

# Naturally a biodegradable **Printing** choice

## Horticultural Marketplace:

Biodegradable plastics are a concern for our industry. We are committed to giving our customers material options, including ones that promote environmental stability. SATO's biodegradable plastic material provides a perfect palette for offset printing comparable to traditional plastics. Very durable and an excellent choice for your Horticultural applications. Let SATO help you with your next environmentally smart horticultural printing project. Many of the plastics used today in the Horticultural marketplace are made up of non-recycled and recycled plastics.

- **A large portion of these plastics will not break down over a long period of time. This doesn't help reduce the waste footprint in our environment.**
- **All together recycling is a great start for our market place, but a large portion of materials will still enter the landfill.**
- **The best alternative is to have a plastic that's not only durable, but will breakdown naturally.**

## Controlled Degradation:

A biodegradable plastic is one where the degradation results from the action of naturally occurring microorganisms such as bacteria, fungi, and algae. SATO's biodegradable plastics will biodegrade when disposed of in a natural environment (landfill or other microorganism rich area).

- **Expected range for this process is 9 months to 5 years.**
- **This material does not measurably biodegrade from conventional product usage in open air or storage, so it will withstand the horticulture marketplace like traditional plastics.**
- **A degradable plastic, per ASTM 1991, is one that is designed to undergo a significant change in its chemical structure under specific conditions resulting in a loss of some properties that may vary, as measured by standard test methods appropriate to the plastic and application in a period of time that determines its classification.**

## Certification:

SATO's biodegradable plastics undergo a certification process that confirms numerous plastic samples with specific "biodegradable content" have been tested by independent laboratories in accordance with standard test methods approved by ASTM, ISO and other such standardization bodies to determine the rate and extent of biodegradation of plastic materials.

## Technical Information:

Results from the tests and related biodegradation and ecological impact experiments in various environments certified that SATO's biodegradable content products can be marketed as biodegradable and safe for the environment. Biodegradation of test samples used the following:

- **ASTM D5209-91, "Standard Test Method for Determining the Aerobic Biodegradation of Plastic Materials in the Presence of Municipal Sewage Sludge."**
- **ASTM D5338.98, "Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials under Controlled Composting Conditions" (equivalent to CEN prEN WI 261085 and ISO 14855 "Evaluation of the Ultimate Aerobic Biodegradability and Disintegration of Plastics under Controlled Composting Conditions.")**
- **ASTM 5511, "Standard Test Method for Determining Anaerobic Biodegradation of Plastic Materials Under High Solids Anaerobic Digestion Conditions."**



DCS & Labeling Worldwide

**Labeling Solutions America, Inc.  
Horticultural Division**

930 Jimmy Ann Dr.  
Daytona Beach, FL 32117

Phone: (800) 874-4465 Fax: (800) 356-7650  
Email: [sales@satolabeling.com](mailto:sales@satolabeling.com) Web: [satolabeling.com](http://satolabeling.com)