The Grocery Bag Dilemma

By Lori Jamieson

The wonderful convenience of plastic grocery bags is being overshadowed by the disposal problems that they present. Unlike paper and food wastes (which account for 36% and 25% respectively of the total Canadian waste stream), plastic, at 5%, isn't environmentally compatible. It doesn't begin to decompose for at least 100 years, and over its break-down process, which can take up to 20,000 years, it can produce carcinogenic toxins such as methane, tolvene, benzene, mirex and xylene. If plastic bags are incinerated, they produce noxious gases.

It is obviously important to apply the reduce and recycle principles to plastics, and indeed packaging material in general. In a practical sense, we should shop where paper bags are used, take our own paper bags, if possible, or consider a return to the traditional "market basket" while shopping. Re-use any plastic bags you receive by taking them back to the store; take any extras you have to a local food bank.

While a growing number of consumers are trying to tackle the receiving end of the plastic bag problem, there has also recently been some encouraging producer response. Canada Safeway Ltd. is introducing a plastic grocery bag that gradually disintegrates, under sunlight, into small fragments that eventually become carbon dioxide and water. The plastic is mixed with a resin that was invented by a University of Toronto researcher. The resin, called Ecolyte, has sensitivity to ultra-violet rays, and this causes the bags to photodegrade over a 6 month period. Unfortunately, bags buried in a landfill site (and over 94% of our garbage is) will not see sunlight, and hence will not be affected.

The bags cost 6 to 9% more to produce than conventional bags, which translates into a less than 1 cent per bag increase in cost. These bags are currently being used on an experimental basis in Safeway stores in British Columbia, and have recently appeared in some Ontario stores as well.

Manufacturers have also indicated some interest in combining Ecolyte with a polystyrene compound to make coffee cups and the "clam shell" boxes used for fast food hamburgers, etc.

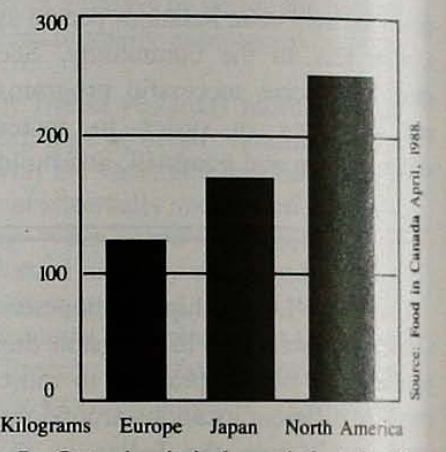
The St. Lawrence Starch company has bought world-wide rights to Echostar, a starch based additive that makes plastic biodegradable. Soil microbes present in landfill sites begin eating the starch almost immediately upon burial. Grocery bag plastic with a corn starch additive is already being used in the United States, and the National Corn Growers Association has designed a new logo to be printed on products made with this new plastic.

The recycling of plastic, in its many forms, poses special problems because it must be sorted into different composition families to be re-processed. The Society of Plastics Industry (SPI) hopes to develop a universal ID symbol for rigid plastic containers to assist in hand separation, but the sorting is still an involved process. What can be done with the end products? One of the most interesting methods uses shredded plastics, heated and blended into a form which becomes solid when cooled. This process produces a synthetic lumber which

can be sawn, nailed, screwed or drilled, but doesn't rot, and doesn't have to be toxically treated (like pre-treated lumber) for use in wet conditions.

The grocery bag problem is only the tip of a much larger packaging iceberg – a little problem that grew with the development of plastic and other effective and convenient ways of storing and exhibiting products. It is estimated that the packaging discarded from the actual items we need makes up between 35 and 50% of all waste produced in Canada. This packaging problem is being approached and attacked on several fronts. In Italy, new products aren't allowed in the market if they aren't biodegradable or recyclable. New York State is considering a waste initiator's tax on packaged goods to encourage consumers to buy recyclable products. The Quebec government, facing a severe shortage of landfill sites by 1993, is preparing legislation to enforce the reduction, re-use and recycling of packaging. The new laws may include a stronger returnable container policy, packaging design guidelines, or restrictions allowing only recyclable products and packaging to be introduced.

Consumption of Packing Materials Per Person 1985



In Ontario, it is hoped that the blue box program will expand into 1 1/2 million households by 1990, but the program is still only capturing 10% of packaging produced. There are also plans to design a symbol to be printed prominently on packages that are recyclable.

The Packaging Association of Canada, on behalf of its members, is trying to fight the bad guy polluter image that has developed around their products. The association points to efforts to reduce the amount of throwaway packaging used. For instance, plastic film pouches reduce the amount of packaging required for milk, margarine tubs can be reused again and again for leftovers, etc. Producers also describe the issue of priorities that they must face, determined at least in part by consumer demand. Should a 2 mm combination of plastic film, foil and paper (used to package dry soup mix, etc.) that is non-recyclable be replaced by a foil pouch in a paper box sealed in plastic, which would cost more to produce and transport, take up more shelf room. The second option also produces