



MOOTRAL

THOMAS HAFNER, CEO, MOOTRAL

NOVEMBER 28, 2018

CALIFORNIA DAIRY SUSTAINABILITY SUMMIT

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**FEED ADDITIVES: CAN THEY REDUCE METHANE AND
IMPROVE YOUR BOTTOM LINE?**

YES ON BOTH COUNTS...

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CLIMATE CHANGE?

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**CLIMATE CHANGE IS NOT ONLY REAL,
IT IS HAVING AN UNPRECEDENTED
DESTRUCTIVE EFFECT
QUICKER THAN WE IMAGINED.**

Right now in California...

The New York Times
**Wildfire Becomes Deadliest
in California History**

**California wildfires: refugee camp 'could
become a mud pit' as rain looms**

CNN World » U.S. | Africa | Americas | Asia | Australia | China | Europe | Middle East | UK International Edition +
**Smoke from the California wildfires is
visible across the country in New York
City**

We must drastically and rapidly reduce our global emissions to keep the temperature rise below 1.5 degrees Celsius because we are currently at a record high.

2018 IPCC report <http://www.ipcc.ch/report/sr15/>

Climate change: Warming gas concentrations at new record high

By Matt McGrath
Environment correspondent

🕒 22 November 2018 | 📄 699



ENVIRONMENT

Climate change impacts worse than expected, global report warns

The Intergovernmental Panel on Climate Change says the world is headed for painful problems sooner than expected, as emissions keep rising.

Climate change: Report warns of growing impact on US life

🕒 2 hours ago

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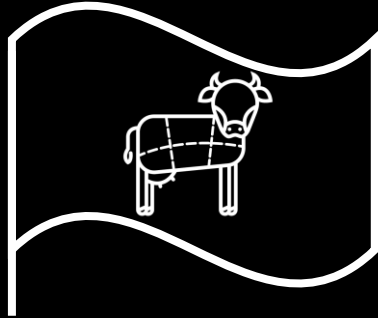
Science & Environment

Climate change: CO2 emissions rising for first time in four years

BUT HOW?...

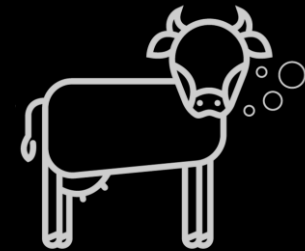
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THIS IS WHAT IS IN THE NEWS TODAY: COWS ARE A MAJOR PART OF THE PROBLEM...



If cattle were a nation it would be the
3rd largest GHG polluter
after China and the USA

<https://www.wri.org/blog/2016/04/sustainable-diets-what-you-need-know-12-charts>



Each cow emits
3-4 tons of CO₂e p.a.

(Using the current IPCC-GWP conversion factor

http://www.climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf)



Bill Gates ✓
@BillGates

Follow

If all the cattle in the world joined together to start their own country, they would be the third-largest emitter of greenhouse gases. Here are four more mind-blowing facts about climate change: b-gat.es/2PaHLK0

MOOTRAL AND DAIRY FARMS HAVE A CRUCIAL ROLE IN THE STEWARDSHIP OF THE ENVIRONMENT



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WE DARE TO DREAM BIG...



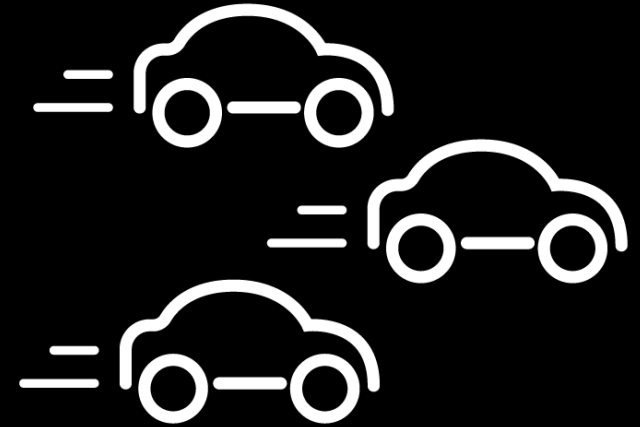
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WHAT IF WE MADE YOUR COWS PART OF THE SOLUTION?

All **1.5bn** cows on earth fed
a feed supplement reducing
methane by 30% equates to

a
1.5 Gigaton CO₂e p.a.
reduction

=



**Taking more than
a billion cars off
the road.**

EU latest figures

CO₂ emissions per car = 120g CO₂/km <https://www.theicct.org/publications/co2-emissions-new-passenger-cars-eu-car-manufacturers-performance-2017>

Average distance driven per year = 12,000 km <http://www.odyssee-mure.eu/publications/efficiency-by-sector/transport/distance-travelled-by-car.html>

Total emissions per car per year = 1.4 TCO₂/car/year.

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**GOVERNMENT IS DOING A LOT FOR OTHER SECTORS TO SUPPORT
REDUCTIONS IN CLIMATE CHANGE EMISSIONS.**

WHERE IS THE SUPPORT FOR FARMERS?



“Mootral wants to help make dairy farming sustainable for generations to come. This can only happen if farmers are empowered to tackle climate change”.



“Mootral is an investment in the welfare of livestock, the welfare of the people behind them and the welfare of our planet”.

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**AT MOOTRAL WE ARE CONVINCED THAT
EVERYBODY NEEDS TO BE PART OF THE SOLUTION**



FOOD INDUSTRY



CONSUMERS



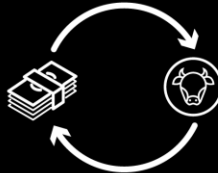
NON-FOOD INDUSTRY



GOVERNMENTS



FARMERS



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BUT OUR VISION IS NOTHING WITHOUT YOU...



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