



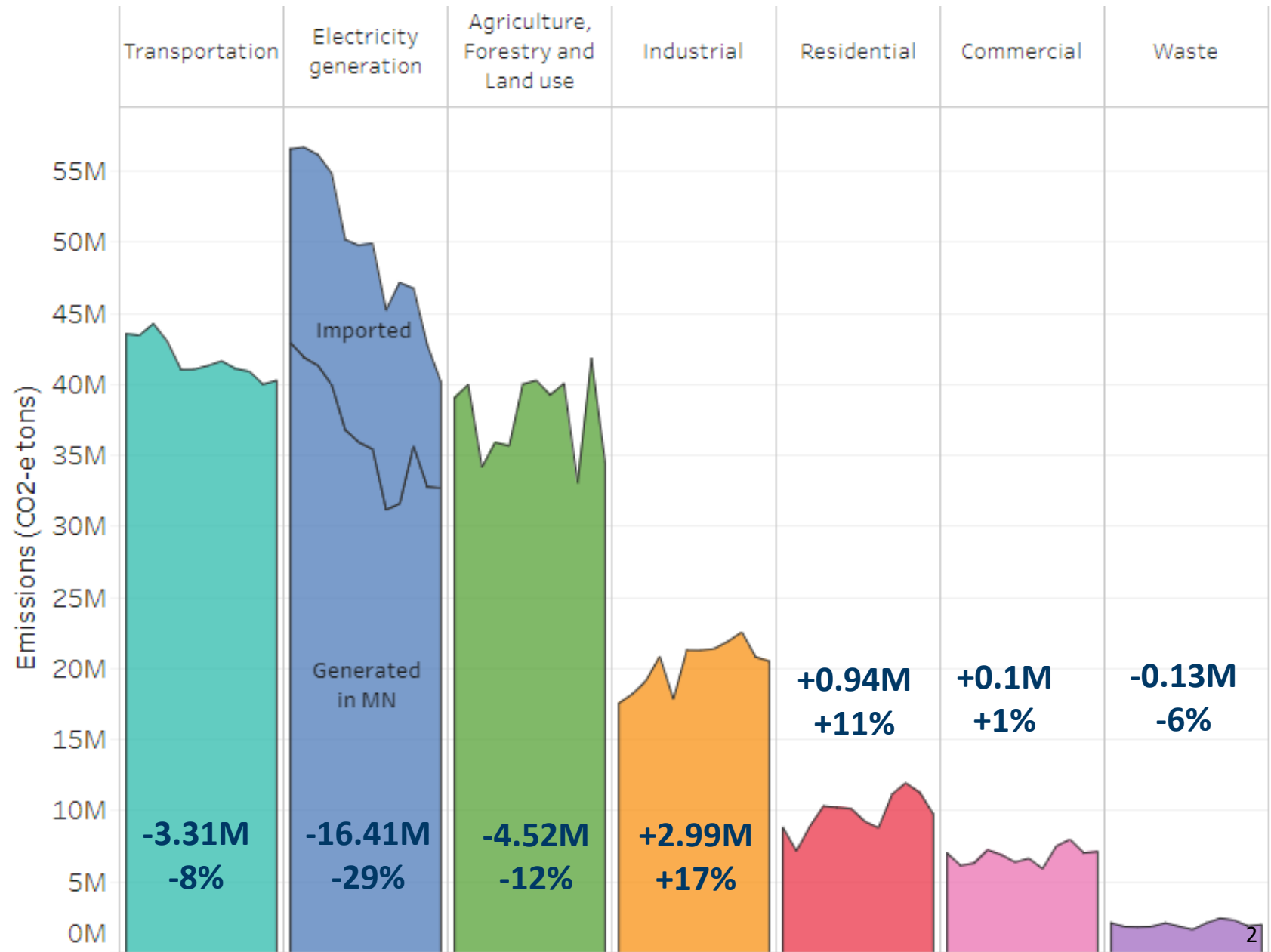
Greenhouse Gas Emissions and Reduction Potentials from Agriculture Sector

House Agriculture and Food Finance and Policy Division

Craig McDonnell | Assistant Commissioner for Air & Climate Policy

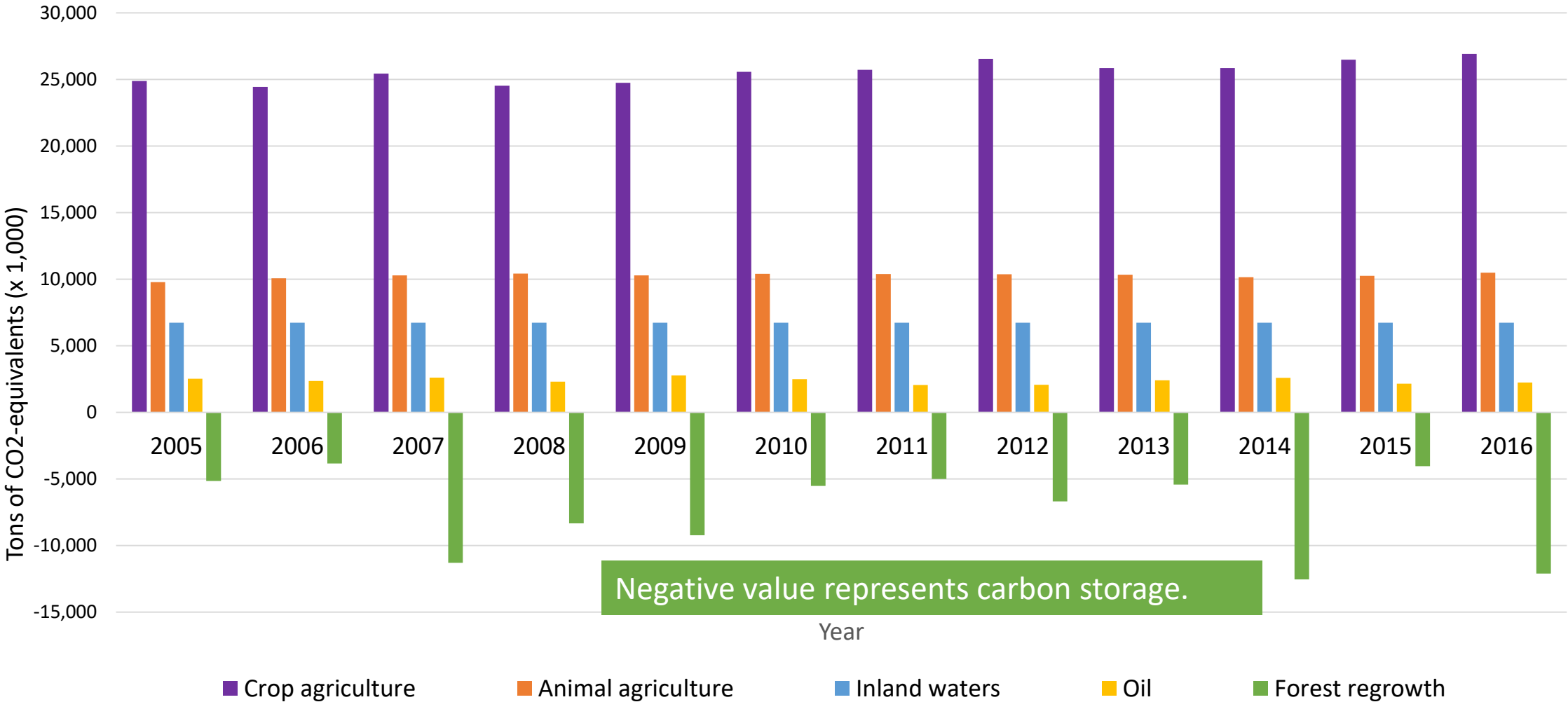
Frank Kohlasch | Climate Director

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Emission change by sector, 2005-2016

GHG emissions: Agriculture, forestry, and land use



Water quality + climate benefits

	Best Management Practice	Average GHG Ton Reduction Per Acre*
Cropland Idling or Related Conservation Land-Uses	Shelterbelts/hedges	↓ ↓ ↓
	Cropland idling in trees	↓ ↓ ↓
	Forested riparian buffers	↓ ↓ ↓
	Cropland idling in grass	↓ ↓ ↓
	Field borders and related	↓ ↓ ↓
	Riparian grass buffers	↓ ↓
	Constructed/restored wetlands**	↑

Legend	*=Average CO ₂ equivalent tons per acre per year. For full methodology, see report.	
	**=Preliminary results only	
	↓ ↓ ↓	GHG Reduction >1.5 tons/acre
	↓ ↓	GHG Reduction 0.5-1.5 tons/acre
	↓	GHG Reduction 0-0.5 tons/acre
↑	GHG Increase 0-0.7 tons/acre	

Water quality + climate benefits

	Best Management Practice	Average GHG Ton Reduction Per Acre*
Tillage and Cropping Changes	Cropland to hayland	↓ ↓
	Crop rotation w/ perennial forages	↓ ↓
	No-till, reduced tillage	↓
	Cover crops	↓
	Reduced tillage	↓
	No-till	↓
	Continuous corn to corn-soybean rotation	↑

Legend	*=Average CO ₂ equivalent tons per acre per year. For full methodology, see report.	
	**=Preliminary results only	
	↓ ↓ ↓	GHG Reduction >1.5 tons/acre
	↓ ↓	GHG Reduction 0.5-1.5 tons/acre
	↓	GHG Reduction 0-0.5 tons/acre
	↑	GHG Increase 0-0.7 tons/acre

Water quality + climate benefits

	Best Management Practice	Average GHG Ton Reduction Per Acre*
Nutrient Reduction Practices	Biochar**	↓ ↓
	Controlled release fertilizers**	↓
	Nitrification inhibitors**	↓
	Split fertilizer application**	↓
	15% fertilizer reduction**	↓
	Spring Nitrogen fertilizer application**	↑
	Surface Nitrogen fertilizer application**	↑

Legend	* = Average CO ₂ equivalent tons per acre per year. For full methodology, see report.	
	** = Preliminary results only	
	↓ ↓ ↓	GHG Reduction >1.5 tons/acre
	↓ ↓	GHG Reduction 0.5-1.5 tons/acre
	↓	GHG Reduction 0-0.5 tons/acre
	↑	GHG Increase 0-0.7 tons/acre



Nutrient Reductions

Soil Health Improvement

Cleaner Biofuels

Climate Protection