Laboratory method for capturing thrips emerging from soil samples using rearin containers with Tanglefoot-treated lids

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Materials and Methods

1992

160 soil samples (approx. 16 cu. in.) were collected with a bulb planter (dimensions) on IX/24/92 from Angelillo's sugarbush (town, VT). Samples were placed in plastic bags and held overnight in the back of the truck. On IX/25, samples were placed into waxed cardboard Dixie cups (10 cm top ⌀, 10 cm height, 8 cm bottom ⌀) and covered with sticky lids (a piece of plastic, 18 cm X 18 cm, on which Tanglefoot was applied). Plastic lids were placed on the cups to keep the sticky lid in place. Cups were then placed in plastic bags along with a wet paper towel (2 cups per bag). Cups were randomly assigned to 1 or 4 temperature groups: 25° or room temperature, 15°, 10°, 2°, and placed in the appropriate incubators. Lids were inspected 3 times a week, except those at 2°, which were inspected only 2 times per week. After 45 days, all cups were inspected only 2 times per week. When thrips were found on the sticky lid, the lid was removed and replaced with a fresh sticky lid. The sticky lid bearing the thrips was placed on a non-sticky sheet of plastic, and then inspected at 100X magnification to confirm thrips identity. Pear thrips (PT) identification was based on the number of antennal segments and/or the location of the apical claw on the foretarsus. On day 80, all cups were placed at 25° and inspected 3 times per week. On day 119 (120 days from collection date), all samples were placed in a freezer. Samples were then taken out and extracted with heptane by the method developed by Parker et al., 1992.

1993

This year samples (750 samples; 75 plots, 10/plot) were collected mid-October to mid-November, placed in plastic bags and held at 10-15°. Samples were placed at room temperature in December and thrips emergence monitored on sticky lids.