



**The Installation:** Animal drinking water on a modern industrial scale Duck Farm.



**The Problem:** The large scale Duck Farm was producing over one million ducks per year mainly for export to the Chinese market.

Whilst many of the Ducks were grown on in modern farm buildings with waste water and excrement disposal facilities a substantial number of the ducks were free range. They had full access to the open air in fenced compounds.

It was noted that some of the ducks were developing diarrhea and consequently the growth rates were not as desired.

The farm was being supplied water from its own well and after testing it was found to be contaminated with E.coli and a small amount of fecal coliforms. The contamination was believed to be caused by rainwater runoff contaminating the well. In addition it was noted that the levels of iron in the water were quite high.

**The Solution:** A T25 40 liter per hour generator was installed producing into a buffer tank and installed in one of the outbuildings close to the well.



A flow meter was installed in the main water line and connected to a dosing pump. The pump was set to dose at the rate of one liter neuthox to one thousand liters animal drinking water. Tests were taken at the out lets of the animals drinking system to ensure there was a residual amount of FAC.

In addition new filters were installed to remove the oxidized iron that would be formed as result of the addition of the disinfectant.

**The Results:** Within a few days it was noted that the incidence of diarrhea had reduced dramatically. This will result in increased feed to weight conversion. The levels of iron in the water that the birds were consuming was reduced as well due to the powerful oxidizing effect of the disinfectant.

**Running costs:** Total running costs are estimated at under 2 Euros per day inclusive of salt and electrical power.

### **The Benefits:**

- **Safety**
  - no need to mix or dilute hazardous chemicals
  - environmental friendly solution
- **Efficiency**
  - elimination of biofilms and inactivation of pathogenic microorganisms including Legionella species, and nil or low bacteria counts
  - creates a longer-lasting residual than traditional chlorination, often at a lower dosage
  - right dosage, no more no less – corrosion is reduced
- **Cost reducing**
  - the system is fully automatic and only requires minimal operator attention
  - no need for transport, handling or storage of chlorine gas or hypochlorite- creates a longer-lasting residual than traditional chlorination, often at a lower dosage
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