

# Getting to Carbon Neutrality...and Beyond



## A Global Challenge

Climate Change can negatively impact:

- ▶ Humanity & Food Security
- ▶ Environmental Stability
- ▶ Agricultural Productivity

# 24%

of human-related greenhouse gas (GHG) emissions come from agriculture, forestry and other changes in land usage.

*Fifth Assessment Report of the Intergovernmental Panel on Climate Change*



## Modern Agriculture is Part of the Solution

Digital tools and other advancements enable farmers to mitigate the effects of climate change on agricultural productivity, while continuing to be a positive force in the fight against it.

### MONSANTO'S PORTFOLIO APPROACH FOR REACHING CARBON NEUTRALITY

Since announcing our pledge, we've reduced our carbon footprint by

**200K**  
Metric Tons



In terms of GHG emissions, that's like avoiding burning

**200M**  
Pounds of Coal

Thanks to our portfolio of operational improvements, breakthrough products and joint efforts, we expect that the rate of these

## GHG Emissions Reductions will Accelerate



We've reached 89% of our goal to reduce GHG emissions intensity from our crop protection operations by 22% by 2020.

Driving annual GHG reductions by:

- CONVERTING TO CLEANER FUELS**
- CONVERTING TO ENERGY-EFFICIENT TECHNOLOGY**
- IMPROVING TRANSPORTATION**

Working with our contract seed growers to encourage carbon-smart practices.

**REDUCING TILLAGE**

helps keep carbon in the soil and lessens GHG emissions from farm machinery.

**PLANTING COVER CROPS**

increases soil health and helps absorb carbon and store it in the soil.



Our product portfolio will play an important role in achieving our goal and helping to reduce the carbon footprint of agriculture.



**MICROBIALS**

and other products can help crops absorb and store more GHGs in the soil.



**DIGITAL TOOLS**

can help farmers use nitrogen more efficiently, reducing GHG emissions and water runoff.



Widespread adoption of climate-smart products and practices by commercial farmers can dramatically reduce agriculture's carbon footprint.

We currently have joint efforts in place with **6 leading retail partners** to drive adoption of climate-smart practices.

We expect the participation of more than **100 farmers**.

Beyond our own footprint, we're working to create awareness and around the world adoption of climate-smart farming practices.