Waste Minimization of Poultry Feed Processing through Cleaner Production

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Cleaner Production (CP) need for a company to succeed in reducing cost, increase productivity, and minimize pollution and production waste. Cost of production can reduce through minimizing of waste in terms of material and energy. In the source of identification, waste and emission sources within the premises were identified. Employees involved in different sections were interviewed and waste process steps were identified. Process flow diagram was constructed as perquisite for source inventory. Each of the operation unit was studied carefully for identification of waste generation. Finally CP options were suggested to improve work practices and proper maintenance. CP options optimize existing processes.. High moisture losses recorded in rice polish (new crop) during storage (1.30 %) in ware souse storage. Due to different types of packing material approximately 11500 kg of waste were recorded. In the machinery operation trace line waste was high (16374.99 kg, 46.54 %). Losses were occurred even though product filling is automated. Filling of Broiler starter of 50 kg bags shows 0.04 % variance and filling of acco layer grower of 25 kg bags shows 0.045 `)/0 variance among the samples. By applying the cleaner production concepts to the poultry feed manufacturing process additional benefit can be gain through sale of waste packing material to recycler and also minimize the labour cost for waste management. Through CP can minimize waste generation due to raw material spoilage and moisture losses during silo storage through aeration process. Increase labour efficiency, dumping rate, maintain the storage condition of ware houses were the other achieved advantages of CP concept.

Key words: Poultry feed, Cleaner production, Material balance, Moisture losses