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Early-season bean leaf beetles rarely equal economic damage

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Abstract
Don't be surprised to see more bean leaf beetles this season than in typical years. Last year, a large bean leaf beetle population was present in most of Iowa. The mild winter apparently allowed at least 50 percent winter survival of overwintering beetles. This is in contrast to the 25 percent survival recorded last year. The bean leaf beetle completes two generations each year in Iowa. Adults overwinter and emerge in late April or May depending on the temperature. Adults have been reported in 1998 since the third week of April.

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[2] Some bean leaf beetles are red instead of yellow.

Bean leaf beetles look much like black-spotted yellow, brown, or brick red lady beetles. Unlike lady beetles, bean leaf beetles have a prominent black triangle at the front of the wing covers that points backward and most, but not all, have a series of rectangular spots on the wing covers. Adults occur in two color phases, red and yellow. Bean leaf beetles have the noticeable habit of abruptly dropping to the ground and scurrying into cracks and crevices when disturbed. Crop scouts need to approach infested plants carefully and watch for this behavior to estimate population size effectively.

Bean leaf beetles feed on a variety of legumes but immediately following emergence they are most commonly found on alfalfa. The beetles often move to soybeans within 3 days of soybean seedling emergence. This colonization of soybean is typical in Iowa, but because the overwintering bean leaf beetle population is usually low, beetles often are not obvious on young soybean plants. Bean leaf beetles feed on young, new tissue and can quickly cause noticeable defoliation on seedlings. But noticeable defoliation and economically significant defoliation are different. Early-season damage does not gain economic significance until cotyledons are lost and regrowth is suppressed by feeding activity.

Early 1998 indications are that the overwintering bean leaf beetle population is near typical mid-season levels (100 beetles per 50 sweeps in alfalfa). First- and second-generation bean leaf beetle populations will probably be larger in 1998 than last year's populations. However, this does not mean that early-season economic damage will result. Economic damage requires huge populations of feeding adults, and treatments are not often justified. The table shows the number of beetles per plant needed to justify insecticide treatment. Three or more beetles per plant rarely are documented but may be possible in local areas. Because of the high initial populations, late-season pod feeding may be a concern, but several environmental
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