

## Advising Greentech companies to help maximize growth

### Study Reveals Surprising New Benefit from Trees



# It's not just about absorbing CO2





The average tree absorbs an average of 22 pounds of carbon dioxide per year.

But a mature tree can absorb more than 48 pounds of CO2 annually. The amount of carbon a tree can absorb is dependent on how a tree grows. Factors include:

- Location
- Growing conditions
- Water availability

- Sunlight
- Local climate
- Soil nutrients

# Now it's also about tree bark





According to a new study published in the journal *Nature*, microbes living in tree bark are adept at removing methane from the atmosphere.

- Till now, soil was the only identified "terrestrial sink" for methane.
- Now we've found that tree bark may be equally as effective.
- That's welcome news given that human efforts to reduce greenhouse gases are going as well as hoped.



Consummated at COP 26 in 2021, the Global Methane Pledge aims to cut methane emissions 30% by 2030.

# Methane – the often overlooked greenhouse gas



- Carbon gets most of the attention and for good reason.
- But since pre-industrial times, methane is responsible for about 30% of global warming.
- The issue: methane's warming effect is much greater.
  - Over a 100-year period, methane has 28 times the global warming potential of CO2.
  - Over a 20-year period, methane is 84 times more potent.
- The good news: methane dissipates much faster than CO2.
  - Methane stays in the atmosphere for about 12 years.
  - Carbon dioxide can stay in the atmosphere for 300 1,000 years.
- The bad news: methane emissions are rising faster than at any time since records began in the 1908s.

#### Earth's Land Surface -45% Pangelands Jose Forests - Covered by Covered by

Fun fact: A tree shape analysis showed that if all the tree bark on all the trees in the world were laid out flat – the area would equal the earth's land surface.

## But not all tree bark is created equal



- Methane absorption was found to be strongest in tropical forests because the microbes thrive in warm wet conditions.
- Height also matters.
  - At soil level trees actually emit small amounts of methane.
  - From about 6 feet up things reverse and the bark consumes methane.
- The new finding means trees are 10% more beneficial to the climate than previously thought.





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## Unbiased and Unfiltered

- An honest assessment of the climate change effort.
- I cover what's working but more important the issues/roadblocks that the industry would prefer to ignore.
- A must-read for anyone with a desire to understand what's really going on with renewable energy and climate change.



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