

Poultry Manure odor Composting

INTRODUCTION

Poultry manure is rich in nitrogen (N), phosphorus, potassium and other nutrients required for crop growth, and, in particular, contains high N content, accounting for about 3.8% of the dry matter of manure. . Improper treatment of poultry manure can not only lead to loss of nutrients, but can also cause serious impact on human health and the surrounding environment.

Composting is one of the methods to treat poultry manure. When compared with other treatment methods, composting can reduce the amount of waste by 40%-50% . In particular, aerobic composting is a universal, economical, effective and socially acceptable method, which can transform organic waste into soil pollution remediation materials, soil amendments or high-quality fertilizer through bacterial degradation . Owing to the high N content in poultry manure, a large amount of foul-smelling ammonia (NH_3) is produced during the composting process, along with other malodorous compounds, such as hydrogen sulfide (H_2S) and total volatile organic compounds (TVOCs). With the increasingly strict environmental protection regulations and better environmental awareness among surrounding residents, odor emission and its impact on the environment have become an important aspect affecting the survival of composting plants



Solution

Valens Company is a pioneer in the field of treating **Odor Compost**. In implementing its solutions, it relies on advanced, promising, fast, and well-established technology. It does not limit itself to mask odor but it completely eliminates it from its source. It builds in its solutions on emphasizing data, the human mind, the modernity of the machine, and alternatives to materials, and through the integration of processes, magnificent results and brilliant outputs are achieved

Important data before treatment

- Major issues of concern (e.g. Ammonia, odor, pathogens) and when in the production cycle do these occur?
- Size of sheds/barns
- Is litter/bedding ever cleaned out? If so, how often?
- Is the litter/bedding windrowed between flocks?
- What (if any) amendments are used to control Ammonia?
- What are the major pathogens of concern?
- What is the average litter moisture?
- Type of compost produced (substrate) and what volumes
- Mechanism of aeration e.g. Turned piles, aerated static piles, tunnel etc
- Size of windrows/piles
- Processing time

Benefits

- Rapid reduction in VOC's and
- Accelerate composting time
- Avoids problems of odor release upon turning
- Greenhouse gas emissions reduction in methane and nitrous oxides and from operations
- Potential to improve throughput volume and reduce energy and labour costs

Contact

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