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Controlling Aphids on *Hemerocallis* with Soybean Oil

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Research evaluating if soybean oil sprays may control insects on daylilies (*Hemerocallis* 'Sammy Russell') was conducted at the greenhouses at the University of Tennessee's Agricultural Experiment Station. Greenhouse-grown 'Sammy Russell' daylilies infested with potato aphids (*Macrosiphum euphorbiae*, Thomas) were sprayed on 20 Feb. 1998 with 0, 0.5, 0.75, 1.0, or 2.0% soybean oil, or 2.0% 'SunSpray Ultra-Fine'. Aphid populations were evaluated from 26 Feb. to 1 Mar. 1998. Emulsions of 0.5 or 0.75% soybean oil resulted in >35% aphid mortality. Spraying 2% soybean oil subdued potato aphids by 62%. Both 1% soybean oil or 2% petroleum oil provided the best insect control on daylily foliage, reducing insect populations by >73%. It was evident that when the 1% or 2% oils contacted aphids, the insects were killed. However, aphids often resided within the tight whorls of leaves, and thereby avoided spray contact. Therefore, use of improved sprayers, such as a backpack mist blower may provide better spray penetration into the leaf whorls. No phytotoxicity occurred on any of the plants.