

# MANAGE RESISTANCE *Now*

Protect your land, one field at a time

## CASE STUDY

### LISA JENEREAUX

Owner, Spurr Brothers Farms Ltd.  
Melvern Square, Nova Scotia



## Local knowledge, monitoring and early control are keys to success for Nova Scotia grower

Monitoring pests and early control are two proven strategies for Lisa Jenereaux when it comes to successfully managing insects and preventing development of resistance. Jenereaux runs a fifth-generation family farm in the Annapolis Valley of Nova Scotia, along with her dad, brothers and cousin. With a total of 1,000 crop acres, Spurr Brothers Farms grows apples, potatoes, onions, carrots, garlic and strawberries. They also run a small farm market. Each person focuses on a different aspect of the operation; for Jenereaux, it's the apple orchards.

While insecticide resistance is not a major issue on their farm or in the area, she has seen evidence of resistance to a miticide in the past. "It just wasn't controlling the mites the way it used to. So when some alternative insecticides came out, we just didn't go back to that particular miticide," says Jenereaux who is president of the International Fruit Tree Association. She is also very aware that effective insecticide modes of action are limited, so she is diligent about scouting and monitoring and, when possible, using non-insecticide control options before making the decision to apply insecticides.

Tapping into excellent local knowledge, rotating insecticide groups, and only applying them when needed are best management practices that Jenereaux uses to prevent resistance. When an insecticide spray is required, she ensures that the application will be effective by applying at the optimum time based on pest stage, weather and population levels, ensuring the sprayer is calibrated, and following label rates.

### Local support and guidance

As a member of Scotian Gold, a local apple co-operative, Jenereaux and the other growers meet weekly to talk about which pests are expected to be an issue and how they plan to manage them. She also uses the services of a private pest management specialist/entomologist for scouting and control recommendations.

Besides mites, other major insects that Jenereaux contends with are aphids, stinging bugs, codling moth and apple maggot. "At pre- and post-bloom, there is a lot of insect pressure and the potential for problems is quite high. Later in the season, once you hit the threshold for pests like codling moth and apple maggot, you know it's time to spray," she says.

Pre- and post-bloom are the busiest and one of the most critical times in season. Jenereaux counts on her trusted pest management specialist to scout during these periods and to advise whether an insecticide application

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is needed based on populations in relation to thresholds and prevalence in previous years. “Some insects like apple maggot are not forgiving, and when there has been a problem in the past and you have reached the threshold, it is best to spray an insecticide,” says Jenereaux.

She also consults *Orchard Outlook*, a local newsletter that gives threshold levels for local pests each week and how to monitor them.



Lisa Jenereaux oversees the apple orchards on her family's fifth generation farm.

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### **Know your population levels for successful early control**

Preventing or controlling a pest before it reaches its action threshold is a key strategy to ensure it doesn't become a serious problem. In order to do this effectively, monitoring is crucial. Jenereaux sprays oil during green tip to half-inch green growth early in the season to control mites and potentially avoid insecticide application. The oil suffocates the mite eggs, and allows Jenereaux to rely less on insecticides later in the season.

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the season without needing an insecticide. Plus, you don't have to reapply since it's a twist tie and stays on the tree.”

For all insects, catching them early is key. “If aphids can be found and controlled when they are at the stem mother stage, it mitigates damage and additional aphid generations later in the season. Groups 4, 4c and 9 are effective chemistries for when we do need to use an insecticide,” she says.

Jenereaux acknowledges that cost is a big issue for growers. “It costs a lot of money to protect your crop, but don't base your pest control decision on cost alone. The cost may be much higher if resistance develops and you lose those chemistries in the future.”

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