Scouting Apple Leaves for Spotted Tentiform Leafminer
(adapted from Cornell University’s 2000 Pest Management Recommendations for Commercial Tree Fruit)

Scout at pink or early bloom for eggs of the first generation of leafminer.
• A hand lens is useful for seeing the eggs, which are small, round, and translucent.
• Examine 3 fruit clusters from each of 5 trees (= 15 clusters).
• Count the number of eggs on the undersides of the 2nd, 3rd, and 4th leaves from base of cluster.
• If more than a threshold number of eggs per fruit cluster are detected at pink, then plan to use an insecticide at petal-fall to kill young (sap-feeding) leafminer larvae.
• If less than the threshold number of eggs is detected, then leafminer control will probably not be needed at petal-fall, but you can also scout for early mines at petal-fall to confirm the decision.
• General threshold: 8 or more eggs per fruit cluster (≥120 eggs per 15 clusters).
• Specific thresholds: see chart to the right for more precise sampling on 2 - 7 trees per block.

2. Scout at petal-fall for early mines of the first generation of leafminer.
• Note that early mines (with young larvae) are blister-like areas visible only on the underside of the leaf.
• Examine 3 fruit clusters from each of 5 trees (= 15 clusters).
• Count the number of early mines on the undersides of the 2nd, 3rd, and 4th leaves from base of cluster.
• If more than a threshold number of early mines per fruit cluster are detected, then use an insecticide for leafminer larvae at petal-fall.
• General threshold: 4 or more early mines per fruit cluster (≥60 mines per 15 clusters).
• Specific thresholds: see chart to the right for more precise sampling on 2 - 7 trees per block.

• Scouting should be done 690 degree-days, base 43F (about 25-30 days) after the number of leafminer moths begins to sharply increase in pheromone traps.
• Examine 4 mature terminal leaves per tree from 15 trees (= 60 leaves).
• Count the number of new mines on the undersides of these leaves.
• If more than a threshold number of new mines per fruit cluster are detected, then apply an insecticide effective against young (sap-feeding) leafminer larvae.
• General threshold: 1.6 or more new mines per leaf (≥96 new mines per 60 leaves).
• Specific thresholds: see first chart to the right for more precise sampling on 3 - 20 trees per block.
• Re-sample at 840 degree-days (base 43F) if treatment not needed after 1st sampling (see second chart to the right).

Celeste Welty, Ohio State University, January 1997, revised February 2001