

Chicken Manure Compost Deodorization

Spring, 1999 – Little Hanaford Farms; Centralia, Washington

The following trial was conducted at a private chicken manure composting operation in Centralia, Washington. The purpose of the trial was to determine if BAT 506 and or BAT 505 could deodorize composting wastes (predominantly composed of chicken manure, chicken blood and daf, wood chips, and gypsum).

Procedure: Approximately 200 tonnes of chicken manure was mixed with 400 tonnes of wood wastes and gypsum. BAT 506 was mixed into the windrow in the initial formation period at a dosage of 65 millilitres of concentrate and 1.8 litres of water per tonne of compost mix. At the same time, existing windrows were topically sprayed with BAT 505. The topical application of 505 noticeably improved the odour of the existing rows within minutes. The newly formed windrow was moved by loader into a covered area and re-formed into a pile, which was left undisturbed for 28 days. Four to five days after the incorporation of BAT 506 in the test pile, odours had been reduced such that additional incoming materials at the facility began to receive treatment during mixing.

Results: Laboratory tests are currently being conducted to determine nitrogen content, sulphate content, ammonia nitrogen content, and other levels. Site personnel are convinced that overall odours have been reduced a minimum of 85%. Additionally, the odour of the final product has been significantly sweetened and reduced.

As a side benefit, site personnel felt that decomposition was more thorough. (This was corroborated by reduced moisture levels in the treated product and by the fact that treated product was ready for screening between 30 and 40 days instead of 45 to 90 days on untreated product.)

Conclusion: **BAT 506** was extremely effective at controlling odours in the composting wastes. BAT 506 has been added as a regular ingredient in Little Hanaford's mixture, and has now been in use there for 28 months.