



## Why Separate ? Advantages of Separation

1. Enlarged raw slurry storage facilities may not be required to deal with herd expansion or NVZ spreading restrictions.
2. Separation has been proven to reduce storage requirements by between 20% and 30%.
3. Separated liquid will store for long periods with no crusting or sediment so lagoons can be used, with unseparated slurry agitation is essential before spreading takes place and takes a lot of time and power.
4. Separated liquid is free flowing and does not contaminate grass as it leaves the leaf quickly.
5. By separating, better results from grass production are summarised as follows.
  - No contamination of silage
  - No capping of fields so grass grows soon
  - A more uniform spread from separated liquid as opposed to slurry
  - Grass response to nitrogen in separated slurry is more rapid and more reliable. Tests show greater yields are obtained. (The fibre in raw slurry locks in nitrogen).
  - Raw slurry lays on the surface and nitrogen is lost
  - Fertiliser can be easily added to separated slurry to balance up and reduce the number of separating operations.
6. Separated liquid can be spread with low rate equipment at a very low cost of operation. Raw slurry uses huge horsepower to do the same job.
7. Slurry contains weed seeds which are killed off when solids are left to compost, therefore reducing the cost of weed treatment and increasing the time between reseeds.
8. Separated liquid can be spread little and often as the crop needs it, whereas with an umbilical system it is more practical to store and then spread large amounts. This may cause problems if rain follows the application, whereas separated liquid goes into the ground faster and does not suffer these problems.
9. Separated liquid will pump long distances in 50mm pipes using low horsepower's, so electric pumps can be used which can be automated.
10. Blockages are never a problem with a separator so the choice of bedding used can be greater. Straw, Sand or Sawdust can be used and removed by the Separator.
11. The spreading of raw slurry over a period of years particularly on grassland results in the accumulation of almost impermeable fibrous material on the soil top which causes worm kill. With Using separated liquid although worms come to the surface, a large proportion of them will recover within 24 hrs and return.
12. Liquid and solids can be stored remote from livestock buildings and water courses



13. Separated liquid smells only about half as much as raw slurry especially after long storage, and as the liquid enters the ground faster, less smell is apparent in the field.
14. Slurry dries out in pipes when left causing blockages on start up, separated liquid does not cause these problems.
15. Separated liquid can be further treated to reduce BOD and COD (if it is not required as a fertiliser) by using a low cost aeration process.
16. Separated liquid can be applied to crops at a much later stage than raw slurry to give better pay back. Separated liquid is commonly used on corn upto 12" high, and can be applied using tramline system.
17. Clovers are encouraged by separated liquid, but killed by raw slurry.
18. Management time is reduced to a minimum with separation – most material can pass through the Separator, less attention has to be paid to keep bedding out of the slurry pit.
19. Storage volume is increased by 25% on cattle slurry by separation.
20. Umbilical spreading is only a method of slurry disposal, separation however is enhancement of fertiliser value and cost minimalisation
21. With pressure from the Regulatory Authority on the environment (especially in a Nitrate Vulnerable Zone (NVZ), separation is the most practical and cost effective step towards slurry management.
22. Separated liquid particularly after aeration is suitable for use in flushing and washing down systems. Thus the overall volume of liquid is greatly reduced.