



DEVONIAN COAST WINERIES

Business case Vineyard at Devonian Coast Wineries

Location:	Nova Scotia, Canada
Application context:	Vineyard (<i>Food production</i>)
Problem definition:	Crop loss due to grape-eating birds
Pest bird species:	Starlings and robins
Time of the year of bird presence:	From September until the end of October 2016
Time of the day with bird problems:	From sunrise to sunset
Number of systems:	1 x Autonomic
Laser projection area:	14.8 acre (6 ha)
In use since:	End of September 2016
Bird numbers before Agrilaser Autonomic installation:	500-1000 starlings, 200 robins
Reduction in bird numbers after Agrilaser Autonomic installation:	90%
Yearly cost reduction as a result of using the Autonomic:	121,500 Canadian Dollars

Situation before

The vineyard has a broad variety of tools to deter birds, some more efficient than others. Without any bird repelling methods, the company would lose up to half its yield. They are therefore always on the lookout for new methods to prevent crop loss.

Situation after

With the installation of the Agrilaser Autonomic, Devonian Coast Wineries added a new tool to their bird deterrence toolbox. As a result, they experienced minimal loss of grapes last year on the six hectares covered by the laser.

“The Autonomic protects one of our most popular wines.”

Sven Von Kintzel, Vineyard Manager at Devonian Coast Wineries

Devonian Coast Wineries is located in Nova Scotia, Canada. The beautiful vineyard has 25 hectares of land on which thirteen different varieties of grapes are grown in 12 fields. The winery attracts a lot of wildlife since it is the only food source in the area. The vineyard’s management’s goal is to fully prevent the crop damage caused by birds, so when they identified an innovative way to disperse birds, they took decisive action.

Vineyard Manager Sven Von Kintzel advised, “We see starlings, pheasants, crows and seagulls; but we also get bigger animals such as bears, deer and raccoons on our terrain. Usually two out of five years we have a lot of bird pressure. It really depends on how harsh the winter was for them.” The winery uses many varied tools to repel grape-eating visitors. Mr. Von Kintzel stated, “We’ve got seven distress calls makers, three propane cannons, ten kites that look like hawks and eagles, eight windmills with black blades and flare pistols. It’s quite the toolbox, but birds get used to anything, so we are always on the lookout for new gadgets.”

“Once the birds have had a taste of the grapes they’re almost impossible to get rid of.”

Government funded

In 2015, the winery had a one-month trial with the Autonomic. Based on the positive results they realized, they applied for government funding. Von Kintzel advised, “The province funds innovative and new techniques that help local businesses, especially popular markets like the wine industry.” After receiving funding approval, they immediately ordered their own automated laser since “The province paying half made the decision even simpler.”

“The Autonomic realised 90% reduction in bird numbers.”

Sven Von Kintzel, Vineyard Manager at Devonian Coast Wineries

Protector of Marquette

The Agrilaser Autonomic was placed at a location designed to cover six hectares of fine Marquette, the grape Devonian Coast Wineries use to make one of their most popular red wines. In 2016 they had minimal grape loss on this field. However, due to the flora surrounding the vineyard, Von Kintzel can’t entirely depend on the laser. “I would never be able to stop using the other tools. Our fields are surrounded by trees and the laser can’t shine through them unfortunately.” Next year Von Kintzel wants to place the Autonomic on the roof of the barn so it covers even more area. That would mean the other tools at his disposal could be concentrated for use on the rest of the fields. Von Kintzel recommends other vineyards set up the Agrilaser solution as early in the season as possible, approximately mid-August, stating,

Calculating with grapes and bottles

In a normal year, Devonian Coast Wineries harvests approximately 150 tons of grapes. Mr. Von Kintzel characterized the benefits realized from the investment in terms every vineyard owner/manager can appreciate, “I often think that if you wouldn’t take measures, you’d probably lose 75 tons per season due to birds. A ton of grapes is worth 1800 Canadian Dollars. So a vineyard has to save around 5 tons to make the investment work within a year. In our case, we make wine and a lot of our wines sell for 20 dollars a bottle. So really all we have to do is save half a ton of grapes.”

Benefits for Devonian Coast Wineries

- Minimal crop loss in the area covered by the laser
- Important addition to existing bird control methods
- The return on investment from the Autonomic equals to half a ton of grapes the vineyard saves
- Easy to use