



Beautifulizing American lawns and golf courses naturally since 1926

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Dear Monroe:

As your fondness for Milwaukee is well documented, I thought you might appreciate some good news coming from our fair city. The EPA has published a set of rules designated 40 CFR Part 503 as part of the Reauthorization of the Clean Water Act. This rule regulates the disposal of sludge generated from Publically Owned Treatment Works, or POTW's, such as the Milwaukee Metropolitan Sewerage District. These rules have a profound effect on products such as Milorganite.

In the 1970's, the United States Environmental Protection Agency was charged with the responsibility of regulating the disposal of sewage sludge. The common perception at that time, and perhaps rightfully so, was that this toxic, nasty stuff (for lack of a more descriptive term) was being dumped into oceans, rivers, and potable drinking waters. Disposal was largely unregulated, unmanaged, and clearly responsible for a number of serious pollution problems across the country. At the time, EPA had no idea that sludge had any beneficial use, especially as a popular fertilizer for over 50 years.

Fifteen years of scientific research ensued to determine just how nasty this stuff really was and how disposal methods would impact the environment. Every possible scenario was studied from plant toxicity, wildlife, and human health perspectives using a Most Exposed Individual (MEI) risk assessment. The extensive data was gathered and reviewed by a group of qualified scientists from across the country, including the United States Department of Agriculture. The final regulation is over 600 pages long including the Preamble, and according to the document, required unprecedented effort by the EPA to complete. The bottom line here is that finally, after extensive scientific research, there is a clear cut and definitive line which determines that **Milorganite is safe.**

That definitive line and one of the key components in the 503 Regulations was the establishment of what has been termed "Exceptional Quality" sludge. (The politically correct term now for sludge is Biosolids.) "EQ" Biosolids must meet three key criteria.

1. They must demonstrate that they meet processes to remove pathogens. Milorganite is heat-dried to temperatures

exceeding 850° Fahrenheit for over 40 minutes. This process ensures that not even *Cryptosporidium* will survive in Milorganite, let alone disease-causing bacteria or viruses.

2. The products must be in such a form, or used in such a way that they do not attract vectors (such as flies or rodents) which may carry other diseases. Since the manufacturing process of Milorganite yields a final product of less than 5% moisture, this criteria is met.

3. Finally, "EQ" Biosolids must not exceed concentration levels of 10 heavy metals. The regulated metals include cadmium, chromium, arsenic, lead, molybdenum, copper, zinc, selenium, nickel, and mercury. These levels were developed to protect both human health as well as ensure that plant toxicity from high concentrations would be avoided even if the products were grossly over-applied or otherwise misused. It is important to understand that Milorganite and other products derived from Biosolids are the only fertilizer materials which currently must meet heavy metal concentration levels, demonstrate a reduction in pathogens, and ensure that it will not attract and promote outside pathogen vectors. Most fertilizer products clearly could also meet these standards. Interestingly, however, many would not.

As you know, Milorganite has taken its licks over the years and has been criticized based on hearsay and conjecture, not fact. Now, fifteen years of science defines criteria, which no other product has to satisfy, **that maintains that Milorganite does not carry pathogens; that maintains Milorganite does not promote the spread of pathogens; and that maintains that the metal concentration in Milorganite does not pose a reasonable threat to plant, animal or human life.**

Too often our industry is criticized by those who ignore good science and base conclusions on emotion rather than scientific fact. Likewise, emotion rather than scientific fact was and continues to be employed from many sources against Milorganite. With the promulgation of 40 CFR Part 503 by the EPA, the opportunity to embrace science rather than emotion is available. I hope this serves as encouragement to practice what we preach.

Alan K. Nees
Director of Marketing

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