

SURVEY OF ILLINOIS COMMERCIAL MANURE HAULERS AND APPLICATORS

Have you ever wondered how much other producers are paying to have their manure hauled and land applied? Have you ever considered how far manure is hauled before it is land applied? In an effort to discover the average cost producers are paying to haul and land apply manure in Illinois, a survey was conducted of the custom manure haulers and applicators listed on the “Illinois Commercial Manure Haulers and Applicators” web site. The address of this web site is: http://web.extension.uiuc.edu/clmt/haulers_list.cfm

Currently the LUW Team is separating the solid and liquid portions of liquid swine manure and land applying the separated effluent (liquid portion) at a cost of 1.0 – 1.1¢:gallon. In order to compare the cost for separation and land application to the traditional injection method for unprocessed slurry the LUW Team needed to know the average costs for injecting slurry.

The survey was conducted during December 2007 and January 2008, therefore, as the cost of a barrel of oil has continued to rise so may have the custom application rates increased since the survey was conducted. Thirty-eight custom operators were listed on the web site. Of the 38, three had retired or were no longer custom applying manure. Of the remaining 35 operators, 19 responded to the one page, 14 question survey for a response rate of 54.3%. Fifteen or 78.9% of the respondents were full time custom operators and manure hauling/applying was just one aspect of a multi-service business for 63.2% of the operators. Of the operators, 89.5% provided multiple services i.e. pit or lagoon agitation, pumping, hauling and land application. Only 10.5% limited their service to just land application, or to just hauling and application. About one half of the operators provided services on a year around basis while the other one half offered their services seasonally (spring, summer and fall, or spring and fall, but not winter).

The following table references the types of manure the operators handled.

<u>Manure Type</u>	<u>Percent of Operators</u>
Swine	94.7
Poultry	15.8
Beef	47.4
Dairy	57.9
Other	10.5

The volume of manure applied per year ranged from four million gallons to 380 million gallons. The average per operator was 60.1 million gallons:year. One operator, also, handled solid manure and this amounted to 30,000 tons per year. The average amount of liquid manure land applied per day of operation was 728,235 gallons and ranged from a high of 2 million gallon:24

hours to a low of 175,000 gallons:day. The mean volume land applied per customer was 5.4 million gallons:year and ranged from 25 million gallons down to 500,000 gallons. The average number of customers per custom operator was 26 producers.

The following table outlines the method of land application used by the custom operators.

<u>Method of Application</u>	<u>Percent of Operators</u>
Box Spreader	21.0
Injection	78.9
Drag Line	63.2
Slurry Tank	36.8
Surface Application	31.6
Other	5.3

The average cost per gallon to land apply unprocessed slurry was 2.0¢:gallon and ranged from 0.6¢:gallon to 15.0¢ per gallon depending primarily on the total volume land applied and other services offered. The mean cost for land application only was 1.7¢:gallon if the volume applied was between one and four million gallons. If the volume applied was greater than four million gallons the average cost was 0.9¢:gallon. These average costs included land application only for 78.9% of the custom operators. If hauling manure from the storage site to the application site was required these operators charged an additional fee. Nearly 40% of the operators did not charge an additional hauling fee if the site of land application was within .5 to 3.0 miles (1.25 miles was the average) of the manure storage site. All custom operators charged a hauling fee if the slurry was hauled more than 3.0 miles to a land application site. Approximately 26% of the custom operators charged an hourly rate for the truck(s) used to haul manure while 63.1% charged a fee based on cost:gallon hauled. One operator charged according to tons of manure hauled. The average cost per gallon hauled was 1.8¢:gallon and ranged from 0.8¢:gallon to 1.5¢:gallon hauled. Those custom operators who charged by hour of truck use had an average cost of \$67:hour of truck use (ranging from \$45:hour to \$100:hour). The cost for hauling by the one operator who charged by the ton hauled was \$7:ton.

The average cost to separate raw slurry into its solid and liquid fractions including land application of separated effluent via center pivot irrigation for 2006 and 2007 was 1.0¢:gallon of raw slurry processed. The cost to separate and land apply by irrigation is expected to increase for 2008 but should still be comparable in price to traditional land application by injection. Costs for separation and land application in 2008 will be available in the fall. For more information check out the LUW Team web site: www.sweeta.illinois.edu