

COMPOSTING MATTERS

by Paul van der Werf

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The Future of Composting

I first became aware of composting as a child through reading organic gardening magazines my parents subscribed to for a time in the 1970s. By the time I was ready to start my career, composting was on the move. Although large-scale composting had been tried in the past, it wasn't until the early 1990s that it started to become a real and viable option for the management of organic wastes.

Although the economics have been challenging, it has become the "go-to" process to keep organic wastes out of landfill, and for capturing the economic value by turning this waste into something. Some 15 years later the industry has developed to a point where it is real and viable.

Other processing options

The wastes that we deal with have achieved another level of value: the energy embodied in them (in these times of petro-uncertainty). Options that a few years ago were all but dismissed are suddenly at the forefront and are starting to compete for the same feedstocks.

We now hear about anaerobic digestion and the burning of biomass much more frequently and in the context of green energy. In the composting industry we convert the energy of the composting process to heat which helps reduce pathogens and foster aggressive microbial action; however, others have found a way to capture and convert this energy into usable and conventional forms.

While scientists and sociologists scurry around trying to solve the world's problems through carbon taxes and somehow absolving our actions through carbon off-sets (rather than real change), the competing waste processes are gaining traction and beginning to seriously compete for feedstocks previously composted. These competing processes have merit and if managed properly will have the opportunity to broaden the scope of our energy supply.

The composting industry needs to embrace and understand that these other processes ultimately manage organic wastes and keep them out of landfill.

Key issues

To maintain its market share of organic waste management in future, the composting industry needs to run a tight ship. Key considerations include:

◆ **Odour Management:** Unmanaged odour kills composting facilities. The industry has not moved itself forward aggressively enough in this regard. Off-site odour impacts stem from poor management, which can be a function of: receiving too much waste; not pre-processing or processing wastes in a timely fashion; not understanding or appreciating the impact of climatic conditions; and, undersized or poorly constructed odour abatement systems.

There are scant few operators that have not, at some point, faced the

issue of off-site odours impacting the neighbourhoods surrounding their facility. In many cases these issues have been resolved, but in enough cases facilities have been shut down or scaled back. The composting industry needs to tackle the management of odour head-on as a key priority. This should include the development of facility siting guidelines and technology guidelines. Solving this problem will play a large part in determining the fate of the composting industry.

◆ **Facility Management:** Composting infrastructure needs to be operated like other similar infrastructure including wastewater treatment plants and landfills. It needs to be understood by all that off-site impacts are not acceptable.

The Composting Council of Canada's nascent facility operator certification program is a good step forward in increasing the professionalism in the composting industry. The people that run composting facilities are keen and understand the benefits of what they are doing. Giving them the tools to better understand and articulate this process will serve them well. It would be wise for all Canada's environment ministries to require some level of operator certification and include it as a condition in any Certificate of Approval or similar approvals document.

◆ **Compost Quality:** Compost is a product that needs to be sold. Mountains of compost remaining unsold due to contamination and poor quality obviate the reason we got into this business. Not striving for and producing the highest possible quality product impairs composting's business model.

A good product is one that the consumer will pick off from the shelf with confidence and use again and again. The Compost Quality Alliance (CQA) allows compost facility operators to clearly understand their compost's quality and where it can best be used. The pairing of compost quality and utilization should result the development of many positive consumer experiences and, ultimately, repeat business.

The continued development of this process is critical to allow consumers to enjoy compost's benefits and to differentiate it from other less regulated products in the marketplace.

Even in these changing times the composting industry has the potential to maintain and grow its spot in the marketplace. However, not moving forward aggressively to tackle key issues, particularly odour management, may result in some future erosion of this industry. The best way to prevent that is by running such a good process and producing such a good product that no one will want to do anything else.

This column will continue to promote the practical achievement of that goal. ♻️

Paul van der Werf is president of 2cg Inc. in London, Ontario.

Contact Paul at www.2cg.ca

