

Draft
Notes from Panel Discussion of Markets
Agricultural Plastics Recycling Workshop
Northampton, MA
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Panel Moderator: Carolyn Grodinsky, VT DEC

Panelists: Lois Levitan, Environmental Risk Analysis Program, Cornell University; Dennis Dematte, Cumberland County Improvement Authority, NJ; Paul Tomasi, Northeast Kingdom Solid Waste Management District; Mark Mondo, Mondo Polymer; Donald Reeners, Ultimate Plastics Recycling; Andrea Dahl, Trex Inc.

What are the Markets for Agricultural Waste Plastic?

- Lumber (reported to be the largest potential use of agricultural plastic waste)
- Parking stops
- Emerging technology, such as fuels
- Low-pressure molded products with fillers

Trex takes only polyethylene films; clear, clean dry stretch wrap. Agricultural film and boat wrap are secondary.

Ultimate Recycled Plastics will take anything but PVC but can not handle film yet. The company is small.

Mondo Polymer and Ultimate Recycled Plastics think there are markets for colored materials. An example is beam supports. Worldwide approximately 4 million feet per year are used in this application. These can be made from colored plastics. There is a need to find more markets for less visible products such as this one.

Is co-extrusion possible? Could agricultural plastics be used for the interior material? The panelists said this is a difficult process that requires a high quality virgin polymer for use in products that are located outside.

Challenges For Recycling Ag Plastics:

- Contamination of the plastic with dirt, grass, manure, and other contaminants
- Water in the waste can cause bubbles in plastic lumber
- Color and pigments in the plastic (can make the plastic lumber produced by Trex look streaky or milky)
- Lack of a common language for describing agricultural plastics to potential buyers; misunderstandings can occur when suppliers use different terminology
- Finding a reputable broker for the agricultural plastics particularly generated in smaller rural areas
- Large plastics companies, such as Trex, will not buy their materials from brokers; they want to buy directly from the source
- Rise in the use of virgin materials

Ideas for Improving Recycling

The following is a summary of the ideas that were brainstormed by the panelists and the audience:

1. Need conversation with plastic manufacturers on why agricultural plastics are manufactured with color. Is the color needed? Some participants thought the white color might be needed to reflect heat for over-wintering. For marina plastics, the color helps ventilation and keeps the boat warm in the winter.

The Association of Post-consumer Plastics Recyclers has a program called "Champions for Change" that fosters dialogues between manufacturers and recyclers. They could be approached about brokering possible dialogue over agricultural plastics.

Also, the Product Stewardship Institute holds similar dialogues and has worked with electronics and thermostat manufacturers.

2. Need to develop Eco-labeling for recycled lumber. Labels could include percent of recycled material.
3. Need to educate farmers about why burning wastes plastics is illegal (where that applies) and dangerous. The farm community population is older and grew up burning waste; needs to understand why it cannot do this anymore.
4. Make collection more convenient.
5. State agencies could use their purchasing power to demand certain percent of recycled materials.
6. Collection programs could focus on good looking material. Stakeholders could figure out as a group what are the best materials to collect and what are the best practices for collecting this material. This is the best way to ensure farmers will not get stuck trying to recycle materials nobody wants.
7. Education is not enough. Need to support development of infrastructure, and the people who make the equipment, such as balers, could be involved.
8. Work on the barriers to use of recycled materials. (i.e., codes, such as ATSM)
9. Consider expanding the Agricultural Containers Recycling Council (ACRC) program to cover all plastics used on farms.
10. Break down barriers between agencies involved with supporting agriculture and the environmental authorities.
11. Given the current political climate, the farm community needs to be speak up louder and be heard.

12. Should the states consider establishing a deposit on the materials to facilitate and fund their collection?

Suggested Next Steps:

--The Massachusetts Department of Environmental Protection (MA DEP) and state agricultural agency have a close relationship, and are currently collaborating on farm composting; MA DEP will look into plastics recycling, and what the state agricultural agency is doing to promote this

-- Each state could hold a follow-up meeting involving all stakeholders

-- Form an agricultural plastics marketing cooperative

-- Organize a meeting with the film manufacturers to discuss how to manufacture the products in a way that makes them more easily recycled

-- Organize a regional follow-up meeting/workshop next year