

RECYCLING

HORTICULTURAL PLASTICS

Best Management Practices to Keep Plastic Clean Enough to Recycle



MULCH and OTHER THIN FILMS

- **CUT** into pieces of size and weight one person can handle.
- **BRUSH** or **SHAKE** to remove clumps of soil, stones, plant matter.
- **ROLL** or **FOLD DRY FILM** into bundles about the size of a large pillow (2'x 3').

HIGH TUNNELS, HOOPHOUSE COVERS

- **CUT INTO SECTIONS** to **FEED “NIP ROLLER”**
Dimensions will depend on thickness and flexibility of film.

RIGID PLASTIC POTS, CONTAINERS, DRIP TAPE, TRAYS



- **STACK POTS and TRAYS:** Knock out loose soil. Keep dry. Tie onto pallet or compress with baler.
- **CHEMICAL CONTAINERS:** Triple rinse to clean. See Ag Container Recycling Council (ACRC) website: www.acrecycle.org.

STORING PLASTIC, MAKING BALES

- **STORE UNDER COVER:** Keep clean and dry as possible — e.g., store on pallets in a barn, trailer, hay wagon or outside under a tarp.
- **DO NOT MIX DIFFERENT PRODUCTS** in a **BALE**
Separate clean films from dirtier. No PVC accepted.
- **BALING:** Make 1000 – 1200 lb bale.
Label with permanent marker: type of material, date, contact/phone/location.



Recycling Ag Plastics Project

Life Cycle Stewardship of Agricultural Plastics

<http://environmentalrisk.cornell.edu/AgPlastics>

Mobile: 607-216-7242 Office: 607-255-4765



The Recycling Ag Plastics Project (RAPP) is developing infrastructure and markets for waste film and rigid plastics from dairy, livestock and horticulture. RAPP is a collaboration of Cornell University with agriculture producers and agriculture, environment, economic development and solid waste/recycling agencies, organizations and businesses. Funding has come from the NY Farm Viability Institute, NYS DEC Environmental Protection Fund, US EPA Region 2 Pollution Prevention, NYS Empire State Development Environmental Services Unit, USDA Rural Utilities Services, NEWMOA, USDA Hatch/Smith-Lever. The recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of any of these agencies.

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What are Agricultural Plastics?

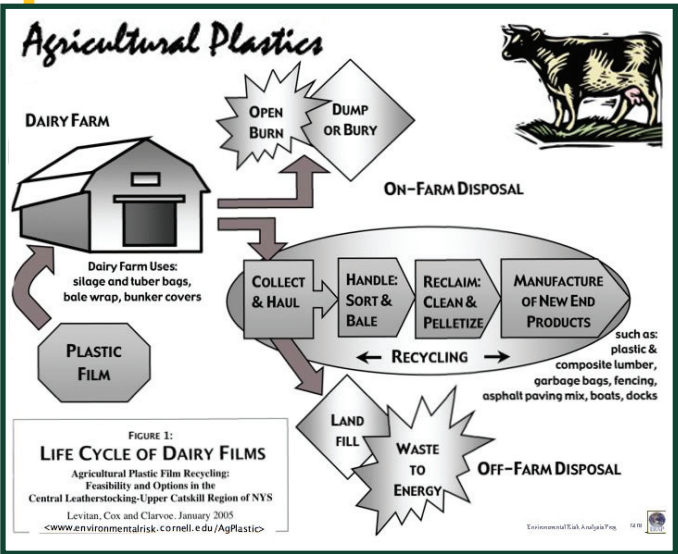
Plastics have taken the place of the longer lasting and/or natural materials that used to be widely used on farms. Many of these substitutions make good sense: Plastics are often safer to use, improve production efficiency, cost less, and permit more flexibility in management than the concrete silos, glass greenhouses, sisal twine and other products and packaging they replace.

AG PLASTICS INCLUDE: DAIRY SILAGE BAGS • BUNKER SILO COVERS • BALE WRAP • BALE NET • POLYTWINE • MAPLE TUBING • IRRIGATION DRIP TAPE & TUBES • GREENHOUSE & HOOPHOUSE COVERS • HIGH TUNNELS • NURSERY POTS & PLUG TRAYS • MULCH & FUMIGATION FILMS • TARPS • BIRD NETTING • PESTICIDE & DAIRY CHEMICAL CONTAINERS • SEED, FEED & FERTILIZER BAGS • LOW TUNNELS • ROW COVERS • BEE HIVE BODIES & FRAMES • AQUACULTURE SUPPLIES •

How Do Farmers Get Rid of Ag Plastics?

Some used ag plastics are hauled to a solid waste transfer station or landfill. Much of the rest is either left in the fields, plowed into the ground, or burned in an open fire. Burning “ag plastics” in an open fire generates high levels of dangerous, polluting emissions (including particulates that settle in the lungs) and extremely toxic dioxins that can deposit on food and feed and enter the food chain. Stashing waste plastic on the farm can clog water channels, be a choking hazard for livestock and wildlife, and create breeding habitat for mosquitoes and rodents. And it is not pretty.

Biodegradable plastics are rarely a feasible alternative to conventional ag plastic products and recycling has not been a viable option for most types of ag plastics.



Recycling Ag Plastics Project Goal: Recycling!

It isn't an easy goal to achieve because ag plastics are typically dirtier than other used plastics. They are also bulky and widely dispersed across the rural landscape, adding complexity and cost to collection.

To jump these hurdles, RAPP is

- promoting farmer adoption of Best Management Practices to keep ag plastics in condition to be recycled
- acquiring mobile baling equipment to compact used plastic for cost-efficient transport from farms to recyclers
- cultivating manufacturing markets to process used plastic into new products (e.g., plastic lumber, roof tiles, sweet crude oil)
- promoting consumer purchase of products made from recycled ag plastics
- facilitating a national dialog about product stewardship of agricultural plastics.

Criteria for Evaluating Quality of Plastic Submitted for Recycling			
INDICATOR:	UNACCEPTABLE	FAIR	GOOD: BMPS FOLLOWED
Clean	Caked with debris (silage, grit, mud)	Some debris	Clean
Dry	Wet	Moist	Dry
Covered	Not covered and therefore too wet, dirty or degraded to accept	Inadequate cover	Covered
Bundled	Not prepared in bundles	Bundles too big	Appropriate-size bundles
Separated	Mixtures of different kinds of plastic, or plastic mixed with trash. Impractical to separate at the point of collection.	Some mixing of different types, but separation feasible	No inappropriate mixing of different kinds of plastic

Ag plastic recycling is still in an experimental phase, but recycling projects are being implemented in several regions of NYS and elsewhere. Contact regional or statewide project leaders to get involved:

- **Recycling Ag Plastics Project, New York State & beyond:** Lois Levitan, Project Leader (lcl3@cornell.edu, 607-255-4765), Blake Putman, NYS Field Coordinator (blp26@cornell.edu, 607-216-7242)
- **NY-Capital District:** David Cox, Schoharie Co CCE (dgc23@cornell, 518-234-4303)
- **NY-Lake Champlain Watershed District:** Steve Mahoney, SWCD Clinton Co and Anne Barlow, CCE Clinton Co (steve.mahoney@ny.nacdn.net, 518-561-4616 or alb326@cornell.edu, 518-561-7450)
- **NY-North Country West:** Chanda Lindsay, St Lawrence/Black River RC&D (Chanda.Lindsay@ny.usda.gov, 315-782-7289 x129)
- **NY-Southern Tier:** Diane Fiorentino, SWCD Chemung (dfinorentino@stny.rr.com, 607-739-2009)
- **Vermont:** Annie MacMillan, VT Agency of Agriculture, Food, and Markets (anne.macmillan@state.vt.us, 802-828-3479)
- **Other New England:** Northeast Waste Management Officials' Association (agplastics@newmoa.org)
- **Local Contact:**