

Laser bird deterrent as a biosecurity measure at livestock farms

Manufacturers of the laser bird deterrent, Bird Control Group, began producing laser technology as bird strike prevention at airfields around six years ago. They continue to disperse wild birds with the laser bird deterrent for various applications, one being agricultural applications to reduce crop damage.

Wageningen University and Research trialed the laser deterrent system on a Dutch free-range poultry farm as a potential biosecurity measure to see if they could remove the threat of avian influenza contamination from wild birds. Wageningen University & Research provides education and generates knowledge in the domain of healthy food and living environment.



Bird deterrent shows promising results

Dr. Armin Elbers, the senior epidemiologist at Wageningen University and Research, is conducting a study that is looking at scaring wild ducks and other wild birds through a laser bird deterrent on a platform 6 meters above ground level. This laser is in use as a duck deterrent in a livestock farming application as a biosecurity measure.

Dr. Elbers spoke at the International Egg Commission (IEC) webinar and reported that the free-range area is protected by the laser bird deterrent between 5 pm and 10 am. The surrounding pasture up to 600 meters away is also using the laser system at the same time. The poultry farmer that deployed the laser as a biosecurity measure to protect his poultry, described the lack of geese as “stunning.”

The laser bird deterrent emits a green laser beam, which wild birds react to as a solid object, perceiving it as a threat and flying away. The green laser beam can range beyond 400 meters(1300 feet), scaring large flocks of birds away within seconds.

The preliminary results:

- There were no wild birds spotted during the day in the pastures when the laser was functioning.
- When the laser was in operation, the farmer noticed fewer Eurasian Wigeons and Mallards in the large waterway, which is located 250 meters away from the free-range barn.
- The grass in the surrounding pastures became more abundant due to the laser scaring away geese that would feed on the grass.
- Once the laser was no longer operating, the wild ducks quickly returned to the waterway.

Dr. Elbers saw a noticeable difference between the laser being on from dusk to dawn than when the laser was switched off. After the first night of deploying the laser, there were no mallards present the next day. However, once the laser was switched off, mallards visited every night.



Laser technology to prevent avian influenza

Eric Hubers, chairman of the Dutch Poultry Farmers Association, explained that Dutch farmers faced a regular epidemic of highly infectious bird flu, which was persistent due to the country's geography (lots of wetlands) and the extent of free-range production. They hope to rely on innovative technologies as biosecurity measures to reduce the risk of avian influenza and its consequences successfully.

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