



**MINERALIZATION RATES FOR ORGANIC NUTRIENT SOURCES
(10/09 update)**

| Manure Sources and Types | % of Organic Nitrogen Mineralized Each Year | | |
|---|---|----------------------------|--|
| | Year of Application | 1st Year After Application | 2 nd Year After Application |
| cattle (dairy & beef) (buffalo*) | 35 | 18 | 9 |
| poultry | | | |
| a. caged layers | 60 | 10 | 5 |
| b. all other (emus*) | 50 | 15 | 8 |
| swine (all types) | 50 | 15 | 8 |
| horse (ostriches*) | 20 | 10 | 5 |
| sheep (goat, alpaca, camel, llama, yak*) | 30 | 15 | 5 |
| chinchilla* | 15 | 7 | 3 |
| rabbit ¹ | 5 | 2 | 1 |
| vegetable processing effluent ¹ | 40 | 15 | 8 |
| meat processing residuals ¹ | 50 | 10 | 5 |
| aquaculture waste (semi-solid) ¹ | 50 | 15 | 8 |
| aquaculture effluent ¹ | 80 | 5 | 0 |
| fish emulsion ¹ | 80 | 5 | 0 |
| corn gluten, alfalfa meal, peanut meal ¹ | 85 | 10 | 5 |
| compost (if C/N<25) ¹ | 5 | 0 | 0 |
| feather meal and crab meal ¹ | 60 | 10 | 5 |
| fish powder, hydrolyzed ¹ | 60 | 10 | 5 |
| seabird gauno ¹ | 60 | 10 | 5 |
| blood meal ¹ | 65 | 10 | 5 |

* Based on consultation with animal nutritionists, species in parenthesis are similar in diet and digestive system to the animal about which mineralization data are available.

¹ Data based on values from the literature or values considered best estimates by specialists with expertise in the area.