OVERVIEW

The Challenge

- Abundance of poultry litter on the market
- Risk of over fertilizing and producing run off
- Need to dispose of excess poultry litter in an earth-friendly and safe way

The Solution

- Compacting poultry litter for use in Pellet Boilers

The Results

- Compact product without the use of binders
- Reduce labor and material expense
- Energy efficient, affordable and renewable source of energy

Business Overview:

A premier energy conservation company helps building owners invest in energy efficient building renovations, systems and equipment. This East Coast company works with businesses to reduce operating expenses, increase property value, and take advantage of tax incentives and rebates through a variety of different energy initiatives.

The Challenge:

The East Coast is home to an abundance of poultry farms making them a primary target for energy conservation programs. These poultry farms produce a large amount of poultry litter, the fecal waste and additional materials that make up the bedding of a poultry house.

Standard practice has always been to sell or use the poultry litter for fertilizer, however, as these farms have increased in size, many chicken farms now create more waste than what can be converted to fertilizer. As a result, farmers are looking for new and alternative ways to dispose of poultry litter in both safe, profitable and earth friendly ways.

A growing number of poultry operations have been experimenting with the use of poultry litter as a bio fuel. This process comes with many of its own challenges. Primarily, the biggest concern is getting the poultry litter into a manageable shape and size profile to use as fuel. Another issue is preparing the material in such a way that it won’t cause a flare-up in a boiler, as it does in its natural state.

The Solution:

The energy customer, on behalf of their many poultry clients, contacted Mr. Tony Lopez, Prater’s Northeast Regional Manager, for a solution to this growing concern. After analyzing the process, it became obvious that compaction of the poultry litter for use as a bio fuel was the best solution.
Through material testing on a Prater Compactor, it was discovered that plugs could be made from the poultry litter without any additional binders or water being added, which would simplify the processing of the poultry litter. The Compactor also provided a versatile and energy efficient way to closely regulate final product characteristics through its control of feed rate, pressure and roll speed. This allowed them to accommodate a variety of compaction sizes for a variety of boilers.

The Result:

Prater’s compaction capabilities improved flow, solubility, dust control and waste by-product recovery. As a result of using the Prater Compactor, the energy customer found a profitable outcome in the form of an alternative, affordable and renewable energy source as well as providing a solution to many local businesses. The pellet sized final product is capable of being burned in as small as a pellet boiler, providing extreme flexibility in end use. Additionally beneficial was reduction of material and labor expenses associated with turning poultry litter into fertilizer.

Bio:

Tony Lopez is the Northeast Regional Sales Manager for Prater. Tony has worked for the company since 2006. His technical discipline comes from over 25 years of processing and manufacturing in various managerial roles.

At Prater, results come first. Prater has been providing reliable particle management solutions since 1925. The company specializes in an extensive line of equipment and engineered systems including rotary airlocks, lump breakers, hammermills, fine grinders, classifier mills, screeners/separators, air classifiers, compactors, plant-wide automation/controls as well as toll processing services.

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