



Carbon Farming

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Sustainable Organics Recycling

Healthy Soils Taking the World's Stage

At the time of this writing, the Paris Agreement has been in effect for only a few days and the United States is on the cusp of elections to determine our political path for the next few years. Will a President-elect Trump – as the Climate-Denier-in-Chief – hold true to his pledge to rescind US participation? Or will likely victor, Hillary Clinton, shatter the glass ceiling and continue the march towards combatting climate change on a national level? In either case, California will be out in front, having re-upped our long-term commitment by securing the statutory validity of ARB's implementation of AB 32 policies beyond 2020, with SB 32, and with sequestration in soils having a key role in reversing largely unprecedented atmospheric carbon levels.

In conjunction with the Paris meetings, France has proposed a 0.4% Initiative, designed to set an incremental target for soil organic matter. "The aim of the Initiative is to demonstrate that agriculture, and agricultural soils in particular, can play a crucial role where food security and climate change are concerned. Based on robust scientific evidence, the Initiative therefore invites all partners to declare or to implement practical programs for carbon sequestration in soil and the types of farming methods used to promote it (e.g. agroecology, agroforestry, conservation agriculture, landscape management)." See <http://4p1000.org>.

Now, ten months after the end of the International Year of Soils, the Healthy Soils Initiative (HSI) framework has been established by CDFA, who has released the summary plan (<https://www.cdfa.ca.gov/oefi/healthysoils/>) (in coordination with Governor's Office, Air Resources Board, CalRecycle, Department of Conservation, Department of Pesti-

cide Regulation, Department of Water Resources, and the Water Boards), and will lead the process, directed through the Environmental Farming Act Science Advisory Panel (EFA SAP), whose membership has been expanded by SB 859, to promote Carbon Farming: "An Interagency Plan to Reduce Greenhouse Gases and Improve Drought Resiliency by Innovating Farm and Ranchland Practices".

In conjunction with this action plan, the EFASAP conducted the development of "Compost Application Rates for California Croplands and Rangelands for a CDFA Healthy Soils Incentives Program" (<https://www.cdfa.ca.gov/oefi/efasap/docs/CompostApplicationRateWhitePaper.pdf>), largely a scientific literature review, which is designed to provide the initial structure under which incentive funding for compost application will be distributed from a portion of the \$7.5 million budgeted for HSI. A key finding of this white paper illustrates the pressing need to increase focused research projects which can provide support for additional funding and more widespread acceptance and use of compost as a climate mitigation strategy: "For croplands, the subcommittee determined leaching of nitrogen (in the form of nitrate) from compost to ground water to be the environmental impact of greatest concern. Many participating growers in the CDFA Incentive Program may choose to reduce their synthetic nitrogen fertilizer applications as they gain experience with the nitrogen content in compost to minimize nitrates in surface and groundwater; however, no assumptions about such behaviors were made when developing compost application rates." Much research, education and technical support work is needed to firm up confidence that compost is a part of the solution – and not the problem – before California can lead the way forward to making our soils great again.

Compost is a part of the solution - and not the problem...

Climate Legislation Overview

Another landmark year for climate legislation has come to a close. Not only did the legislature provide statutory support for the ARB climate policy work begun under AB 32 – with the passage of SB 32 and SB 1383 – significant funding was secured in the related budget trailer bills (SB 859 & AB 1613) which constitute the 2016 Cap and Trade Expenditure Plan. Companion bill SB 970 (for SB 859) codified the Organics Grant Program at CalRecycle, carving out some funding for recyclable material manufacturing infrastructure projects or other related activities that reduce GHG emissions. Another companion bill AB 197 (for SB 32) altered the structure of the ARB, adding one member each to that board from each house of the legislature, among other requirements. With these new statutory policy drivers laying down the path for the diversion of organic materials from landfill, it will be done...we just need to figure out who will pay for it: ratepayers, taxpayers or consumers?

SB 32 lays the foundation and establishes ARB authority beyond 2020. SB 1383 sets the table by requiring CARB to approve and begin implementing the comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCPs) to achieve a reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. With the methane emission reduction goals, the following targets to reduce the landfill disposal of organics were adopted: (1) A 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020; (2) A

75% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025. CalRecycle will set forth the regulatory path to landfill diversion with formal regulations in 2018, well in advance of the statutory implementation deadlines. Like the other legislation noted here, there is little mention of whom or how this will be funded. The Cap and Trade funds are a nice start, but only a drop in the proverbial bucket.

The major missing piece of legislation – and one of the most important – is noted below. While we now have great policy drivers to move forward on reducing methane emissions (among other climate impact mitigation measures), the lack of significant infrastructure funding – estimated by CalRecycle at up to \$3 billion – remains the next big battle. AB 1063 was this year's model legislation; let's see what progress we can make next session.

[AB 1063 \(Williams\)](#)

This bill would have increased the solid waste tipping fee from \$1.40 per ton to \$4 per ton beginning January 1, 2017 until January 1, 2022, with CalRecycle required to use a minimum \$1.50 per ton to promote infrastructure development, which could develop up to \$30 million in grants and loans to develop composting facilities and other market incentive programs that promote the highest and best use of recovered materials. The bill would also establish a generator charge to augment the existing disposal fee which funds CalRecycle administrative costs. This bill has been held over until next year as negotiations continue among stakeholder groups.

Public Workshop on the 2030 Target AB 32 Scoping Plan Update: GHG Policy Scenarios, Natural & Working Lands, and Public Health Analysis

On November 7, ARB held a public meeting to discuss the development of AB 32 Scoping Plan elements related to Natural & Working Lands. The AB 32 Scoping Plan must be updated at least every 5 years, as per Executive Order B-30-15. It establishes midterm greenhouse gas (GHG) emissions reduction target of 40% below 1990 levels by 2030. This update of the AB 32 Scoping Plan will incorporate the 2030 greenhouse gas target which was codified with the passage of SB 32 this year.

Additionally, with the passage of AB 197, ARB is required to consider the social costs of GHG reductions, to follow existing AB 32 requirements—including considering cost-effectiveness and minimizing leakage—and to prioritize measures resulting in direct emission reductions. Natural & Working Lands have a significant role to play in climate change mitigation. ARB is currently undertaking an inventory and developing strategies to maximize GHG reductions by taking advantage of our natural and urban forests, croplands and soil carbon. However, the best case scenario only rolls out just 10,000 acres per year through 2030 for compost, crop cover, and no-till.

[SB 32 \(Pavley\)](#)

TOPIC: Requires the Air Resources Board (ARB) to approve statewide greenhouse gas (GHG) emissions limits equivalent to 40% below the 1990 level by 2030. The bill would also require CARB to prepare and submit to the Joint Legislative Budget Committee and appropriate policy committees a report relating to the greenhouse gas emissions reductions achieved toward those limits. This bill would become operative only if AB 197 of the 2015-16 Regular Session is enacted and becomes effective on or before January 1, 2017.

STATUS: Chaptered by Secretary of State on September 8. **SUPPORT**

[SB 859 \(Committee on Budget / Fiscal Review\)](#)

TOPIC: This bill provides statutory provisions associated with the \$900 million 2016 Cap and Trade Expenditure Plan. Of particular note, it: requires utilities to purchase 125 MW of power from biomass facilities that generate electricity from high hazard forest materials; establishes Healthy Soils Program in statute; expands membership of CDFA's Environmental Farming Science Advisory Panel to include members with specific agricultural and GHG reduction expertise, etc.

STATUS: Chaptered by Secretary of State on Sept. 14. **SUPPORT**

[AB 1811 \(Dodd\)](#)

TOPIC: This bill modifies the requirements for the inspection of organic input materials to remove annual inspection requirements, but also allows inspection of organic input materials at times other than during registration process.

STATUS: Chaptered by Secretary of State on Sept. 22. **SUPPORT**

[AB 2511 \(Levine\)](#)

TOPIC: Defines "biochar" as a material derived from thermochemical conversion of biomass in an oxygen-limited environment containing at least 60 percent carbon. It also adds biochar to the definition of "auxiliary and soil plant substances" by including it in the list of products intended to be used for influencing soils, plant growth, or crop or plant quality.

STATUS: Re-referred to Senate Appropriations. **SUPPORT**

[AB 1826 \(Stone\)](#)

TOPIC: This bill reduces overly complex and duplicative requirements of existing law for the distribution and sale of organic products.

STATUS: Chaptered by Secretary of State on Sept. 21. **SUPPORT**

The Three “F’s” of Getting the Job Done

It has not been easy and it has not been quick, but at least California has addressed climate change aggressively and transparently. The decade that separated two landmark laws, AB 32 (2006) and SB 32 (2016) has seen dramatic economic, political and climatic turmoil. An alarming drought and devastating fires hammered California as it clawed out of the recent recession and, while there remain sobering challenges on many fronts, our state has moved up the global GDP ranks to number 6. All the while advancing the most aggressive climate change policy in the nation and most of the world.

While historically viewed as the more sustainable method for soil enhancement, compost has now become a key player in our plan to arrest and even bend the alarming exponential GHG emission curve that signals existing and pending climate change.

Through a series of legislation that has complemented AB and SB 32, California has set an ambitious path towards cutting CO2 and other GHG gases like methane through organic materials recycling. To date we have goals set for a statewide recycling goal of 75% by 2020 (AB 341) commercial recycling mandates on organic waste (AB 1826), and a 75% reduction in organics disposal and a 20% food recovery goal to curtail short-lived climate pollutants by 2025 (SB 1383).

Now the other tough part – implementation. Despite these recycling mandates and goals, numerous factors

impede – and in some cases reverse – progress. Down markets in China and elsewhere, complex – at times conflicting – regulatory requirements, and mixed funding messages hamper our efforts and put our grand plans at risk. To enable the local governments and impacted industries to get the job done, we need urgent and sustained action on three fronts: Foster, fix and fund.

We all need to **FOSTER** a new consciousness that embraces the new norm of water scarcity, extreme weather changes, and strained resources. By reducing our excessive consumption, reusing and recycling our resources, and restoring our soils and damaged ecosystems we can slow the change and enhance our resilience. There will continue to be a need to create extensive new markets for compost and other recycled organics material.

We need to **FIX** outdated and conflicting regulatory impediments to achieving our goals.

We need to **FUND** this transformation with both public and private sector investments that place value on the environmental and societal benefits of enhancing this healthier and more sustainable economic model.

The California Compost Coalition has long recognized that compost plays an integral role in Governor Brown’s Five Pillars to achieving our 40% GHG reduction goal by 2030.

We will need to up our game in 2017 and beyond to ensure that this unique opportunity is not squandered.

Waste Discharge Requirements for Composting Facilities

As of November 1, only 49 facilities have reportedly provided notice to their regional Board.

The State Water Resources Control Board (SWRCB) has concluded its efforts to establish statewide regulations for composting facilities. The SWRCB officially released final language on August 31, 2015, which can be found on the Board’s [composting website](#).

Existing composting operations, except those with individual WDRs, general WDRs, or conditional waivers of WDRs are required to seek coverage under this General Order by submitting a complete Notice of Intent (NOI), and a Technical Report with information requested in the General Order. The NOI, Technical Report must be submitted by August, 4, 2016 and shall include a proposed schedule for full compliance which must be as short as practicable but may not exceed 6 years from the date of the NOI.

Direct Land Application

Direct land application (DLA) of green waste and other organic materials continues to limit the available feedstock for composting operations, while enabling the spread of pathogens, invasive pests, and physical contamination that could be reduced with proper processing and composting. In many areas of the state, particularly south of the Tehachapi Mountains, the lack of composting infrastructure has been perpetuated by this diversion of feedstocks to the low-cost DLA option.

Throughout the last several years of CalRecycle and Water Board regulatory development, CCC and other stakeholders have advocated against unregulated DLA and succeeded in spurring action by those departments – in conjunction with the Department of Food and Agriculture – who continue to take steps toward limiting this poor management practice and its environmental impacts, which also included a CalRecycle-funded study (<http://www.calrecycle.ca.gov/Publications/Detail.aspx?PublicationID=1531>) identifying impacts on air emissions, additional to those already mentioned above.

This year, the California Conference of Directors of Environmental Health (CCDEH) has adopted a position to coordinate with their Regional Water Boards and Agriculture Commissioners in an effort to enhance compliance and enforcement of new regulations developed by CalRecycle which took effect at the beginning of 2016. Furthermore, CalRecycle is continuing work on regulations pursuant to AB 901, which will seek to have processors report the locations of DLA sites, aiding in the identification of non-compliant operations.

AB 901 Regulations

CalRecycle will hold another round of workshops in Sacramento and Southern California in December. Draft regulations are available for review where land application tons will need to be reported. Waste, recycling, and compost facilities, as well as exporters, brokers, and transporters of recyclables or compost will be required to submit information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state.

The California Compost Coalition

is a registered Lobbying Coalition with the Fair Political Practices Commission (FPPC), created in 2002 by a group of compost operators in response to demands for increased recycling of organic materials & production of clean compost, bioenergy, renewable natural gas, and biochar.

CCC Members

Agromin
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Burrtec Waste Industries
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Cold Canyon Compost
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CCC Members News

California Certified Organic Farmers (CCOF)

CCOF has been involved in organic compost standards with commercial composters for decades. Back in the 1990s, CRRRC composters teamed up with CCOF and *Amigo Bob* on the board of the California Compost Quality Council (CCQC) to develop voluntary standards. Working with OMRI and CCOF, organic composting standards were developed with applications by Upper Valley Recycling and Sonoma Compost. These CCQC standards went on to be the basis for further OMRI standards and CDFA labeling.

Moving forward, the Healthy Soils Initiative is an opportunity to learn from and build upon the long-established soil-building practices of organic agriculture. For decades, researchers have studied the net environmental and production benefits of organic farming practices. Now, with an increased awareness of the impacts of climate change, researchers are also evaluating key organic farming practices - like the use of compost - to better understand how organic farms reduce carbon in the atmosphere.

The use of compost is a fundamental part of organic crop production. It increases organic matter, nutrients, and microorganisms to build long-term soil health. While other forms of production rely on synthetic materials to control disease and feed plants, organic farmers rely on the multi-faceted benefits of compost to suppress soil-borne diseases, recycle nutrients, prevent erosion, and improve soil water holding capacity.

The opportunity to increase support for organic agriculture through the Healthy Soils Initiative has come at a critical time.

Researchers are predicting that the impact of climate change on irrigation water availability will result in decrease in yields for all crops. Additionally, farmers must battle new pest problems and overcome more unpredictable weather patterns like unusual chilling hours necessary for some crops.

Moreover, California produces the most organic crops in the nation with organic farm sales at \$2.4 billion in 2015. Yet certified organic acreage hovers around 3% of the state's agricultural land, and only about 3% of the state's farms are certified organic. Therefore, more support for existing and new organic farmers

will help support domestic organic production to meet the tremendous demand for organic ingredients while also advancing state and national climate goals.

The recently enacted California Organic Food and Farming Act (COFFA) could also help lay the groundwork for increased support for organic practices and the use of compost in California.

CCOF sponsored and Assembly Member Mark Stone (D-Monterey Bay) authored COFFA to reduce outdated paperwork and fees for the more than 2,500 organic farms, and to increase support for organic agriculture through the CA Department of Food & Agriculture (CDFA) and the CA Organic Products Advisory Committee (COPAC).

Specifically, COFFA allows the Secretary of CDFA and COPAC to support organic agriculture through education, outreach, and other programs. CDFA, in partnership with the organic experts that serve on COPAC, have the opportunity to coordinate with other stakeholders to identify how the Healthy Soils Initiative can build upon the principals of organic agriculture using compost products.



CCOF is a nonprofit organization founded in 1973 that advances organic agriculture for a healthy world through organic certification, education, advocacy, and promotion. CCOF is based in Santa Cruz, CA, and represents more than 3,000 certified organic members in 42 states and three countries.