

# KOALA FARMS



## Business Case Duck problem solved with bird deterrent laser at a vegetable farm

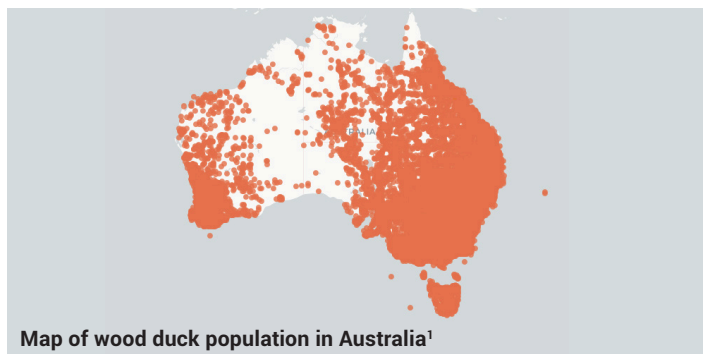
<b>Location:</b>	Queensland, Australia
<b>Application context:</b>	Vegetable farm ( <i>Agriculture</i> )
<b>Problem definition:</b>	Bird damage to lettuce and broccoli
<b>Bird species:</b>	Australian wood duck ( <i>Chenonetta jubata</i> )
<b>Bird behavior:</b>	Foraging
<b>Time of the year with bird problems:</b>	All year round
<b>Time of the day with bird problems:</b>	From dusk till dawn
<b>Number of systems:</b>	4 x AVIX Autonomic Mark II
<b>In use since:</b>	April 2019
<b>Laser projection area:</b>	Gatton location covers 162 hectares ( <i>400 acres</i> ) Cambooya location covers 324 hectares ( <i>800 acres</i> )
<b>Number of birds before installation:</b>	Several hundred
<b>Number of birds after installation:</b>	0
<b>Bird reduction after the laser deployment:</b>	100%
<b>Yearly cost of bird damage before laser deployment:</b>	AUD 50,000
<b>Yearly cost of bird damage after laser deployment:</b>	AUD 0

# Vegetable farm adopts environmentally friendly laser bird deterrent system to solve duck problem

Koala Farms was founded in 1990 by Anthony Staatz. He is the fifth generation in his family to become a farmer. After working hard on his family farm, he was able to plant his own crops and change his farming approach. After a successful lettuce harvest, he decided to begin investing in new agriculture technologies with the intention to grow the business. He knew this would improve the yields and he could produce high-quality products in a cost-efficient way.

## Duck migration affects vegetable crops

Koala Farms grows crops over 1500 acres across two locations with 80 employees. Their primary focus is on consistently supplying high-quality products to stores and wholesale outlets on the East Coast of Australia. To achieve this Koala Farms invests in innovative systems.



In previous years the Australian wood duck problem was a significant issue for Koala Farms. They currently face the same problem. The increase in duck migration in Queensland affected the crops due to the ducks eating the vegetables. Regardless of how much they eat, this puts the whole crop at risk of being contaminated, making it unsaleable. Ultimately, Koala Farms suffered a yield loss as a consequence of the duck problem.

They tried more traditional methods such as bird scaring, propane cannons and sound devices. However, nothing seemed to work because of the ducks' predictable nature. It made it challenging for Koala Farms to implement a method that was effective enough in deterring the ducks from eating the crops.

Anthony Staatz felt that it was imperative to investigate alternative ways to fight the ongoing duck problem. Anthony and his team looked at several options, with the priority being safety and a minimal impact on the environment.

They found the AVIX Autonomic Mark II through E.E Muir & Sons, an Australian partner of Bird Control Group, manufacturer of the laser bird repellents. E.E Muir & Sons is focused on providing superior services and products to increase their customers profitability while simultaneously protecting the environment.

## Innovative bird control method

Koala Farms had a yearly cost of AUD 50,000 from bird damage before they found the AVIX Autonomic Mark II. The laser bird deterrent device projects a green laser beam across a field of crops. The birds perceive the green laser as a threat and fly away from it immediately. The innovative technology allows the laser bird deterrent system to scan over fields with different patterns. A grower can program a pattern to scan over the areas where birds land, allowing the laser to accommodate different locations. Koala Farms found that this system met their expectations and in 2019 they purchased four laser bird deterrent systems, to cover two of their locations. The farm in Gatton, has two Mark II lasers, which covers 400 acres and the farm in Cambooya uses two systems, which covers 800 acres.

## Cost-effective solution to keep ducks away

Koala Farms was 100% successful in reducing the duck population on their farms and as a result of using the AVIX Autonomic Mark II. They were also successful in decreasing their yearly cost of bird damage from AUD 50,000 to AUD 0. The laser bird deterrent system proved to be a cost-efficient solution for the organization, gaining a noticeable return on their one-time investment. Koala Farms stated that: "The laser bird repellent is an environmentally friendly, and humane alternative to dealing with the duck problem. It has great functionality, with the accessibility to program the green laser beam to move across the crops in a pattern that suits our specific locations".



"It saved us time, knowing we can sleep at night without waking up to acres of the product destroyed by the wood ducks."

Anthony Staatz, Owner of Koala Farms

1. <https://bie.ala.org.au/species/urn:lsid:biodiversity.org.au:afd.taxon:16992949-c87a-4b5a-a94a-342be097bf27>