanicals (plant-derived insecticides) has also been encouraged as a more natural means of pest control.

The following research was initiated to assess the efficacy of organic pest controls for the Colorado potato beetle. Bush beans, flax, horseradish, marigold and tansy were tested as companion plants, in addition, plant-derived sprays were studied including Garlic Barrier AG[®], Hot Pepper Wax[™], Neemix 4.5[®] and Vapor Gard[®]. Novador[®] Biological Insecticide was also examined. Results suggest that the companion plants had no effect of CPB population levels and at times, the companion plants may have increased the CPB densities. The greatest control was obtained from plots treated with Novador[®] and Neemix 4.5[®].

Key Words: Colorado potato beetle, organic potatoes, companion planting, plant extracts

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