

Netting, Bird calls, Laser Scarecrow? Pros and Cons in our 4 fields

Robin, Catbird, Bluejay, starling, finches and
others....but mostly, ROBINS!

An aerial photograph of a large blueberry orchard. The orchard is divided into several sections. The foreground and middle ground show rows of blueberry bushes, some of which are covered with a green Smart Net system. A dirt road or path runs through the orchard. In the background, there are trees and a small building. The text on the right side of the image provides details about the orchard's history and current management practices.

Barden Family Orchard, North Scituate RI

- 1.5 acres blueberries
- 2019 and 7-8 years prior used Smart Net...not installed properly, not enough posts etc by 2019 it was no longer effective
- 2020 URI laser scarecrow research project
- 2021 Bird calls only
- 2022 Smart Net system as shown below



Harmony Farms, North Scituate, RI

- Purchased in 2017, including 4.5 acres of blueberries. Used older degraded netting for 3 seasons
- Used Laser Scarecrows only in 2020
- 2021 Used bird calls only (except Field 3 also used with Autonomic scarecrow)
- 2022 Used bird calls in all fields earlier in season. Used with URI laser in Field 1 for two weeks in July, and with Autonomic laser in Field 3. Field 2 had only bird calls for a second season.

NETTING

Pros Our opinion is that this is THE best way to exclude birds...

- Provides an exclusive barrier

Cons

- Expensive per acre,
- More Labor hours setting up and taking down each season and for maintenance...fixing holes et
- Netting must make contact with ground all around the base of the enclosure, and this must be continuous during the season.
- We have found that rabbits chew holes in the base of the netting and this must be repaired each season or even daily when the rabbit population is high. We have found that installing chicken wire along the edges where feasible prevents this type of damage.
- Must keep an opening if operating a pick your own operation, and several openings to spray the fields. These activities allow entry and they may remain in the field for the duration.

LASER SCARECROW

Pros

- Birds see laser photons as a physical object, and move as soon as the light approaches them. So, as we can confirm, lasers are effective.
- Lower overall cost depending on the type purchased URI lasers are more affordable than bird calls, Bird Control Group lasers are more expensive than bird calls
- Less time spent installing and removing each season, as opposed to netting.
- Random patterns keep the laser effective, as compared to bird calls.

Cons

- Must be checked often for functionality. If lasers do not work for any period of time, the field is not protected.
- Must install and maintain Laser warning signs. Neighbors/customers can be disturbed by the idea.
- Liability if there is an injury to a person's retina
- If operating a pick your own business, lasers must be turned off when open to the public. This give birds access to berries.

BIRD DISTRESS CALLS

- **Pros**

- Early in season, keeps birds away from field and may prevent some from ever entering field.
- Less expensive than netting, and some lasers
- More affordable than some lasers
- Least Labor intensive
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- **Cons**

- Least effective used as a single protective measure
- More expensive than some lasers
- Once birds find berries there is no way to prevent damage/loss as they quickly become accustomed to the calls
- Calls are rotated but are not randomized enough to increase effectiveness.
- Calls can be a noise nuisance to neighbors and customers
- If operating a pick your own business, calls must be turned down or off when open to the public. This conditions the birds to enter the field without consequence for many hours a day.

Our considerations

- If we were going to continue farming for another 20 years, and the bushes were younger, it would make sense to install Smart Net on the three fields at Harmony Farms. It makes sense for the younger farmers in the audience who might have purchased established but not older fields or are planting new fields to invest in this type of management, as soon as possible.
- For those with a shorter time span, and who are comfortable risking some loss, other options are feasible.
- Netting is the most effective prevention of damage
- In our situation, the Autonomic laser scarecrow from Bird Control Group was the most consistently used scarecrow and in combination with bird distress calls was the most effective, non-net alternative early in the season when installed two weeks before the first blue berries. Later in the season, the effectiveness was lower as the birds became conditioned to eating berries at times when the controls were turned down or off for pick your own customers.
- We will be exploring the use of the URI laser model this season, we know it has effectiveness based on the research project, and want to determine if we need multiple units to more fully control damage.