Composting of nitrogen-rich wastes, such as site-sorted organic household wastes, can be associated with substantial gases loss mostly through ammonia volatilization. This leads not only to the loss of an essential plant nutrient but also a potential cause of environmental pollution. Therefore, we investigated nitrogen dynamic in the intermittently fed compost of household waste mixtures under different carbonaceous bulking agents at feed rate of 1.5 kg day. The four bulking agents were sawdust from *Tectona grandis* Linn.f. (teak), *Dipterocarpus alatus* Roxb. (rubber wood) and *Melaleuca leucadendra* Linn.var.(paper bark), and coconut husk. Besides total nitrogen, samples were analyzed also for nitrogen in the form of $\text{NH}_4^+$ and $\text{NO}_3^-$. pH was another important parameters being monitored throughout. The result suggested that the pH changes and nitrate formation during composting were associated with type of bulking agent. In addition the use of carbonaceous bulking agents for balancing the C:N ratio and intermittent feed strategy instead of batch composting process could help reducing N losses during composting.