End Fertilizer Pollution
Reverse Habitat Loss
Rebuild Natural Infrastructure
Revitalize Rivers
End Fertilizer Pollution

Reverse Habitat Loss

Reward landowners who generate environmental benefits.

Rebuild Natural Infrastructure

Revitalize Rivers
Why Fertilizer?
Satellite Photo of Lake Erie Algal Bloom
WARNINGS

Don't drink water
Don't let children bathe
Boiling water increases toxins
Great food. Low prices.

Water is currently unavailable at this location.
Dead Zone

Extent of 2008 oxygen-deprived area in the Gulf of Mexico

Oxygen content in water, milligrams per liter

0 1 2 3 4 5 6 and above

Source: National Oceanic and Atmospheric Administration Satellite and Information Service
6% of all US GHG emissions = \( N_2O \)

75% of all US \( N_2O \) emissions come from agricultural soil management
Fertilizer optimization
Cover crops
No till

_________________________

Healthier environment
Increased farm productivity
The Right Corporate Partner

Walmart

Save money. Live better.

Grocery Market Share
$ grocery sales in billions

Walmart Stores $274.5

Ahold USA $25.8
Publix $27.5
Safeway $37.5
Target $72
Kroger $86.8
Whole Foods $11.3

http://www.progressivegrocer.com/inprint/article/id5809/the_super_50/
Walmart's Supply Chain GHG Goal

Walmart Announces Goal to Eliminate 20 Million Metric Tons of Greenhouse Gas Emissions from Global Supply Chain

Collaboration with suppliers and environmental experts leads to development, measurement and independent assessment of carbon reductions

BENTONVILLE, Ark., Feb. 25, 2010 – Walmart today announced a goal to eliminate 20 million metric tons of greenhouse gas (GHG) emissions from its global supply chain by the end of 2015. This represents one and a half times the company’s estimated global carbon footprint growth over the next five years and is the equivalent of taking more than 3.8 million cars off the road for a year.

“Energy efficiency and carbon reduction are central issues in the world today,” said Mike Duke, Walmart president and CEO. “We’ve been working to make a difference in these areas, both in our own footprint and our supply chain. We know that we have an opportunity to do more and the capacity to do more.”

The footprint of Walmart's global supply chain is many times larger than its operational footprint and represents a more impactful opportunity to reduce emissions.

“Like everything we do at Walmart, this commitment ends up coming down to our customers,” Duke added. “Reducing carbon in the life cycle of our products will often mean reducing energy use. That will mean greater efficiency and, with the rising cost of energy, lower costs, making our business stronger and more competitive. And, as we help our suppliers reduce their energy use, costs and carbon footprint, we’ll be helping our customers do the same thing.”
Walmart’s Fertilizer Plans

29 Walmart Buyers

10 Product Categories
- Bakery / Baking
- Beer
- Beverage
- Bread
- Cookies / Crackers
- Dairy
- Deli
- Frozen
- Pork
- Condiments

15 Suppliers / ~30% of food & beverage sales

8 Crop Categories
- Corn
- Wheat
- Barley
- Soybeans
- Oats
- Potatoes
- Sugar Beets
- Oranges
Supplier Plans Cover 22 States and 6 Provinces
Working Across the Supply Chain

Retailers
- Walmart

Food Companies
- Murphy-Brown
- Coca-Cola
- General Mills
- Pepperidge Farm

Grain Aggregators
- Confidential
- Confidential
- Confidential

Ag/Info Services
- Confidential
- United Suppliers, Inc.
- Confidential

Farmers
- North Carolina
- Virginia
- Illinois
- Ohio
- Illinois
- TBD

Crops
- Corn
- Soybeans
- Wheat
Projected Impact
Acres Committed and Potential GHG Savings
Projected Impact
Acres Committed and Potential GHG Savings

![Bar graph showing the total crop acres engaged (millions) from 2013 to 2020. The graph indicates a gradual increase in acres committed and potential GHG savings over the years, with a significant jump in 2020.]
Projected Impact
Acres Committed and Potential GHG Savings

- Total Crop Acres Engaged (millions)
- Bar Graph showing commitment between Farmer Networks and Walmart Plans & CEO Commitments.
Projected Impact
Acres Committed and Potential GHG Savings

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Crop Acres Engaged (millions)</th>
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<tbody>
<tr>
<td>2013</td>
<td>0</td>
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<tr>
<td>2014</td>
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<td>2020</td>
<td>25</td>
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</table>

- **Farmer Networks**
- **Walmart Plans & CEO Commitments**
- **Ag Info/Service Providers**
Projected Impact
Acres Committed and Potential GHG Savings

Cumulative Greenhouse Gas Savings (million metric tons CO2e)

Total Crop Acres Engaged (millions)


- Farmer Networks
- Walmart Plans & CEO Commitments
- Ag Info/Service Providers
Projected Impact
Acres Committed and Potential GHG Savings

Total Crop Acres Engaged (millions)

Cumulative Greenhouse Gas Savings (million metric tons CO2e)

- Farmer Networks
- Walmart Plans & CEO Commitments
- Ag Info/Service Providers
- Cumulative GHG Savings

Questions and discussion