Persistent herbicides in feedstocks and compost. (A05-bezdicek155346-Oral)

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Abstract:

Composts made from feed stocks treated with the herbicide clopyralid may persist through animal feeding and composting and injure legumes, tomatoes, potatoes and sunflower at levels of 10 parts per billion (ppb) or less. Clopyralid is the active ingredient in over 30 products used for control of annual and perennial weeds in crops and turf. Typical symptoms include leaf cupping, loss of apical dominance, failure of trifoliate leaves to develop, and prevention of fruit set. Clopyralid-contaminated compost from grass clippings and agriculture sources has been reported since 1999 in a number of US locations. Persistence studies of clopyralid have been conducted at WSU-Puyallup with grass clippings and at WSU Pullman with clopyralid-contaminated hay. At Pullman in a timothy hay-manure compost, average degradation rate of clopyralid was about 15% during 100 days of windrow composting, whereas the compost mass degraded about 35%, resulting in a slight increase in concentration of clopyralid. The Washington Department of Agriculture has prohibited the use of clopyralid-containing products on residential lawns, but allows their use on golf courses.

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