



US Composting
Council

Yard Trimmings Ban Impacts



US Composting
Council

The US Composting Council

- Founded in 1990
 - National non profit 501 (C)(6) trade and professional association representing composters and allied professionals which also directs the CCREF – 501 (C) (3) research arm of the association
 - Compost producers, marketers, consultants, engineers, regulators, laboratories, academics, and corporations going “green”
 - Over 600 members and growing
-



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The US Composting Council

- The US Composting Council (USCC) promotes composting and compost use to enhance soils and provide economic and environmental benefits to our members and society
 - USCC achieves this mission by:
 - developing best management practices
 - establishing standards
 - educating professionals and the public
 - enhancing product quality
 - developing markets for compost products
 - supporting and performing research
-

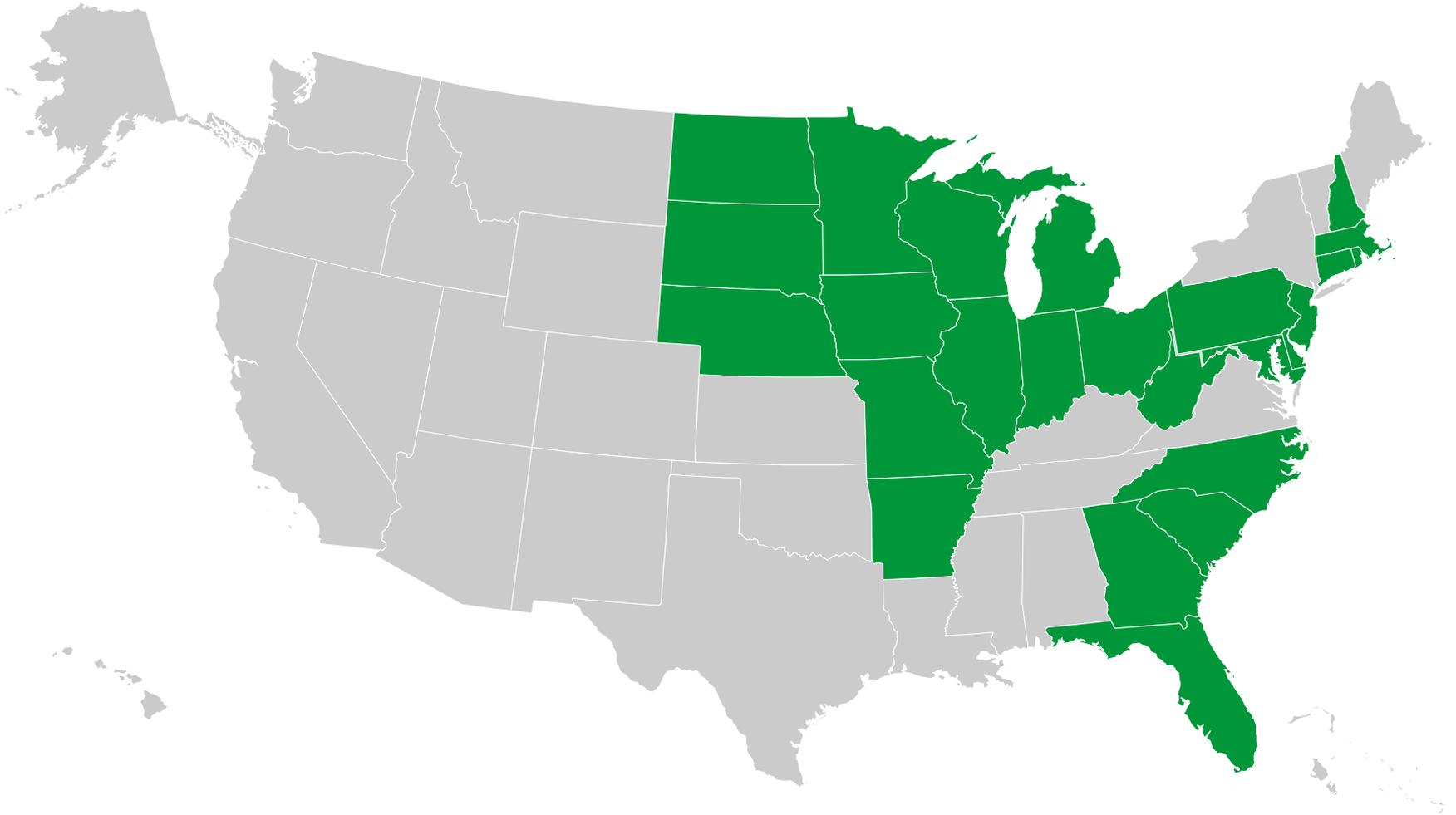


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Yard Trimmings Disposal Bans

- Reaction to rapidly rising costs and decreasing numbers of landfills
 - Motivated by concerns over landfill capacity, focus on finding alternatives to landfilling
 - Most bans initiated in early 1990' s
 - Latest was Delaware in 2010
 - Currently 24 states have landfill bans in effect
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States with bans on landfilling yard trimmings, 2010



Data source: State of Garbage in America 2008, Biocycle magazine, December 2008



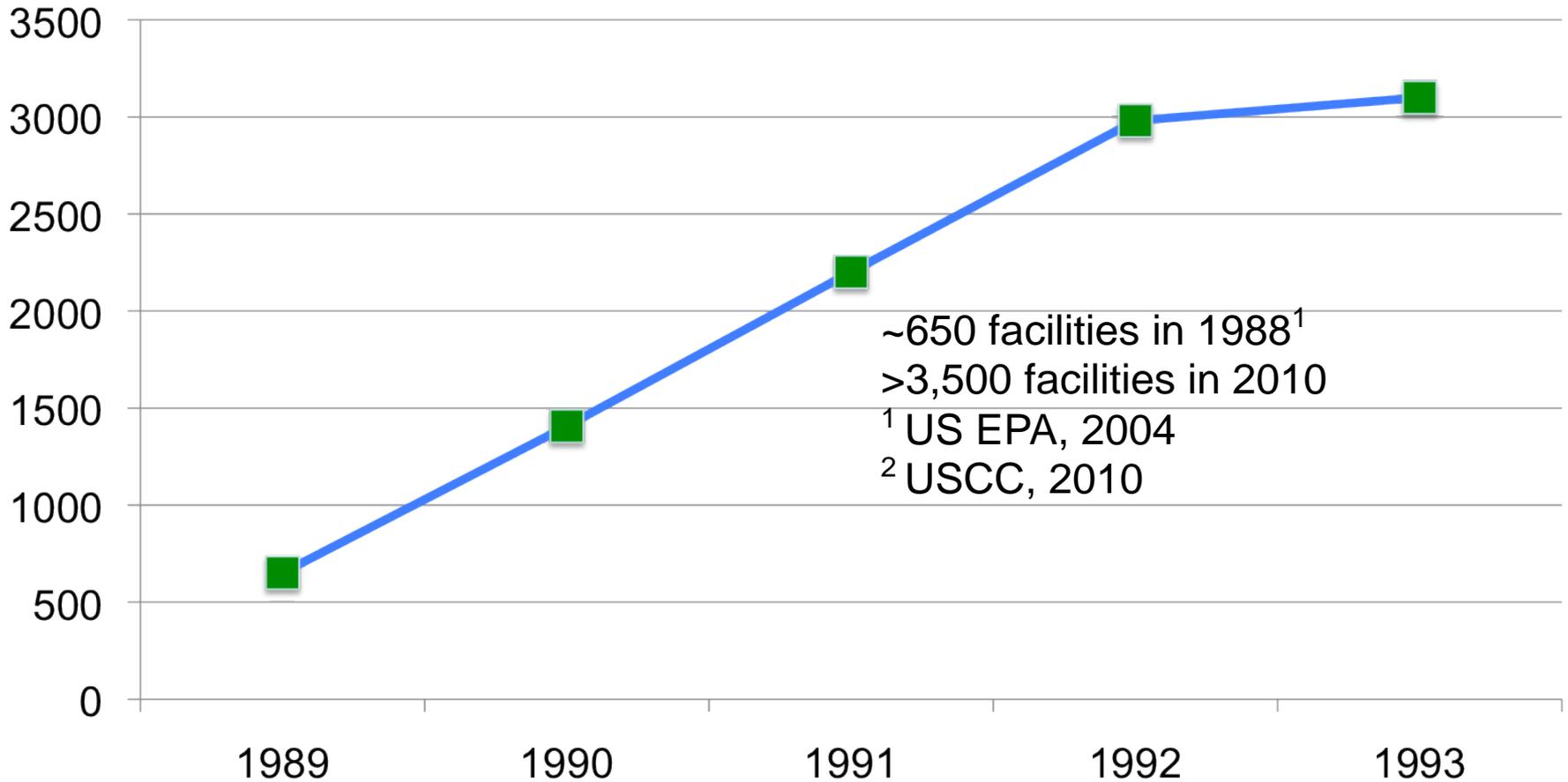
Yard Trimmings Disposal Bans

- Variation in definitions of yard trimmings among states
 - Leaves always
 - Many include leaves, grass, brush, large wood
 - Disposal bans stimulated rapid increase in composting from 1988 to 1995
-



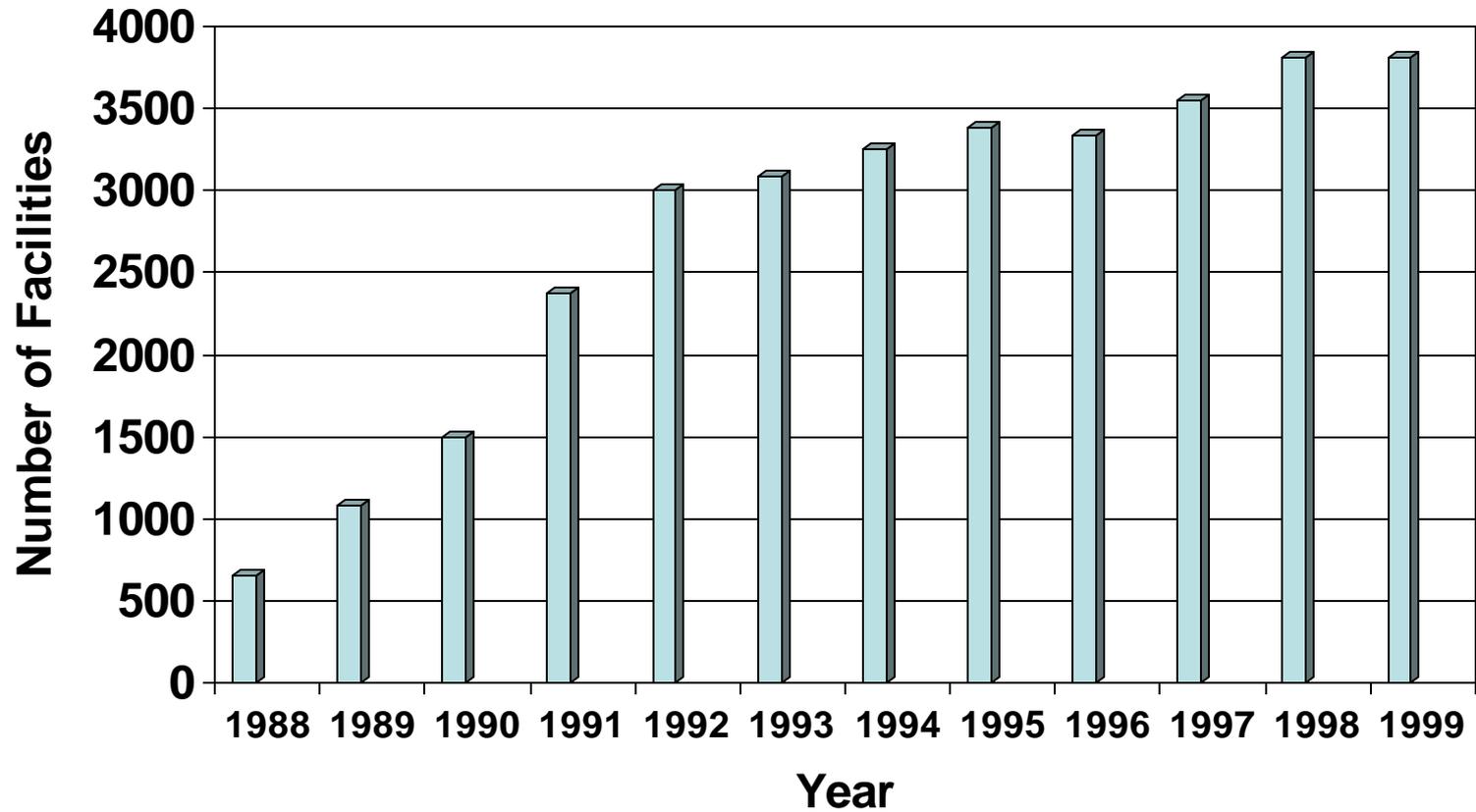
Increase in composting

No. of facilities





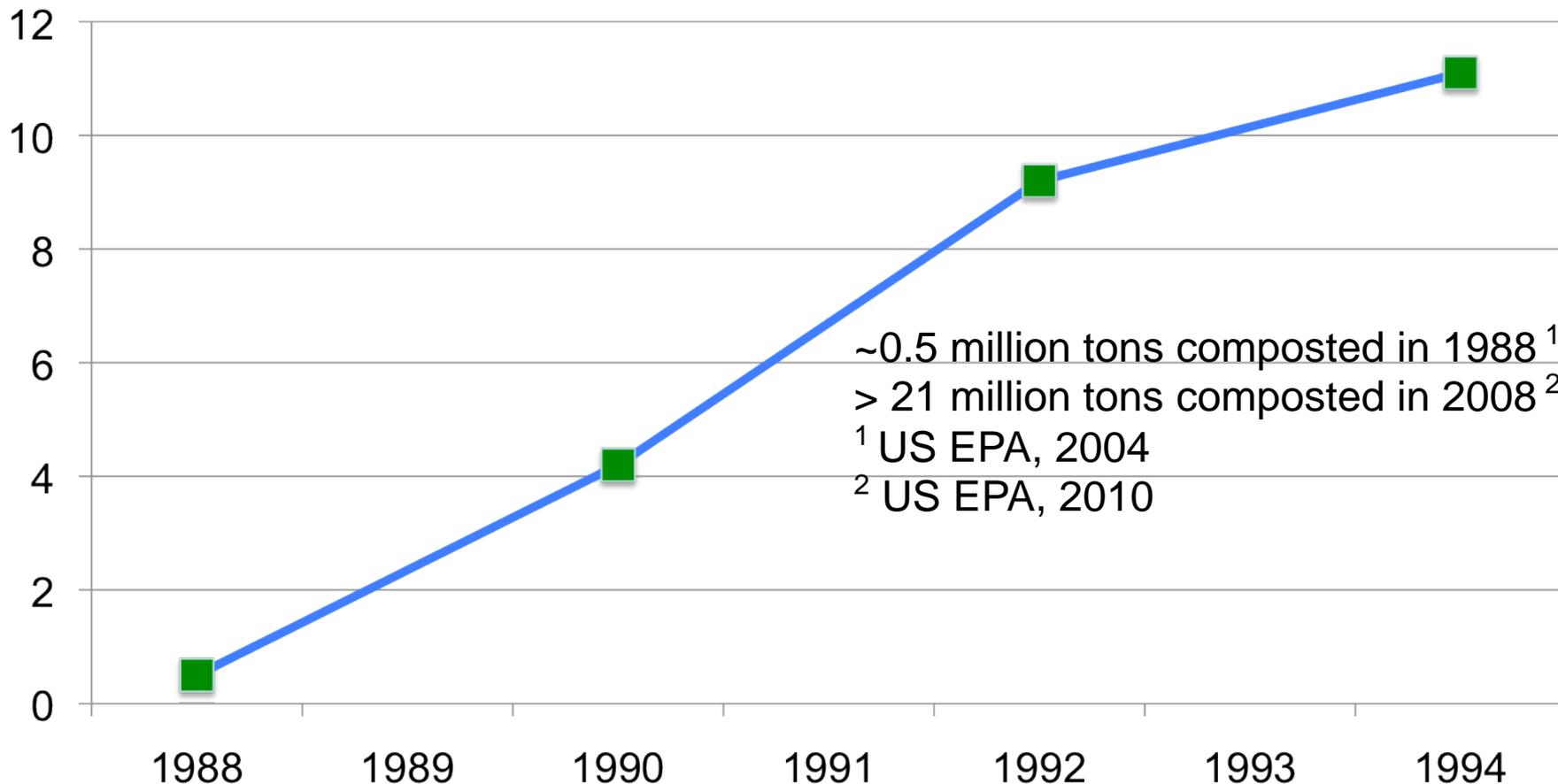
Effects of Yard Trimmings Disposal Bans





Increase in compost production

Tons composted (in millions)





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Quality Products Find Markets



Nurseries and retail outlets offer a large range of different compost products



Bagged products for homeowners and other customers



Bulk product for professionals



National Summary: Yard Trimmings bans are effective

- 438% increase in number of compost manufacturing facilities in the U.S. since inception of bans on disposal of yard trimmings in landfills
 - Businesses have developed to meet the demand
 - 4,100% increase in compost production
 - Markets have been developed to distribute product
 - USCC MDC and STA Program have assisted industry in developing markets and growing consumer confidence in the use of compost products. For more information, visit www.compostingcouncil.org
 - Jobs have been created to meet the demand for compost equipment, products, and technologies
 - Jobs have been created to market and distribute compost and mulch products
 - Education, advocacy and increasing consumer awareness will continue to increase the demand for compost, e.g., ICAW, partnerships
-

Increasing Public Awareness will continue to drive infrastructure development for composting and the demand for high quality compost products



Carrie Walsh, Sun Chips. 2010



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Consumers & Composting 2010 Survey





Creating Awareness

Advocacy/Education

Mass Media Partnerships



Carrie Walsh, Sun Chips, 2010





Yard Trimmings Bans are effective

Delaware study on YT ban impacts, 2004

- Average % recovered
 - MD: 91% (Res' l only), 80% (Res' l. And Com' l)
 - NJ: 75%
 - PA: 56%
 - Mid-Atlantic Avg: 70%
 - Delaware
 - Pre-ban: 34%
 - Post-ban estimate: 75%
-

Landfill bans under attack

Despite all of the gains during the past 20+ years, there have been several attempts to repeal landfill bans in the past few years

- Iowa – 2003
 - Michigan – 2008, 2009
 - Georgia – 2008, 2010
 - Missouri – 2009, 2010
 - Florida – 2010
-



Typical arguments are easy to refute

- Source of “green energy” and “energy independence”
 - Leaves and brush are high in lignin and breakdown VERY slowly in landfills
 - Grass breaks down before methane collection is in place
 - MI estimated that allowing YT into bioreactors would supply 0.02% of energy
 - USCC supports methane collection, but not from yard trimmings and other organics
 - Use of Anaerobic Digestion in combination with composting extracts energy and yields valuable compost products as well
-



Typical arguments are easy to refute

- Helps fight global warming
 - Aerobic composting of organics does not produce methane, anaerobic landfill conditions do
 - Since methane collection is imperfect (estimates range from 30 to 90%, EPA uses 75%) landfilling additional organics means **INCREASING** methane emissions
-



Typical arguments are easy to refute

- Landfilling saves money
 - Collection costs
 - Most landfills are much further from collection point than compost facilities
 - Longer hauling to delivery offsets gains from reduced costs of collection, if any
 - At least four times as many jobs created through composting than landfilling (EPA, 2001)
 - Positive economic impact
-



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USCC Support for Preserving Bans

- Work with local Composting Group or Composter (if no association)
 - Provide matching funds to hire lobbyist
 - Facilitate letter-writing campaigns
 - Work with local grass-roots environmental organizations
 - Provide “expert testimony” at hearings
 - Help “rally the troops”
 - Prevent the first state from falling
 - Resources section of the USCC website, www.compostingcouncil.org on “Preserving Landfill Bans”
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Preserving Landfill Bans

- **Keeping Organics Out of Landfills Position Statement**

The Bottom Line: The US Composting Council is firmly opposed to landfilling yard debris and other source-separated organics when viable alternatives are available. It is an inefficient way to use our organic feedstocks, wasting resources, reducing recycling, and increases greenhouse gas emissions.

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Case study: Florida

- Florida yard waste ban established in January 1992.
 - Approximately 264 yard waste processing facilities now in the state.
 - Majority of business grew from within the State.
 - State has provided funding for research and market development.
 - Tropical region that generates a large amount of vegetation.
 - Significant need for mulch, land amendments, fuel and alternate daily cover which has utilized most of what is produced.
 - 2010 Bill introduced and passed Republican legislature
 - Introduced near end of session, little time to get organized
 - Lobby and letter writing focused on Gov. Crist, who recently left Rep party
 - Letters from Governments, NGOs and Businesses across country and from Florida Grass-roots environmental organizations, such as Sierra Club and Florida Green
 - Governor Crist vetoed bill
 - “step backward in being a recycling leader”
 - “little assurance that the stated goals (energy independence, cost savings, GHG reduction) would be achieved”
-

Success so far

- Michigan and Missouri
 - Defeated in hearings, have not come to a vote
 - Georgia
 - Did not pass vote
 - Iowa and Florida
 - Passed by legislature, vetoed by Governors
-



Economic impacts

- 21,300,000 tons of yard trimmings recycled in 2008 (US EPA, 2010)
- Produces around 16,000,000 yards of compost
 - \$300,000,000+ in product sales (without multiplier effect)
 - Around 3,500 yard trimming composting facilities nationwide
 - 8500 fte' s
-



Case Study: Missouri

- Landfill ban passed in 1992
- Data collected in 2008 from 4 composters in the St. Louis area and the Kansas City area that have been composting since 1992:
 - 95 employees
 - Invested \$15,000,000 in capital equipment
 - Processed 11,600,000 cubic yards of yard waste
 - Marketed 3,500,000 cubic yards of compost and mulch products
- Conclusions: *Landfill ban led to the development of businesses to process yard trimmings; helped develop local markets for compost (through education by facility operators and the state); created jobs and; composting is now a viable industry in Missouri and the most successful form of recycling in the state.*

Source: Rebecca Geraty, St. Louis Composting



Economic impacts

- Strong local impacts
 - Most facilities collect from within 25-30 miles
 - Most compost used within 50-75 miles
 - Creates at least 4 times as many jobs as landfilling the same material
 - Supports jobs on the “front end” as service providers
 - Equipment dealers (turners, grinders, screens, loaders), haulers, testing and engineering services, etc.
 - Supports jobs on the “back end” as a product provider
 - Landscapers, contractors, stormwater management, turf managers, soil blenders, nurseries, horticulture and agricultural growers, etc
-



Lessons learned

- Yard Trimming bans work!
 - Residents can do the separation
 - Diverse markets and applications have been developed
 - Education and
 - Infrastructure typically develops as bans are implemented
 - Both private and public composters can be supported
 - Compost continues to achieve increased consumer acceptance and availability
-



Lessons learned

- Moving forward
 - Assure “level playing field” for private and public composters
 - Grant/loan access
 - Support market differentiation and maturation
 - Product Market development – bans without marketplace incentives or education are not as effective as they could be
 - Seal of Testing Assurance – builds market confidence
 - Build on infrastructure to recycle additional organics
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? Questions? ?

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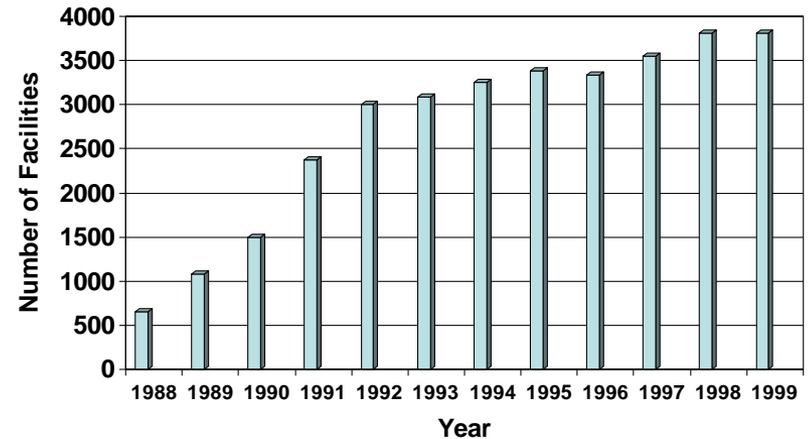
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National trends and growth of yard trimmings composting

- The national trend is for states to increase the diversion of yard trimmings and other organics from landfills to composting.
 - Consistent with efforts to achieve the nations recycling goals, there has been a significant increase in yard waste composting. Recovery via composting has increased from 2% in 1990 to 20%, with recovery of 62% of all yard trimmings (USEPA, 2006). During the same period, the number of composting facilities has increased from about 700 to more than 3,800.
- Allowing yard waste to be disposed of in landfills will negatively impact Missouri's recycling infrastructure and cause the loss of jobs.
- Allowing yard waste to be disposed of in landfills will reduce the state's diversion rate and reduce the amount of materials recycled.





Effects of Landfill bans on the disposal of yard trimmings

- Report by Delaware Solid Waste Authority, 2004 - Major findings:
 - Definition of “yard waste” varies by state
 - Scope and enforcement vary by state
 - Landfills in states with bans receive significantly less yard materials than those without
 - Bans increase on-site handling of yard debris
- For DE, disposal estimated to decrease from 234 lbs/cap to 76 lbs/cap (with about 30% of material reduced treated on-site)
- *Wasting and Recycling in the United States 2000*:
 - "Other bans on materials such as yard trimmings, paper, and containers were designed to encourage recycling of these materials. Indeed, they have been a very effective mechanism. The 22 states with yard debris disposal bans are home to 49% of the U.S. population and 74% of the country's yard trimmings composting sites." [footnote 53]
 - "In a 1996 survey of state recycling programs, the majority of state managers responding stated that landfill bans have been an effective tool for recycling; 19 checked that landfill bans have been effective in reducing landfilled waste; while 20 agreed they were useful in changing business habits." [footnote 54]



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Case Study: Michigan

- Quantity – Initial projections of total YW recovery post ban were substantially over estimated. Matt tells me that they thought they were going to get 30% of the waste stream coming to composting facilities and instead they got [number to come later from matt] which is only [%]. We believe that source reduction was substantially underestimated and much of the difference is simply being left on the lawn.
 - Facility Marketplace – We don't believe there was a substantial increase in the number of facilities or the total amount processed by the private sector. However, there was substantial increase in the number of facilities and the associated throughput on the public sector side. Many of those facilities continue to operate today inspite of the tough municipal finance world.
 - Tip fees – In most states composting of yard waste will save money over landfilling. In Michigan this is often not the case because most municipalities in SE Michigan where most people live have an effective tipfee near \$12/ton. The ban made sure that this material didn't continue to be landfilled.
 - Product Market – Michigan did not sufficiently support the market side of this equation. Prices for finished material are still depressed and the understanding of the benefits of compost are not as widespread as they should be. So, I would say that bans without marketplace incentives or education are not as effective as they could be.
-



Lessons Learned

- Product Market – Michigan did not sufficiently support the market side of this equation. Prices for finished material are still depressed and the understanding of the benefits of compost are not as widespread as they should be. Bans without marketplace incentives or education are not as effective as they could be.
 - Lessons learned in Florida.
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 - Tropical region that generates a large amount of vegetation. Significant need for mulch, land amendments, fuel and alternate daily cover which has utilized most of what is produced. Difficult to compete with commercial fertilizer so as to break into compost market at cost needed to justify operating expenses. Hope this is changing as fuel prices increase, water quality standards increase and demand for organic foods increase.
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- **Florida Landfill Ban Preserved!**

Thanks to a successful letter-writing and lobbying campaign, Governor Crist vetoed HB 569/SB 1052, that would have repealed their long-standing ban on yard waste going to landfills. This document contains the veto letter, a press release, and copies of the 54 letters representing 67 organizations from 20 states and DC urging the Governor's veto.

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