**Background**

The Morgan Composting had successfully overcome the technical, environmental, and structural challenges of operating a composting business, Morgan Composting faced additional concerns from state and local governments. Brad often visited Lansing, the state capitol of Michigan, to appear before various state environmental agencies. Brad was very proud of the fact that Morgan Composting was the only composting organization in the nation operating without a governmental subsidy.

Fifteen years after starting his firm, 94% of Morgan Composting business consisted of selling *Dairy Doo* to farmers in Michigan and surrounding states. Ironically, some of Brad’s most loyal customers were the same farmers who previously would not pay to have his manure shipped to them. Now they happily bought his product and paid for the shipping too.

Brad faced a critical decision that could expand his company further but was potentially risky. Recently, Morgan Composting had been in talks with a respected company that produced the high quality American-made fertilizer, *Nature Safe*. While *Dairy Doo*, a soil amendment, contained many of the important nutrients that crops needed, it did not offer the complete range of nutrients that a good fertilizer incorporated. Fertilizers would be a good addition to Morgan Composting’s current product mix.

Brad had two alternatives. The first alternative was: Should Morgan Composting mix *Nature Safe* with *Dairy Doo*, package it into 40 pound bags, and market it to home gardeners as *Healthy Gardens,* creating Morgan Composting’s own new, Michigan-made,brand of fertilizer? The second alternative was: Should Morgan Composting buy the fertilizer and market it for resale under its well-known brand name, *Nature Safe?*  *Nature Safe* came in larger 50 pound bags that would last a traditional home gardener for several seasons and was also available through other outlets in the state (Morgan Composting would be a non-exclusive dealer).

**Recommendations**

Critically evaluating the available options, following are the recommendations for *Dairy Doo:*

1. Morgan Composting mix Nature Safe with Dairy Doo, package it into 40 pound bags, and market it to home gardeners as Healthy Gardens, creating Morgan Composting’s own new, Michigan-made, brand of fertilizer.

This can be a feasible option because even though they will not be exclusive retailers of the compost mix, yet they have their own reputation in market as well. Combination of their reputation with *Nature Safe* will provide them with better chance of doing good business and having a more stable reputation in future.

Opting for *Nature Safe* only option can create issues for them in terms of reputation and quality being offered. Therefore, they must opt for the mixing option.

**Rationale**

There is a huge range in amount that is talked about for an assortment of purposes. Suggestions for the field rely upon the planned reason, the harvest, soil type and different factors.

Nutrient Additions. Suspicions about manure commitment to nitrogen accessibility are generally founded on the grouping of all out nitrogen which may go from 0.5 to 3.5% with a normal more like 1 to 1.5%. Usually accepted that 10% of the complete would be accessible every year. Along these lines, for a 10 ton/section of land application, the nitrogen commitment may associate with 15 lbs for each section of land every year. With applications every year, the organic issue commitment will increment. Comparable suppositions can be made for phosphorous (extend 0.1 to 4% avg ~1% for dairy manure) and potassium (run 0.3 to 2.5%, avg ~1.0% for dairy fertilizer).

Soil Biology. For lower rates of use like 1-2 ton/section of land, since the organic issue and nutrient options are moderately little for a first time application, it is commonly accepted that the commitment of extra microorganisms and commitments to the dirt ntheishment web that can build root wellbeing are at any rate mostly in charge of expanded soil and plant wellbeing and yield that are watched.

What does it cost to buy and apply fertilizer? There is the expense of the material, cost of the transportation, and cost of the application. A few presumptions are required – a cubic yard of manure at 30-half dampness is accepted to weigh between 700-1400 lbs or around 1000 lbs overall. (Excrement or dairy based manure and increasingly matured fertilizer will have higher mass thickness.) Therefore two cubic yards are around one ton. At $30 dollars per cubic yard or $50 per ton, the range in expense per section of land can be from $50 to $500 for 1 to 10 ton/section of land. What might be the arrival per section of land? This relies upon the gathered estimation of the harvest which could begin at a low of $200 per section of land. At the MSU Student Organic Farm they are averaging over $20,000 per section of land of produce deals through a multi week CSA and an on grounds ranch stand.

For the hoophouses company apply one cubic foot of manure per 20 square feet which is equal to around 40 ton for each section of land. The efficiency there is at any rate $5 per sq foot or $200,000 per section of land of developing region. The dirt additionally stays unfrozen and underway all year so organic movement is higher than for field generation.

Different components to consider incorporate the transportation cost and the application cost. Transportation cost per yard likely goes down as the extent of the heap goes to a certain degree.