

WHY COMPOSTING IS A TRIPLE WIN FOR STATES: ON BUDGET SAVINGS, SOIL HEALTH AND CLIMATE

**POLICYMAKERS ADVANCE ECONOMIC AND ENVIRONMENTAL GAINS
BY LEGISLATING THE EXPANSION OF COMPOST END MARKETS**

THE OPPORTUNITY

Over the last three years, food waste bans across the U.S. have driven a surge in organics collection. The country has seen a 49% increase in the number of households with access to food waste collections since 2021.¹ 10 states and seven major U.S. cities have organics bans or food scrap collection requirements in place² and innovative materials like food-contact compostable packaging that can capture food waste are becoming more widely accepted by composters.³ As these policies and material innovations proliferate, and as acceptance rates rise, more food waste is diverted from landfill and redirected towards valuable end-of-life outcomes, like compost. Demand for finished compost, however, has not kept pace with the growth in organics diversion, missing a valuable opportunity.⁴

At the same time, state policies promoting healthy soil have surged across the U.S. 27 states, representing 57% of the nation's farmland and 63% of its population, have now adopted soil health programs or policies.⁵ While the details of healthy soils policies vary, they all share the same goal: to improve the quality and health of our soil. These policies commonly focus on agriculture (organic, regenerative and conventional), land conservation and water quality—yet it's rare for soil-health policies to connect soil health to compost use.⁶ **Meeting the ambitious goals of these types of policies will require us to address soil health quickly and at scale, and compost can provide a win-win solution to achieve those goals. The growing focus of U.S. policy on soil health could be the catalyst to ignite demand for compost, while also building resilient and healthier communities.**

The increased production, purchase and application of compost creates opportunities to unlock economic benefits, develop food waste infrastructure and rebuild healthy soils in the U.S.

COMPOST OFFERS IMPORTANT ECONOMIC AND ENVIRONMENTAL BENEFITS

Today, nearly one third of all compost produced in the U.S. is sold to conventional and organic agriculture, making it the largest market by volume. Though agriculture dominates compost consumption by volume, landscaping remains the most popular market for composters, solidifying their roles as the two primary end markets.⁷ Sediment and erosion control, green roofs, sports turf and landfill closure are examples of emerging end markets.⁸ A growing number of jurisdictions require compost be added to new lawns and soils at new construction and urban development sites.^{9,10} A 2020 study found compost sequestered approximately 368,000 tons of CO₂-equivalent in soil, reflecting an economic benefit of reduced CO₂e valued at \$20 million.¹¹ **Whether the priority is water quality, infrastructure resilience, land conservation or sequestering carbon—compost offers a host of potential economic and environmental gains.**

U.S. federal and state agencies, including the Department of Interior, Department of Transportation (DOT), the National Park Service and the Department of Agriculture can boost compost production and application. By collaborating with these agencies, policymakers can create effective, cohesive policies that are aligned to broader strategic objectives and priorities.

A non-exhaustive list of compost use-cases and benefits:

APPLICATION & USE CASES 	ECONOMIC GAINS 	ENVIRONMENTAL GAINS 
1. Agriculture (conventional, organic and regenerative) 2. Construction and highway projects 3. Drought-prone regions 4. Green infrastructure, landscaping, park preservation and new builds	1. Lessen fertilizer needs; reduce operational expenses 2. Reduce long-term maintenance costs; extend lifespan of infrastructure^{12,13} 3. Reduce public safety concerns and costs (e.g., emergency and fire response) 4. Minimize irrigation costs	1. Improve water retention; promote vegetative growth; enhance soil nutrient content¹⁴ 2. Reduce soil erosion 3. Combat wildfires, mudslides and water scarcity; boost water retention of soils^{15,16} 4. Reduce storm water runoff and excess wastewater treatment plant flows¹⁷

WHAT ROLE CAN POLICYMAKERS PLAY IN BOOSTING COMPOST PRODUCTION?

States across the U.S. have implemented the following three strategies to save taxpayer dollars and boost compost production:

1. ADOPT FOOD WASTE BANS WITH A PLAN

Food waste bans have the potential to save significant taxpayer dollars on landfill and disposal fees. In 2022, Washington State passed HB1799, an organics management law that requires organics unsuitable for consumption to be diverted from landfill and sent to organics management facilities. [Section 1 of HB1799](#) provides nine different interventions to support effective organics diversion. In New York State, a cost-benefit analysis from the New York State Energy Research and Development Authority (NYSERDA) deemed that waste generators who divert food waste from landfill could

produce a net benefit equivalent of up to \$22 million per year, including a decrease in greenhouse gas emissions.¹⁸ To capitalize on this potential, bans should be paired with deliberate plans to prevent compliance gaps due to lack of education and infrastructure.

2. INCENTIVIZE WASTE GENERATORS TO BECOME CLOSED LOOP SYSTEMS

States like Connecticut ([CGS Sec. 22a-226e](#)) and New York ([Title 22: ENV Chapter 43-B, Article 27](#)) have policies that require large waste generators (i.e., businesses, retailers, brands, and institutional and university campuses) to recover, recycle and report their food waste.^{19,20} Layering tax credits and reimbursements on top of policy can encourage generators to collect and recover their food waste on-site. These incentives can go a step further by rewarding the application of compost made from food waste, encouraging a closed loop system.

3. ESTABLISH ORGANICS COLLECTION AND DROP-OFF PROGRAMS

To divert food waste, states must have appropriate and convenient infrastructure in place. Drop-off sites are relatively low-cost localized solutions²¹ and can serve as a starting point to gauge interest and participation before rolling out curbside programs that accept food waste. Collections programs that allow certified, food-contact compostable packaging can help increase the volume of food waste that's diverted from landfill.²² Research suggests that when organics collections programs are integrated into broader climate action plans, they are more likely to motivate higher participation rates.²³ Vermont's food waste ban ([Act 148](#)) is the longest standing policy of its kind in the U.S. Since the ban's inception, residents report a 23% increase in the amount of food waste they separate from their trash, with composting being the leading disposal method for that food waste (46%).²⁴ Even after a decade of implementation, compliance can remain challenging, especially for businesses.²⁵ As new policies are rolled out, [lessons can be learned](#) from Vermont on how to ease pain points and expedite adoption for residents and businesses alike.

WHAT ROLE CAN POLICYMAKERS PLAY IN BOOSTING COMPOST PROCUREMENT?

States across the U.S. have implemented the following three strategies to save taxpayer dollars and boost compost procurement:

1. ADOPT MODEL PROCUREMENT POLICIES

State policy can influence local municipalities to prioritize the purchase of finished compost over other soil amendment products, like synthetic fertilizer. This type of policy helps jurisdictions increase the demand for compost and promote

reliable end markets for compost manufacturers. [CA SB1383](#) and WA HB1799 ([Section 701](#)) are two waste management policies that include compost procurement requirements. In California, organizations like Agromin, San Pasqual Valley Soils and Zero Foodprint's Compost Connector are helping jurisdictions meet their procurement requirements and promote healthy soil practices across the state.²⁶ CalRecycle and the Washington State Department of Ecology have acknowledged the potential economic benefits of state policies CA SB1383 and WA HB1799, including job creation, reduced landfill expenses and cost savings on construction projects. The Natural Resources Defense Council (NRDC) and Environmental Law Institute (ELI) have also developed extensive [Model Compost Procurement Policy](#) which policymakers can use as a reference to get started.

2. INCENTIVIZE COMPOST APPLICATION

Just as policy can be used to incentivize food waste recycling, so too can it be used to encourage the purchase and application of compost. As one example, in 2024 the North Carolina General Assembly added compost to its list of tax-exempt farm purchases per [Section 1.4 SB582](#), joining the list of products including commercial fertilizer, lime and potting soil. Tax exemptions like this make finished compost a more accessible and practical product for farmers. Natural soil amendments like compost can reduce a farmer's reliance on synthetic fertilizers and pesticides, facilitating the transition to regenerative practices. These incentives don't have to stop with farmers; policies can provide tax exemptions to other buyers too, like landscapers and state DOTs. State and local policy can also encourage private sector procurement for low-impact development (i.e., practices that use/mimic natural processes)²⁷ in commercial and residential construction.

3. ESTABLISH EDUCATION & TECHNICAL SUPPORT

Compost is a natural, biological product, so the finished product can vary. This means that compost has a variety of beneficial applications, but there's no one-size-fits-all product or use-case. Grant funding can be used to educate buyers (i.e., municipalities, farmers, landscapers, etc.) about compost applications and its plethora of benefits. Technical support for compost application is important too, as it can stimulate demand and promote domestic compost production. [The US Composting Council state chapter network](#) has education, technical support and compost-quality standards to support

state and local policies that consider the quality and application of finished compost.

Compost is a valuable resource that can replenish our soils, generate economic benefits and contribute to climate change mitigation. Although quantifying the economic impact of policy takes time, **policy plays a critical role in diverting food waste from landfill and stimulating the production and application of finished compost.** For more information on how finished compost can be used to meet state soil health goals and stimulate economic gains, check out the resources below.

The Composting Consortium, managed by Closed Loop Partners' Center for the Circular Economy, is a multi-year collaboration across the entire compostable packaging value chain. Our testing and research identifies best practices that advance the recovery of food waste and compostable food packaging. For more information, visit [the Composting Consortium's homepage](#) or contact **Kate Krebs**, Director of External Affairs at Closed Loop Partners kkrebs@closedlooppartners.com to learn more.

ADDITIONAL RESOURCES FOR POLICYMAKERS:

1. Institute of Local Self Reliance (ILSR)'s [Healthy Soils and Compost Policy Guide](#) examines the relationship between healthy soils and compost in policy, and how policy can advance soil health, compost production and use.
2. [Achieving Zero Food Waste State Policy Toolkit: Developing End Markets for Compost](#). This toolkit is part of a larger report created by the Zero Food Waste Coalition.
3. US Composting Council's [Compost Use Applications Factsheets](#). These educational resources provide instructions for use and explain the ROI for various compost applications.

END NOTES

1. <https://www.biocycle.net/residential-food-waste-collection-access-in-u-s/>
2. <https://www.compostingcouncil.org/general/custom.asp?page=organicsbans>
3. <https://www.biocycle.net/residential-food-waste-collection-access-in-u-s/>
4. <https://compostfoundation.org/Return-on-Investment>
5. <https://nerdsforearth.com/state-healthy-soils-policy/>
6. Ibid.
7. <https://www.compostingcouncil.org/page/Report-on-Composting-Practices-in-the-US>
8. Craig Coker, Compost End Market Analysis
9. Composting Consortium Municipal Blueprint, to be released 2024
10. <https://sres.frec.vt.edu/>
11. This [World Bank Estimate](#) assumes 1 ton of CO₂ = \$61.50
12. <https://www.compostingcouncil.org/general/custom.asp?page=MaintenanceBenefits>
13. https://cdn.ymaws.com/www.compostingcouncil.org/resource/resmgr/documents/compost_use/Compost_Use_for_DOT.pdf
14. <https://zerofoodwastecoalition.org/section/developing-end-markets-for-compost/>
15. Craig Coker, Compost End Market Analysis
16. <https://www.soilsforsalmon.org/>
17. <https://wasteadvantagemag.com/nyserda-report-finds-diverting-food-scraps-from-landfills-could-produce-net-benefit-of-up-to-22-million-annually/>
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19. <https://policyfinder.refed.org/>
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24. Ibid.
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26. <https://www.healthysoil.org/sb1383>
27. https://19january2017snapshot.epa.gov/nps/urban-runoff-low-impact-development_.html