

# CASE STUDY SUMMARY

**Client** : Chicken farm  
**Location** : Chile  
**Problem** : Flies and ammonia odours  
**Product** : BFL Odour Clean/Ecotech Z

## BACKGROUND

The chicken houses have large numbers of chickens in cages where they are fed, watered, lay eggs and excrete. Over time the chicken manure builds up until it is removed once per year. The chicken manure contributes to odour generation in the chicken houses and the odours attract flies. The flies lay eggs in the chicken manure, the larvae hatch, develop into flies and the cycle continues. The main odour problem is ammonia which causes problems for the chickens as they become stressed. When stressed they are more prone to disease, have poor feed conversion ratios (FCR) and higher mortality. The fly larvae also produce ammonia and this contributes to the problem. The chicken houses have a floor area of 200m<sup>2</sup>.



## OBJECTIVE

- ❖ To control odours and reduce ammonia concentration in the air.
- ❖ To reduce the number of flies and prevent egg laying.
- ❖ To provide a healthier environment for the chickens.

## TREATMENT PROGRAMME

Two adjacent chicken houses were chosen for the trial. One was treated using BFL Odour Clean/Ecotech Z and the other was an untreated control. Prior to starting the treatment a number of fly traps were installed in each chicken house. After a week the traps were checked and the results indicated that the number of flies in each chicken house was similar. The BFL

Odour Clean/Ecotech Z was diluted 1:10 in water and applied by spraying on the chicken manure as evenly as possible. The application rate was 1 litre per 20m<sup>2</sup>. This dose was repeated after 1 week. After the second dose it was obvious that there was a big reduction in the number of larvae in the chicken manure. The odour of ammonia was considerably reduced as well. The repellent effect of the Ecotech Z meant that the flies were not laying more eggs on the chicken manure. However it was observed that the flies were now accumulating on the walls and roof. In order to address this problem the walls and roof were sprayed using a 1:10 dilution of BFL Odour Clean/Ecotech Z. In this case 10 litres of the diluted product was applied taking care to apply the product evenly on all surfaces.

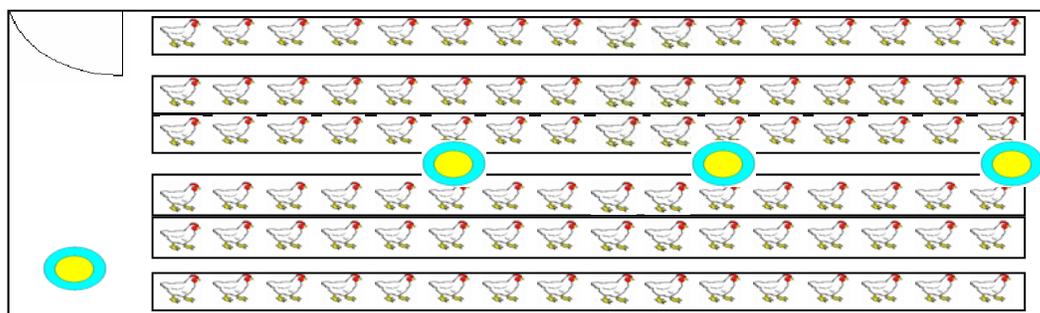


Fig. 1. Location of fly traps in chicken houses.

## **RESULTS**

After 4 weeks there was a large reduction in eggs and larvae in the chicken manure, the odours were significantly reduced and the number of flies in the traps were very significantly reduced compared to the control. No adverse effects on the chickens were noticed and in fact the chickens appeared healthier in the treated chicken house.

The results of the trial show that the combination of a natural microbial product for odour control (BFL Odour Clean) and a natural insecticide (Ecotech Z) are very effective in controlling odours, reducing ammonia levels in the atmosphere and eliminating flies in chicken houses. This two stage approach works by reducing odours which is what attracts the flies in the first place, eliminating the fly eggs and larvae, repelling the flies so they don't lay more eggs and then eliminating the flies on the walls and roof.