

## Green Deal targets for 2030 and agricultural production studies

February 2022 #EUGreenDeal

Various recent studies have analysed possible effects of the Farm to Fork and Biodiversity Strategies on agriculture in the European Union. The studies provide both the scientific community and policy makers with a valuable insight on the choice of policy tools to mitigate the risks. The studies therefore cover only a few elements of the strategies and must be treated with caution. The table below presents an overview of the elements taken into account by each study.

		COMMISSION JRC <sup>1</sup>	WAGENINGEN UNIVERSITY AND RESEARCH <sup>2</sup>	USDA <sup>3</sup>	KIEL UNIVERSITY <sup>4</sup>	IDDRI <sup>s</sup>
SQUEEN DEAL TARGETS (BY 2030)	High-diversity landscape features: 10% of UAA*	<b>V</b>	<b>~</b>	<b>✓</b>	<b>~</b>	<b>~</b>
	Nutrient losses: -50%, fertiliser: -20%	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>
	Pesticide use and risk: -50%	✔ (in value)	<b>~</b>	✔ (in value)	✔ (in value)	<b>~</b>
	Land under organic farming: 25% of UAA*	<b>~</b>	✓ (separate scenario)	×	<b>~</b>	<b>~</b>
	Antimicrobials: -50%	×	×	<b>~</b>	×	<b>~</b>
● FARM TO FORK ACTIONS AND SUP- PORTIVE POLICIES	Organic action plan	×	×	×	X	×
	Animal welfare legislation	X	×	×	X	×
	New genomic techniques	X	×	×	X	×
	Carbon farming initiative	X	×	×	X	×
	Biopesticides	X	×	×	X	×
	Feed additives	×	×	×	×	×
	Broadband target	X	×	×	×	×
	Integrated nutrient management plan	X	×	×	×	×
	EU import standards	×	×	<b>~</b>	×	×
	Halving food loss and waste by 2030	X	×	×	×	×
	Contingency plan	×	×	×	×	×
	Preventing food fraud	×	×	×	×	×
	EU code of conduct for responsible business and marketing practices	×	×	×	×	X
	Strengthening of farmers' position in the food supply chain	×	×	×	×	×
	Sustainable food procurement	×	×	×	×	X
	Promotion of sustainable food consumption	×	X	×	X	X
	Taxation to incentivise sustainable food consumption	×	X	×	X	X
	Food labelling to support healthy and sustainable choices	X	X	×	X	×
	Revised school scheme	×	X	×	X	×
FINANCIAL	New CAP	<b>V</b>	X	×	X	×
RESOURCES TO SUPPORT THE TRANSITION	New CAP budget 2021-2027	<b>~</b>	X	X	X	×
	Next Generation support to green technologies	<b>~</b>	×	×	X	×
DIET CHANGE	Shift to more sustainable diet	X	X	X	X	<b>✓</b>
NEW TECHNOLOGY UPTAKE		×	×	×	×	×
POLICY CHANGE IN TRADING PARTNERS (leakage issue)		×	×	<b>~</b>	×	<b>~</b>
POSITIVE EFFECT OF MORE BIODIVERSITY ON PRODUCTION		×	×	×	×	×
OCOST OF NO ACTION		X	×	X	X	X

1. Modelling environmental and climate ambition in the agricultural sector with the CAPRI model

2. Impact Assessment Study on EC 2030 Green Deal Targets for Sustainable Food Production

- 4. Economic and environmental impacts of the Green Deal on the agricultural economy
- 5. An agroecological Europe by 2050: What impact on land use, trade and global food security?

European Commission

✓ Included X partly included X not included

\*utilised agricultural area

EL FOOD SUPPLY CHAIN-

FARM-LEVEL

CONSUMER-LEVEL

<sup>3.</sup> Economic and food security impacts of agricultural input reduction under the European Union Green Deal's Farm to Fork and Biodiversity Strategies



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Over the past 10 years, the EU agricultural sector made significant steps towards a more sustainable future, without impacting its capacity to supply quality food:

- in 2019, pesticides sales declined by almost 30 000 tonnes (-7% compared to 2011),
- preenhouse gas emissions have been around 435 million tonnes of CO2-equivalent, a 25% decrease compared to 1990,
- the area under organic production reached 13.8 million ha in 2019, following an annual increase of 5.5 % over the period 2012-2019,
- > over the last ten years, the EU organic food and drink market doubled its size, worth around €41 billion in 2019,
- the gross value-added of the EU agricultural production reached 224 billion euro in 2019, a 19% increase compared to 2010,
- the EU agri-food products trade balance recorded an annual growth of almost 10% in average between 2010 and 2020, reaching 62 billion euro of net trade in 2020.

## In the meantime, climate change and biodiversity loss are already impacting EU agriculture:

- > 50% of land in the EU cultivated with crops dependent on pollinators faces a pollination deficit,
- > Droughts are costing an average of 9 billion euro a year in economic damage to agriculture, energy and public water supply,
- Antimicrobial resistance linked to excessive and inappropriate use in animal and human healthcare leads to an estimated 33,000 human deaths a year,
- Solution Solution

OVERVIEW OF THE MODELS USED IN EACH STUDY									
	COMMISSION JRC <sup>1</sup>	WAGENINGEN UNIVERSITY AND RESEARCH <sup>2</sup>	USDA <sup>3</sup>	KIEL UNIVERSITY <sup>4</sup>	IDDRI⁵				
MODEL USED	CAPRI	AGMEMOD + 25 case studies at farm level	GTAP-AEZ and IFSA	CAPRI	GlobAgri-AgT				
MODEL TYPE	Partial equilibrium model (agriculture separated)	Partial equilibrium model (agriculture separated)	General equilibrium model	Partial equilibrium model (agriculture separated)	Biomass balance model				
SECTORS COVERED	All agricultural sectors	Permanent and arable crops	All sectors	Animal products and arable crops	All agricultural sectors				
SECTORS NOT COVERED	Tomatoes	Animal products		Fruit and vegetables, wine					
GEOGRAPHICAL COVERAGE	EU + non-EU	EU, based on 7 case EU Member States	EU + non-EU	EU + non-EU	EU + non-EU				
SCENARIO DETAILS	3 (including baseline)	4 (separate and combined scenarios)	3	4	2				
<b>SCOPE</b>	4 targets combined	3 targets combined	4 targets combined	4 targets combined	5 targets combined				

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