

Introducing **NEXT GENERATION**  
Degradable Plastic Bags



**Johnson**  
**Bag CO inc**



800-621-0109

800-621-4545 fax

[www.johnsonbag.com](http://www.johnsonbag.com)

[info@johnsonbag.com](mailto:info@johnsonbag.com)

You now have access to a **true**  
degradable Bag



# *Green Initiative*

We can make you Environmentally Friendly

Reduce, Reuse and Recycle

Fully Degradable Packaging *NOW* available

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Reduce your  
Footprint



# *Why Go Green?*



*In the year 1800, the Earth's population was  
One Billion People*

*Estimation for 2050: 9 Billion People*

*We have a fixed amount of resources*

*By the Year 2050  
we will only have 25% of the resources available  
Per capita that people had in 1950*

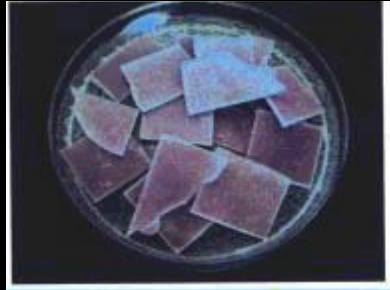
- Our additives make plastic packaging and products FULLY Degradable

All of the commodity plastic resins used in the world today will take **hundreds of thousands of years** or more to degrade naturally in the environment -Plastic products with our additives will biodegrade to become some of the soils' organic components in **Less Than 2 years**

No special manufacturing requirements

**Go Green** Call: 800-621-0109 Toll Free

# Time Elapse Photographs of the Pellet Formula in 5-Mil Cast LLDPE Film on Tryptic Soy Agar Plates



Day 1 Jan-6-1997



Day 47 21-Feb 97



Day 130 15-May 97



Day 219 13-Aug-97



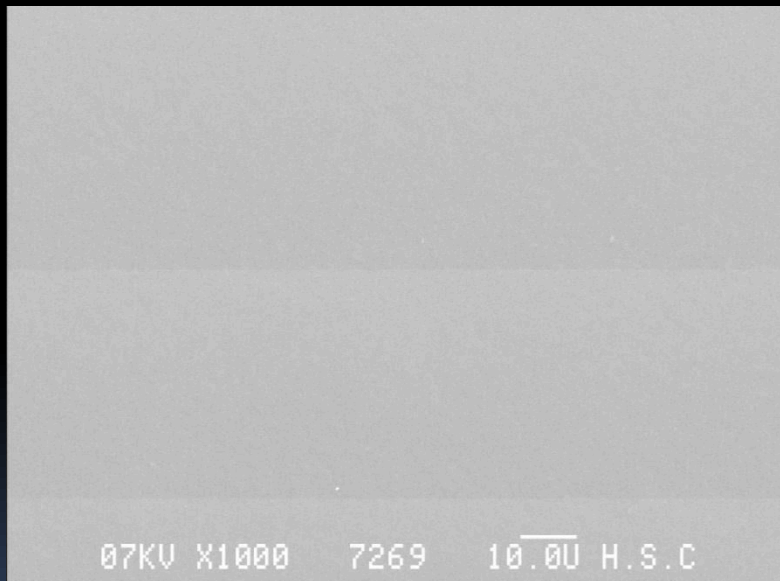
Day 537 16-Jun 98

Linear Low Density Polyethylene is fully degraded by day 537



## Study of Film Samples Buried in Soil for One Month

Otherwise identical 40  $\mu\text{m}$  LLDPE blown film samples were buried in the same soil conditions for one month, then removed and photographed using a scanning electron microscope. (the test samples contained one percent load, by weight of our Bio-Pellets while the control samples were without the additive)



Control – No Additives

Photographs courtesy of Hyosung Corporation, Korea



Bio-Additives –one percent load

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# REDUCE

The strength-to-weight-ratio for plastic packaging and products is far **superior** to other materials thereby dramatically reducing the overall amount of material used and Saving you money.

Plastic Products do not have to be made thicker when our additives are used

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# REUSE

Many plastic products can be reused for other purposes before eventual disposal

The Additive mechanism for the breakup of the long polymer chains does not use heat, light or mechanical stress as initiators: therefore things like plastic bags and coffee cans can be reused **indefinitely**

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# RECYCLE

Recycling of plastic materials makes sense when natural resources are saved

Plastic products with the Bio-additive can be recycled both by the manufacturer in their internal scrap regrind and in post-consumer recycling programs. Our Degradable plastics will not gum up recycling machines like compostables can

Our Bio-additives can be used with recycled resins

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# Beware of Misleading Claims

Degradable claims can be misleading if a product needs oxygen and/or sunlight to degrade. Products are mostly disposed of in landfills where it gets neither



The only condition that is necessary for a plastic product with our additives to degrade is constant contact with other degrading material



When Purchasing Plastic Packaging, ask "does your product need oxygen and/or sunlight to degrade

# Where are conditions not favorable for our products to degrade?

Warehouses

Store Shelves

Homes

Offices

Our bags will degrade, when you dispose of them



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# Benefits of our Polyethylene Packaging

Plastic products are **fully Degradable**-No toxic residue

Manufactures in clear film or in any color with **no appreciable change in physical properties**

**FDA compliant** for use in applications with food contact

Products can be marketed as “**Degradable**” because they will biodegrade aerobically or anaerobically without the need for additional exposure to heat, light or physical stress. Therefore our products will biodegrade wherever they are disposed of where there is other biodegradation occurring.

Call Us to Help you Go Green

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