



## Case Study Agrodrodukt Rt, a pig farm in Hungary

The Company raised 15,000 pigs annually in one of their pig farms. The farm is located close to a village. The inhabitants of the village were always complaining of bad odor coming from the direction of the pig farm. Prior to our demonstration the company spent significant amount of capital for installation of a modern wastewater treatment system, and they still were not happy with the strong malodor level from the lagoons---holding tanks of wastewater.

Kosh Daphtary from Chemtech International Inc., and representatives from Chemtech's Distributor in Budapest worked jointly to design and monitor a simple dosing system for Histosol Bio5.

See the attached wastewater flow schematic.

The system collected animal waste from a dozen sheds and then flowed into a collection tank. From the collection tank solid parts were separated with a screen and remaining wastewater was led to a lagoon for aeration. From the first lagoon the water was led to the next lagoon with an overflow system. Finally the wastewater was directed to a big lagoon, 20,000 cubic meter capacity. Water from the big lagoon was used for watering the nearby agriculture fields. This system was not enough to eliminate the odor from the wastewater treatment facility.

### **Solution:**

At the beginning we started to inject 50-PPM Histosol Bio5 in the separator tank and also 50 PPM in the first lagoon after the solid parts separation. The flow rate was 150 m<sup>3</sup> per day. Within 4 weeks we reduced the dosage rate gradually to 10 PPM. After 4 weeks treatment the odor was significantly reduced around the lagoons and separator.

Later on we change the concept. In order to simplify the method and to start controlling the odor in the sheds itself, we started to inject the Histosol Bio5 into the water reservoirs of the sheds instead of injected it in the separator and in the lagoon. Due to the fact that the animal waste quantity was lower in the sheds, it was more concentrated. We started to dose 200-PPM Histosol Bio5 compared to the quantity of animal waste. Within a week we reduced the dosing rate down to 50 PPM. Malodor in the sheds was reduced, especially ammonia odor. At the same time odor around the lagoon and separator remained at an acceptable level. One should note that the odor simple control system we designed was able to reduce ammonia and hydrogen sulfide odors in air, but it did not reduce the typical odor associated with pigs.

**Results:**

Complaints from people in the nearby village reduced significantly. The owner of the pig farm was satisfied with our approach to SOLVE odor problem with Histosol Bio5, and was happy with the technical support services rendered by Chemtech International Inc. and its Distributor. Chemtech's Distributor hopes to get a contract for odor control from the owner of this pig farm for the year 2003.