

From the foregoing, the subjoined data have been calculated, showing the losses of fertilizing constituents that ensue under the different systems of preservation.

LOSS OF FERTILIZING CONSTITUENTS IN THE ROTTING OF MANURE.

FERTILIZING CONSTITUENTS.	At the end of 3 months.		At the end of 6 months.		At the end of 9 months.		At the end of 12 months.	
	Protected.	Exposed.	Protected.	Exposed.	Protected.	Exposed.	Protected.	Exposed.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Loss of organic matter	55	60	58	65	60	67	60	69
Loss of nitrogen	17	29	19	30	23	40	23	40
Loss of phosphoric acid	None.	8	None.	12	None.	16	4	16
Loss of potash	None.	22	3	29	3	31	3	36

The most important conclusions from the above are, (1) that the chief losses take place chiefly during the first three months of rotting, (2) that about 10 per cent more organic matter is destroyed in "exposed" than in "protected" manure, (3) that nearly twice as much nitrogen escapes from the "exposed" than from the "protected" manure, (4) that while the phosphoric acid and potash remain practically constant throughout in the protected manure, the losses of these elements, especially of the potash, are very considerable from the exposed manure.

As an offset against these losses, fermentation has broken down or decomposed the litter, has converted the nitrogenous matter into substances that more readily form humus in the soil, has increased somewhat the availability of the phosphoric acid and in all probability has destroyed the greater number of the weed seeds that might be present.