



ESMS – MANURE DIGESTER AND ODOUR CONTROL

----- Original Message -----

From: Shana
To: info@earthsmart
Sent: Wednesday, March 16, 2009 5:35 PM
Subject: ESMS

I thought I ought to tell you how pleased I am with ESMS. I run a horse boarding stable with between 45 and 50 head. Needless to say, we have manure. We are also surrounded by large expensive homes and a Wal-mart across the street. Since I have been using this product, the odour from my place is under control. When we clean the corrals out, it can get very unpleasant, but when I spray each load with ESMS it stops the odour in seconds. The compost piles work much faster and stay hot, our fly problems are much easier to keep under control. Thanks for saving my business.

Shauna H.
Lindon, Ut

(Original document on file at Earthsmart)

Over the past 15 months we have been able to reduce the amount of ESMS used for odour control in our hog barn. When we started using ESMS we were spraying the barn daily. We are now spraying every 5 to 7 days, depending on the number of sows in the barn. This eliminates the odour and rids the barn of flies.

ESMS is also working well in reducing bacteria. Before using ESMS we had to treat the navels of the newborn pigs with antiseptic to help ward off infections caused by bacteria on the floor etc. A short while after we began spraying the barn with ESMS we stopped using antiseptic. Although the number of animals is steadily increasing, we are not experiencing naval infections.

Lisa Ell
Ell Hog Farm
Craigmile, Alberta

(Original document on file at Earthsmart)

ESMS was very effective in removing foul odour being emitted during dumping, spreading, levelling and compacting of the solid wastes at the dumpsite. The control of flies and other insects was effectively obtained using ESMS. Furthermore, it has been observed that the decomposition of the biodegradable components of the solid wastes is very significant.

Cesar G, Ramirez
Executive Director
Office of the Mayor
Task Force Operation Clean and Green

(Original document on file at Earthsmart)

Murphy Farms – Greenville NC

This facility is a hog finishing operation made up of 6 hog houses and a 4 acre lagoon. The total hog population on this site is around 7,440 at any given time.

All 6 hog houses flush into the lagoon by way of flush gully ditches. The water used for flushing purposes is top skimmed from the lagoon and pumped back into tanks located at the end of each hog house. The tanks automatically flush every 6 hours flushing approximately 22,000 gallons of lagoon water together with the liquid and solid waste from 7,440 hogs (approximately 60 cubic yards) into the lagoon every 24 hours.

Over a three year period odour emissions from this facility resulted in rising tension between citizens and operators of the facility. Over this same period numerous complaints had been filed with state and local authorities.

In early August, 2008 Earthsmart evaluated the problems. The objective was to demonstrate the effectiveness of ESMS – Manure Odour Control in eliminating or significantly reducing odour emissions. Treatment commenced on August 14, 2008. The hog houses were sprayed with ESMS solution (at a rate of 1:200) applied at a rate of 1 litre of stock solution per 40 square feet. The result, no detectable odours and no flies present in the hog houses. In addition the animals appeared to be less stressed.

The surface of the lagoon was blanket sprayed with ESMS solution (at a rate of 1:100) the result, no detectable odours.

(Original document on file at Earthsmart)

I visited the Chuck Stokes Lower Field site on Aug. 16th at all six houses and lagoon. There was no odor present at this visit. I walked around the entire site to make this observation.

On Aug. 17th my son, Thomas Forrest, and I revisited the site and there was still no odor from the site.

My property is approximately four thousand feet from this site. I have a bicentennial farm that dates from 1797 and am 76 years old, and have been plagued with odor for approximately three years.

It was my understanding that the Chuck Stokes Lower Field site had been treated with ESOC for odor on Aug. 14, 1999.

Roy T. Forrest
Ayden, NC

(Original document on file at Earthsmart)

Government of Alberta – Royal Tyrrell Museum

Odour emissions from this system had resulted in complaints from the neighbouring community for a substantial period of time. In an effort to resolve the problem, several treatment methods had been incorporated into the system but none provided a result.

In June of 2008, Earthsmart evaluated the problems and treatment began in July 2008, ESMS was injected up-stream from the first lift station at a rate of 3 PPM. Odour was eliminated in three days and system functionality was restored within two weeks. In August, 2008, the injection rate was reduced to 2 PPM and is currently maintained at that level. The system is continually monitored and as of March 1, 2009, no odour had been detected and no complaints had been recorded.

(Original document on file at Earthsmart)

THIS IS TO CERTIFY that ESMS has been used at the City's open dumpsite for about five (3) years and has greatly help the department to maintain the dumping area, a sanitized and no-foul odour area. ESMS has been very effective in the decomposition of bio-degradable garbage and the removal of foul-odour being emitted during levelling and compacting of the dumpsite.

ANTONIO V. GALURA
City of Cavite
General Services Department

(Original document on file at Earthsmart)

It's been 6 months since I last saw you. My small fertilizer plant has been in operation for over four months now. By using ESMS we were able to reduce the offensive odour to a level satisfactory to our neighbours as well as the city sanitary inspector. This solved our problem of reprimands and complaints.

Another benefit is the production of fertilizer that we use in our orchard. I am sending a kilo of sample with this letter. We are currently producing one ton per day.

One observation with hog manure is that it takes more than 30 days to attain the texture of chicken manure. As you know, I also make fertilizer from chicken manure.

This is all for now. I hope to hear from you. Best Regards.

Sincerely yours
HOSPICIO S. TIMBOL, D.V.M, FPCSP

(Original document on file at Earthsmart)

Thank you for the sample of ESMS which you provided us for testing at our cattle operation. Our company has been in business for 6 years, managing about 300-400 cows imported from Australia. We utilize 3 big sewerage tanks for the management of solid waste to control the foul odour and storage of effluents. Our present system of sanitation is by:

Washing down of previous day's effluents with a pressure washer

Spreading saw dust in the pen area.

We have found significant difference between ESMS and our conventional method of control. Some of the definite advantages we have observed are: its capability to control foul smells of manure, the apparent safety of the applicator of the product being organic which is non-toxic to animals and humans, and its being more economical to use.

In due time we shall be endorsing your product to the Cattleman's Cooperative as well as to the Cattle Feedlot Assn. For their separate evaluation and concurrence in using your product in their waste management activities.

Once again, thank you for the sample that you provided.

Very truly yours,
Josel Escano
Manager
Escano Development Corp

(Original document on file at Earthsmart)

Thank you for the sample of the ESMS which you provided us for testing at our poultry farm.

When we first started with only 1,000 head population in 1982, we were not bothered of chicken dung odour and presence of flies. But when we increased chick's population to 22,500 heads in 1994 we encountered a lot of environmental problems. The most serious problem that we have experienced was when our neighbouring community started complaining of the foul odour and flies after harvest. Their complaints reached to the sanitary health office we were advised to remedy the situation, otherwise our business permit will not be renewed. Upon presenting our problem with one of our friends at the DENR office, he advised us to use snips granules which was very effective in killing flies, but the foul odour of the chicken dung still persist.

For several months we continued raising broiler chicks with persisting problems of foul odour and presence of ants, ticks & mites all around the poultry surroundings.

When you introduced to me the anti-pollutant product, ESMS we tried applying it in our farm I & farm II. A week of continuous application in our four (4) poultry houses we have noticed great changes. The presence of flies, ants & mites were greatly minimized and the foul odour of the chicken dung is no longer annoying.

Thank you very much for the sample that you have provided us. This would ultimately solve our environmental problem and most especially our problem with our neighbouring community who have been complaining of foul odour and presence of flies after harvest.

Truly Yours
Dionisio R Ababat
Ababat Poultry Farm

(Original document on file at Earthsmart)

SUBJECT: CONTINUED USE OF ESOC TO TREAT GARBAGE AT THE METRO MANILA SOUTH TRANSFER STATION.

During the last six months of this year, we have witnessed a marked change on the effects of the chemicals we apply to garbage brought to the Transfer Station. During this period we have used ESMS C exclusively to treat foul odour and other harmful effects of garbage.

The results have been remarkable. Soon after the application of ESMS, foul odour is neutralized without the pungent odour usually associated with the other chemicals. It takes anywhere from two (2) to the (10) minutes after application, depending on the quality of garbage, before ESMS goes to work. Thereafter, no reapplication is necessary. Unlike the other chemicals which are dissipated gradually after application, ESMS has long-lasting and continuous effects.

Further, the residual foul odour usually left behind at the garbage facilities are better neutralized by ESMS. Flies and other insects are also better-controlled. Overall, the ESMS system seems to be getting better as the days go by.

For this reason, we believe in the continued use of ESMS for our garbage treatment needs at the South Transfer Station.

For you information and consideration:

MEDARDO G. MACARAIG
Asst. Operations Manager
Metropolitan Manila Authority
Metro manila South Transfer Station

(Original document on file at Earthsmart)

UN body finds Manila landfill among best

A TEAM from a United Nations body has just wound up its inspection of sanitary landfills in five developing countries in Asia, including the Philippines, finding these being operated in Manila the best among the block. Environment Undersecretary Ben Malayang III yesterday told reporters that this was disclosed to him by members of the five man team from the Economic and Social Cooperation for Asia-Pacific (Escap), now in the country.

The team has recently visited Thailand, Sri Lanka, Malaysia and Brunei to evaluate the sanitary landfills being operated there. "(But) they (Escap team) found the San Mateo and Carmona landfills the best in terms of quality in their operations," Malayang said. "The landfills were the best they have seen so far." For one thing, he said, the Escap team noted the absence of foul odour in the two sanitary landfills located in Cavite* and Rizal.* Malayang stressed that the Escap team was now preparing a report of its findings.

The two sanitary landfills now take in most of the garbage generated in Metro Manila every day, as the government moves to close down the operations of Payatas dumpsite in Quezon City by next month. Indeed, President Ramos last month gave the go-signal to expand San Mateo and Carmona landfill sites by five hectares each.

Malayang said that the Department of Environment and Natural Resources has already recommended to the Presidential Task Force on Solid Waste Management that it come up with a presidential proclamation excluding 100 hectares of land from the Narikina Watershed reservation to be used for the expansion of the San Mateo landfill. Actually, he said only 50 hectares will be used to expand San Mateo landfill since the other half will be distributed to farmers participating in a DENR project in the watershed who will be displaced by this move.

Malayang assured that the expanded areas, found in the southwest part of the watershed, is a flat area and "does contribute to the function of the watershed. The expansion of the two sanitary landfills was among the measures to be taken up by the government in the next two years to solve the garbage crisis in the metropolis.

The Landfills referred to in this document are treated with ESMS odour control

(Original document on file at Earthsmart)

Thank you for the samples of ESMS which you provided us for testing and evaluation at our Transfer Station. We conducted trials using ESMS from July 18, 2007 to July 31, 2007 and are pleased to advise that we have found significant differences between your product and those we are using and/or have used in the past.

As you will please find from the comparative tables attached, the tests indicate the suitability of your product for use in waste management activities. Aside from having the qualities/ attributes which have made us consider using the disinfectants we are now applying, some of the definite advantages we have observed are: its capability to control the foul smell of garbage with persistency and without the need for re-application; the tolerability of the product and/or apparent safety of the applicator' using the product; and its being more economical to use.

In due course, we shall be endorsing your product to the Department of Environment and Natural Resources for their separate evaluation and concurrence to our using your product in our Waste Management activities.

Thank you for your kind assistance and support.

Very truly yours,
R.U. Uianza
Director III - Public Service Affairs

(Original document on file at Earthsmart)

Thank you for providing me with samples of ESMS for use in our hog barn.

Over a one week time period and after three applications of ESMS the barn is free of hog manure odour. Prior to using ESMS the ammonia inside the barn made it difficult to breathe and it was necessary to wear a mask when working in the barn even with the doors open. ESMS has changed all that and we can now carry on our work in a relatively clean environment.

There is no doubt that we will continue to use ESMS.

Lisa Ell
Ell Hog Farm
Craigmile, Alberta

(Original document on file at Earthsmart)
