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An "Organic" Approach to Waste Diversion

Organic wastes a major part of Ontario's 60 per cent diversion paper

A friend of mine used to joke with me about how Ontario was "about to explode" in terms of waste diversion. The province, so full of promise and perennially poised, never really seemed to gain the critical mass to move en masse to tackle waste diversion past the half-way goal.

The province has been at a plateau for a number of years. To date, diversion has focused on dry recyclables, both residentially and in the IC&I sector. Backyard composting, leaf and yard waste composting and some communities with fully integrated collection of organic wastes and composting programs

have driven waste diversion to as high as that portion can go. (It currently sits at 28 per cent.)

More recently there have been some very positive developments including the promulgation of the *Waste Diversion Act* and the subsequent establishing of Stewardship Ontario. Certain communities such as Toronto, Hamilton and the Region of Niagara have strengthened diversion programs.

These communities (and others) have recognized that to tackle diversion in a meaningful way means including the full suite of organic wastes into a program.

More recently the province replaced the old 50 per cent diversion goal with a new 60 per cent diversion target. This is to be achieved by 2008, according to the recently released paper, "Ontario's 60 per cent Waste Diversion Goal Discussion Paper." There's already considerable hand-wringing in some quarters about how such lofty goals can be achieved in so little time.

What's heartening, however, is that the province has finally seized on the most obvious (albeit challenging) piece of the puzzle. Organic wastes account for around 38 per cent of household waste and 11 per cent of IC&I

waste. To even tackle the previous 50 per cent goal the gamut of organic wastes should have been on the table.

In the "Moving Forward Section" of the discussion paper, the province describes a number of possible initiatives to deal with organic waste including:

- Accelerating residential centralized composting;
- Develop a financing strategy for centralized composting;
- Phasing in a ban on disposal of organics.

There is a definite path that can be taken to meet these goals. The 1980s rock group The Tubes once had an album entitled the "Completion Backwards Principle." Not that compost is rock and roll but I think it is useful to work from the back to the front because it will help us understand what and how it needs to be done.

Compost quality and uses

Good quality compost won't market itself, but it will sell.

These revised diversion goals could have a significant impact on the amount of compost produced. Compost markets have been considered and developed in the province. Some additional markets may need to be developed. We need to ask ourselves, "What types of products do we want (and also *not* want) in the marketplace?"

Recognizing that not all composts will be used for top-of-the-line purposes, I think it's important to aim high in terms of compost quality, meaning that high-end products are produced as well as a variety of other products. When I started to undertake a national compost markets study for the Irish government, I recall the prevailing opinion among the pre-emerging industry was that compost would make good landfill cover. I spent considerable time trying to convince them that if that was their highest aspiration they might just want to keep all this organic waste in the landfill.

The composting industry in Canada will shortly be moving to the next level in terms of assuring compost quality; a voluntary compost sampling and analysis regime is being developed. The goal is to ensure that high quality products make it to the marketplace and that customers have some level of

comfort when purchasing compost products.

To facilitate the increased use of compost, Ontario should consider developing the use of

compost for its own needs, i.e., via procurement. Additionally, the refining of relevant existing specifications to include good quality

compost should be considered. This will open up new markets for compost.

Processing technologies

Ontario (and Canada generally) has developed a strong composting industry thanks to the hard work of this industry and facilitative efforts of organizations such as the Composting Council of Canada. (*See event information pgs 26-29 in this edition.*)

Within this industry there are established manufacturers and distributors of composting technologies with a track record. There is often the temptation to uncover some heretofore unknown but promising (on paper) technology. Sometimes it's easier to select a technology that has had no failures even if it has had no successes.

We also need to remember that technology is a means to an end, not the end itself. We shouldn't be tempted to confine our thinking to only in-vessel composting systems. While they have some obvious advantages, let's not overlook simpler but effective technologies where applicable. Good quality compost can be made from all properly-operated composting technologies.

Organic waste collection and quality

Composting, unlike recycling, is more than a material handling and consolidation exercise. We have to be careful not to apply our developed mindset in collecting blue box wastes to collecting the expanded spectrum of organic wastes.

Composting is a *manufacturing* process; its new products can be used in a variety of applications. How we collect the organic commodities is critical.

As a composting "purist" I would suggest that we try to collect organic waste (particularly food wastes) without using plastic bags. But as a realist I know this is naïve. As a practitioner I have seen programs using plastic bags that work quite well.

We must balance public convenience with the impact this convenience has on the deportment of the feedstock. For instance the City of Toronto's composting program is a very aggressive attempt to divert as much as organic waste as possible and appears to be working well. The option of lining the compost collection containers and the kitchen collection con-

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tainer with plastic bags may be convenient for householders, but operationally presents a potential “Russian doll” for composters (i.e., plastic within plastic). This can be dealt with, but costs more. The potential impacts on compost quality have not been fully evaluated.

Each community ultimately has to find what works for them — balancing diversion with costs. Remember, though, that feedstock quality is the major determiner of compost quality. “You are what you eat” is apt for us and apt for the microorganisms responsible for the composting process.

Source separation of organic wastes results in the cleanest feedstocks and the best quality compost. It should be the standard. In the past some Ontario communities have gone down the route of composting mixed wastes. These

facilities are no longer operational. They seem attractive and efficient on some levels but will result in inferior products.


Landfill bans

Although Ontario’s proposed landfill ban on organics may be met with resistance from some quarters, I think it sends the clearest of signals.

In 1998, Nova Scotia placed a ban on sending organic wastes to landfill. Since then, approximately 75 per cent of households and 85 per cent of IC&I establishments have collection programs in place to divert their organic waste. Setting the bar as high as possible works!

I would add a number of caveats to this. First, organic wastes need to be clearly

defined (e.g., food wastes, leaf and yard wastes and compostable materials). Wastes that have an organic waste component as well as an inorganic component (e.g., plastic) may not be suitable.

Second, organic wastes must be collected in a source-separated fashion. We need quality diversion. A ban that would result in the inclusion of inferior feedstocks and the development of poor quality separation programs — just to meet the letter of the law — should be avoided. 

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