



## Business case Orchard Eggs - Organic poultry farm

<b>Location:</b>	East Sussex, United Kingdom
<b>Application context:</b>	Poultry farm ( <i>Food production &gt; Animal farm</i> )
<b>Problem definition:</b>	Risk of bird flu exposure ( <i>Avian influenza</i> )
<b>Pest bird species:</b>	Pigeons ( <i>Columbidae</i> ) , Crows ( <i>Corvidae</i> ), Pheasants ( <i>Phasianinae</i> )
<b>Time of year bird presence:</b>	January - April
<b>Time of day bird presence:</b>	From dusk till dawn
<b>No. of birds before installation:</b>	50
<b>No. of birds after installation:</b>	2
<b>Birds reduction after the Autonomic has been installed:</b>	96%
<b>Laser projection area:</b>	12 ha
<b>In use since:</b>	January 2017
<b>No. of systems:</b>	1 x Autonomic 100
<b>Bird behavior:</b>	Foraging
<b>Consequences:</b>	- Exposure to bird flu - Sanitation and personal safety issues - Regulatory issues due to lack of biosecurity measures
<b>Yearly probability of bird nuisance happening without Autonomic:</b>	(between 0-100%) - 100%
<b>Yearly probability of bird nuisance happening with Autonomic:</b>	(between 0-100%) - 4%

### Situation before:

Invasive wild birds presented a risk of bird flu exposure to Orchard Eggs chickens and staff, and also caused the farm to incur additional costs to maintain proper sanitation. The farm's owners considered setting up nets around the farm to prevent contact with wild birds; however, that solution was deemed infeasible because of the farm's large size.

### Situation after:

Thanks to the Autonomic, Orchard Eggs achieved a 96% reduction in wild bird presence. The potential risk of exposure to the bird flu and cleaning costs were greatly reduced, and sanitation and personal safety were improved.



## Biosecurity measure against avian flu

Orchard Eggs is a family-run farm in Forest Row, East Sussex with small flocks of chickens roaming freely in an orchard setting. The farm faced a serious problem when the presence of wild birds put their chickens and staff at risk for exposure to bird flu. Bird flu is such a serious concern in the U.K. that farmers are required by regulation to either implement biosecurity measures such as netting of all outdoor areas in which chickens are active or keep all chickens indoors. Neither option was workable for Orchard Eggs – at 60 acres, their farm is too large to net, and their biodynamic agricultural methods require their flocks to roam freely 24/7. An innovative solution had to be found.

### Benefits for Orchard Eggs

- Reduced invasive wild bird presence with 96%
- Protected flocks against avian flu
- Enhanced hygiene
- Implemented biosecurity measures

Orchard Eggs owner Daniel Hoerberichts discovered a potential solution in a newspaper article about the lasers for bird deterrence of Bird Control Group. The article stated claims of 70 to 100% bird reduction after installing the Autonomic, and Daniel soon contacted the company to learn more about its products. Within a few weeks, Daniel decided to lease the Autonomic to see if the claims made in the article were true. Orchard Eggs used the Autonomic from January to April 2016 to prevent its chickens and staff from being exposed to avian influenza and enhance hygiene on the farm.

### To be or not to be

Daniel was skeptical at first - he noticed a reduction in the number of birds on the farm, but he was not fully convinced that the change in bird activity was directly related to the Autonomic. He removed the system from the farm as a test. After a month, all the birds returned, which led Daniel and his colleagues to conclude with certainty, "the system actually did its work!"

### 96% fewer birds and better hygiene

The Autonomic helped the farm reduce daily invasive wild bird numbers from 50 to 2. Orchard Eggs can feel confident that bird flu is no longer a threat. The hygiene was improved due to the reduction in bird droppings; bird nuisance was reduced and personal safety issues were resolved due to the lower risk for employees to catch bird flu. Daniel is satisfied with the results: "The system is quite effective. We all are happy with the way it works." His colleagues even joked that, "At night the laser is quite fancy to watch as well."

### Helping the neighbors

Daniel was so convinced of the Autonomic's effectiveness that he even helped neighbors get rid of their unwelcome wild birds! After Orchard Eggs projected the Autonomic on an adjacent farm, their neighbor also became convinced that it worked and began obtaining their own unit.

**"The Autonomic helped us to protect our chickens from avian flu spread by invasive wild birds. We are very happy with the system!"**

**Daniel Hoerberichts:** Owner