

# COST EFFECTIVE SOLUTIONS FOR HANDLING MANURE FROM CATTLE



Manure is a valuable resource that should be taken care of.



Solid manure stored on a concrete plate.



Deep straw bedding with manure is taken away from the cow house in spring and stored on the field.



A vertical muck spreader spreading solid manure

## MANURE IS A VALUABLE RESOURCE

A meat cow produce about 4m<sup>3</sup> of solid manure and about 2 m<sup>3</sup> of urine and manure water when kept indoors for 6 months. The slurry contains 3 kg of P and 15 kg of total-N per cow per winter season. This is a valuable resource of nutrients on a farm.

By taking care of the farm manure, nutrients are kept on the farm and reused in the production instead of leaching out into water ways and eventually out into the Baltic Sea.

When the manure is applied in a correct way on fields the yield of hay or silage can increase from 2 tons/ha up to 6 tons/ha or even more. The content of the humus in the soil is increased which in its turn increases the water holding capacity and keeps the nutrients in the soil.

Apart from reducing the nutrient load from the farm the farm economy is increased when higher yields of fodder are produced.

## SOLID MANURE

Solid manure should be stored on a concrete plate and urine led into a well. The solid manure is possible to spread on fields with growing grass with a vertical muck spreader. The hay or silage can then be harvested the same year.

4m<sup>3</sup> solid manure per cow and 2 m<sup>3</sup> urine and manure water per cow is produced during a winter season.

Deep straw bedding can be taken out from the cow house in spring and be stored

on the field before spreading it with a muck spreader later in the season.

In the bedding there is about 10 kg of total-N per cow.

Solid manure has to be tilled into the upper part of the soil after spreading.

## SPREADING MANURE

The amount of manure that needs to be spread on a field depends on what kind of soil the field has and what kind of vegetation is growing on the field.

## GOOD MANURE HANDLING RESULTS IN:

- Less nutrients into streams, rivers and the Baltic Sea.
- Less need to use chemical fertilizers
- Higher yields from fields per hectare
- Better economy for the farmer



Construction of a lagoon with a liner of non permeable polyethylene.



Manure and urine from eating area are scraped to a lagoon and is mixed to a slurry.



A tank for spreading the slurry.

### MANURE SLURRY

If the cattle's feeding area is made of concrete and located in the open air the manure is mixed with rainwater. This slurry of manure, urine and rainwater is scraped to a lagoon and is mixed. The slurry makes it possible to pump the manure into a tank for spreading on the fields. Slurry can be spread on growing fields with a tank.

The slurry contains 3 kg of P and 15 kg of total-N from each cow. For a number of 125 cows a 500 m<sup>3</sup> lagoon is needed. For this size of a lagoon a liner the size of about 440 m<sup>2</sup> is needed. The liner is made of non permeable polyethylene.

### READ MORE

[www.greppa.nu](http://www.greppa.nu)

[www.balticdeal.eu](http://www.balticdeal.eu)

### CONTACT

Upplandsstiftelsen, Sweden  
 Box 26074, 750 26 Uppsala  
 +46-(0)18-611 62 71  
 info@upplandsstiftelsen.se  
 www.upplandsstiftelsen.se