Ausasia Link Pty Limited

Inquiry into Waste Generation and Resource Efficiency
Productivity Commission

14th February 2006

Summary.
Ausasia Link Pty Ltd ("Ausasia"), which trades under the name BioFilm in Australia and New Zealand, is a partner of BioBag International AS ("BioBag") of Norway. BioBag is the world's largest producer devoted entirely to production of biodegradable and compostable films and a pioneering world leader in the use of bioplastic in efficient recovery of organic wastes. The major use of the products is collection of organic wastes. Ausasia and BioBag intend to build a film production plant in Australia within the next 12 months.

As a founder member of the Australasian Bioplastics Association ("ABA") Ausasia endorses the ABA submission but wishes to add some specific remarks.

Bioplastics.
MaterBi from Novamont SpA, the bioplastic used by Ausasia Link, is made principally from renewable resources, chiefly corn (maize) and/or potato starch. As use of MaterBi rises in Australia Novamont hopes to produce the polymer in Australia using Australian raw materials. Novamont has commissioned a LCA, which shows significant benefits of MaterBi over its life cycle. This bulky document can be provided to the Inquiry on request.

Thus use of MaterBi films has significant potential benefits in reducing greenhouse emissions, in supporting Australian agriculture and import substitution.

Organic waste collection

BioBag and its partners worldwide are leaders in the use of bioplastics in recovery of kitchen organics at source. This is done by using the characteristics of MaterBi to obtain effective collection rates. In some communities over 90% of available household organics is collected By using ventilated bins and highly breathable MaterBi bags to collect the waste the organic waste breathes, avoiding anaerobic conditions and mould formation and losing weight through water evaporation. This has the following beneficial effects:

- Householder co-operation
- Better hygiene in the home and for collectors
- Fewer odours and flies
- Reduction in weight of waste matter to be transported with consequent energy savings
- Low contamination rates
- Easier processing to compost

The same principles can be used in commercial kitchens.

There are substantial benefits from use of this method of collecting organics:

- Considerable reduction in waste to landfill leading to much lower generation of greenhouse gases.
- Lower transport costs
- Compost produces excellent results as a soil conditioner and fertilizer
- Compost improves soil structure and conserves water
- Composts reduce the need for pesticide use

Currently in Australia, Port Maquarie-Hastings Council is intending to introduce collection of kitchen organics using composting bags system in mid 2006 and Burnside Council in S Australia, with support, from ZeroWaste SA is conducting a very carefully monitored trial on the use of ventilated bins and composting bags. Results to date have been excellent.

A large component of household and commercial waste is biodegradable. Only when that biodegradable fraction is diverted from landfill to composting or anaerobic digestion can we hope to approach zero waste to landfill targets. Some bioplastics are specifically designed to be biodegradable and compostable. A bioplastic product which has been tested and certified to the requirements of the EN13432 standard, will break down to carbon dioxide and water within a commercial composting cycle, leaving no residue other than carbon biomass. The products of biodegradation are carbon dioxide, water and residual carbon biomass, the same as for other vegetable or organic matter. There is no toxic or polymeric residue. Bioplastic used for the collection, transport and disposal of food and yard waste to commercial composting, will biodegrade at the same rate and to the same extent as other organic components. The products of organic recycling through composting are returned to the soil and absorbed in growing more crops thus completing the growth cycle.

Agricultural films

Agricultural weed suppressing PE mulch films create major waste problems

a) through disposal of dirty plastic which often has to be transported many kilometers for disposal and
b) because as the films are lifted small pieces of film break off and enter the soil. Over time this can render the soil sterile. This has happened in parts of Southern Spain. We understand there are concerns over this effect in parts of Australia. Italy has now banned the use of PE mulch sheets.

By contrast a biodegradable film can be ploughed into the soil at the end of the season. It will biodegrade in the soil leaving only residual carbon biomass and avoiding all problems of disposing dirty plastic. Use of breathable plastics such as MaterBi is preferable as they better preserve the health of the soil.

General observations

- BioPlastics do not solve behavioural problems
- Nor is their always an advantage in using biodegradable materials instead of conventional plastics, the bioplastics should add value
- Ideally bioplastics should be used in closed loop systems
- Not all bioplastics are made from renewable resources

Development of a bioplastic industry in Australia has excellent export potential.