



Tiny springtails can pose a big problem in beets

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In some seasons, globular springtails damage sugar beets emerging from the soil. Springtails are tiny soil insects that spring when disturbed. In beet fields we find a species that is greenish to purplish gray in color, and the size of the period at the end of this sentence. They are common in soil, and normally are beneficial, eating decaying plant material, fungi, or bacteria, breaking down residue, and improving soil structure. On newly emerging beets, springtail damage is rare, unless populations are very high (thousands per square foot). This happens most often in fields with moist soil and high residue, or in early-planted fields under cool, wet conditions. Fields that had damage last year are at greater risk for damage in this year. Springtails feed aboveground on foliage, damaging the cotyledons as they emerge, and leaving a scraped or scarred appearance on leaves. Sometimes they reduce stand in severe cases. There is no defined threshold for this pest in beets, but there is enough damage in some areas that fields are sprayed.

In other beet-growing regions, springtail populations are probably reduced by soil insecticides (such as Counter) used to control sugar beet root maggot. In Michigan, root maggot is not a pest, so we do not routinely use soil insecticides. There is little data on springtail control in crops using foliar sprays—as I said before, springtails are typically not a problem in field crops. However, foliar sprays seem to reduce springtail damage, although none of the foliar insecticides registered for sugar beets specifically list this pest on the label. However, insecticides registered on sugar beet to control other pests can be used against springtails—the site/crop is the legal issue, not the specific pest. These include the following product names (label rate):

Asana XL (5.8 to 9.6 oz/acre)**

Declare (0.5 to 0.75 pints/acre) **

Diazinon AG500 (0.75 to 1 pint/acre) **

Lannate 2.4LV (0.75 to 3 pints/acre)

Lannate 90SP (0.25 to 1 lb/acre)

Lorsban 4E (1.33 pints banded/acre) **

Mustang (2.4 to 4.3 oz/acre)

Although I do not have efficacy data from research plots, my sense is that all of these products probably reduce springtail feeding enough to get beets past the cotyledon stage. The difficult question I cannot answer is if the cost in money and time of spraying springtails actually translates into increased yield.

****A CAUTION IF TANK MIXING INSECTICIDE with MICRO-RATE HERBICIDES.**

Unacceptable crop injury may result from tank mixes of insecticides containing an oil base with micro-rate herbicide applications. The insecticides above with a star (**) are emulsifiable concentrates containing an oil base. Use caution when tank mixing these products with herbicides. The best option is to spray the insecticide separately.

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