



# Effects of sustainable crop protection policy on Dutch farm results and competitive position



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# Dutch government's crop protection policy to 2010:

- ▶ Reducing environmental impact of plant protection products

but:



- ▶ this should not affect the competitive position of Dutch agriculture and horticulture

# Evaluation of the policy document



PBL Netherlands Environmental  
Assessment Agency

- ▶ Ecological quality
  - ▶ Drinking water quality
  - ▶ Food safety
  - ▶ Safe working conditions
  - ▶ **Maintaining economic prospects**
- ➡ by Applied Plant Research (Wageningen UR)

# Economic evaluation of the policy document



1998  $\longleftrightarrow$  2010



and



2010  $\longleftrightarrow$  2010

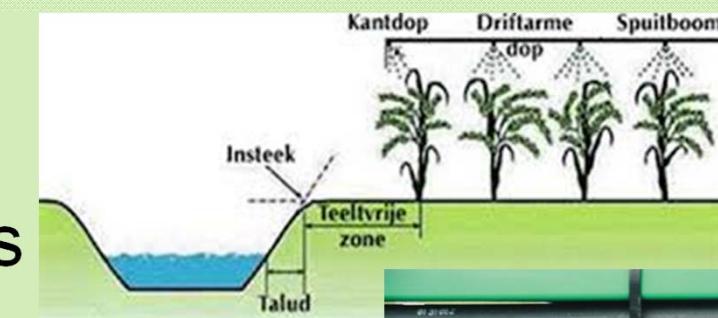


# Elements of crop protection policy

- ▶ authorisation policy  
crop protection products



- ▶ emission-reducing measures



- ▶ administrative obligations



- ▶ others

# Economic effects at level playing field

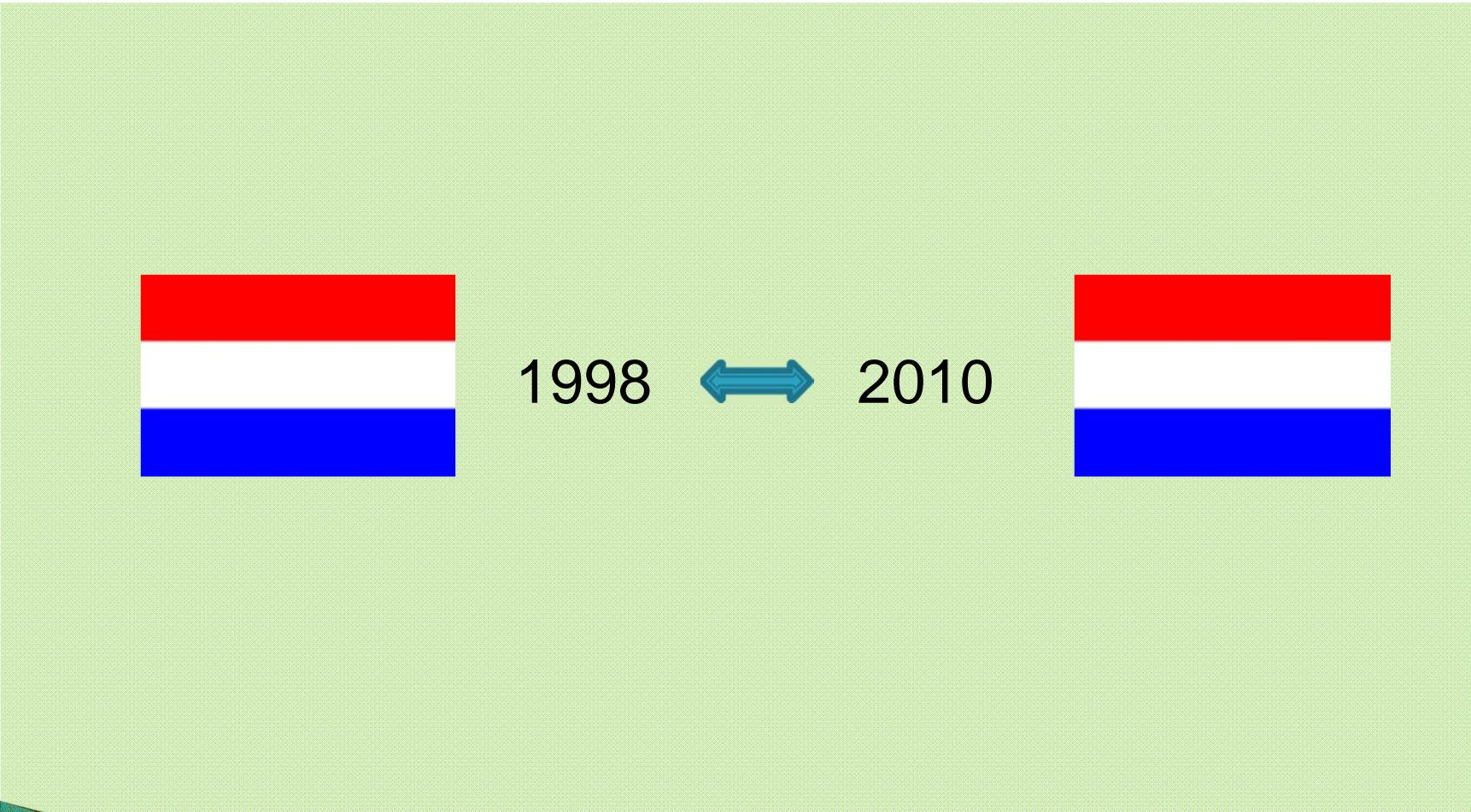


- ▶ costs per crop on farm level
- ▶ effect related to crop gross margin

# Representative crops per sector



# Economic effects at level playing field



# f.e. Winter wheat 1998 <-> 2010



(reference crop gross margin € 621 per ha)

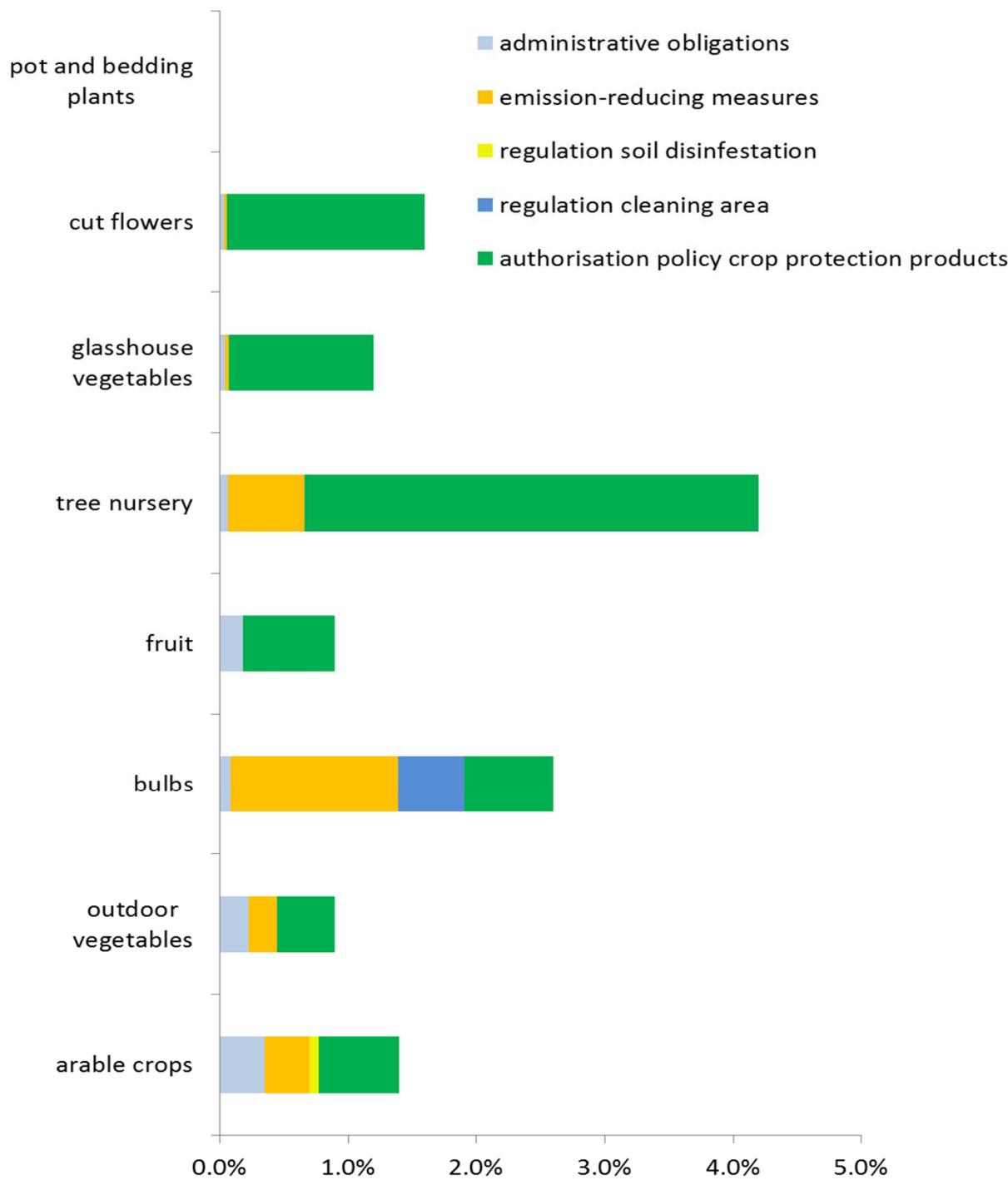
	€/ha	% crop gross margin
<b>authorisation policy</b>		
loss of isoproturon-sec	- € 50	- 8,1 %
<b>emission-reducing measures</b>		
cultivation free zone (0,25 m)	- € 4	- 0,6 %
driftreducing nozzles	- € 4	- 0,6 %
<b>administrative obligations</b>	- € 16	- 2,6 %
<b>total effect</b>	<b>- € 74</b>	<b>- 12 %</b>

# f.e. Strawberries 1998 <-> 2010



(reference crop gross margin € 15.640 per ha)

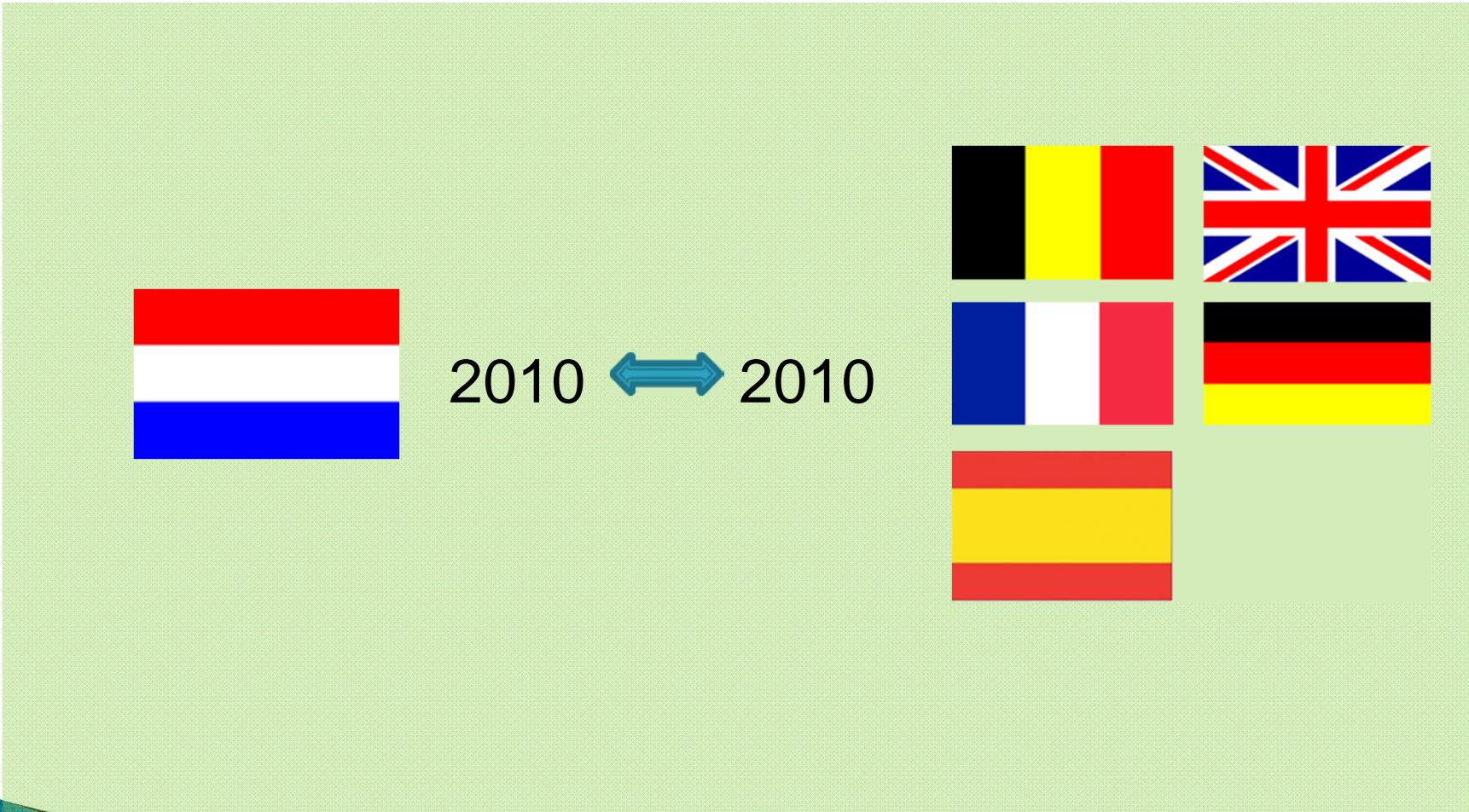
	€/ha	% crop gross margin
<b>authorisation policy</b>		
loss of tolylfluanide	- € 64	- 0,4 %
less broadspectrum insecticides	- € 997	- 6,4 %
<b>emission-reducing measures</b>		
cultivation free zone (1,5 m)	- € 50	- 0,3 %
driftreducing nozzles	- € 10	- 0,1 %
<b>administrative obligations</b>		
	- € 42	- 0,2 %
<b>total effect</b>	<b>- € 1.163</b>	<b>- 7 %</b>



**Effect Dutch  
crop protection policy  
1998 -> 2010**

**as % total farm costs**

# Economic effects at level playing field



f.e. Winter wheat



2010



(reference crop gross margin € 621 per ha)

	€/ha	% crop gross margin
<b>authorisation policy</b>		
narrower herbicide package	- € 50	- 8,1 %
<b>emission-reducing measures</b>	€ 0	0 %
<b>administrative obligations</b>	- € 2	- 0,3 %
<b>others</b>		
spraying license	- € 13	- 2,1 %
<b>total effect</b>	<b>- € 65</b>	<b>- 10 %</b>

f.e. Strawberries



2010



(reference crop gross margin € 15.640 per ha)

	€/ha	% crop gross margin
<b>authorisation policy</b>	€ 0	0 %
<b>emission-reducing measures</b>	€ 0	0 %
<b>administrative obligations</b>	- € 5	0 %
<b>others</b>		
spraying license	- € 37	- 0,2 %
<b>total effect</b>	<b>- €42</b>	<b>0 %</b>

# Effect crop protection policy as % Dutch crop gross margin



<->



sector	crops	NL-BE	NL-FR	NL-DE	NL-VK	NL-ES
arable crops	winter wheat	-10	-2	-8	-1	-
	seed potatoes	0	0	0	-1	-
	ware potatoes	-1	-1	0	-1	-
	seed onions	-1	-1	0	-2	-
	chicory	-7	-7	9	-1	-
	winter carrot	-1	-1	0	-1	-
outdoor vegetables	leek	-1	-1	0	0	-
	Brussels sprouts	-10	-1	0	-10	-
	iceberg lettuce	-1	-1	0	-1	-
	strawberries	-6	0	0	0	-
fruit	apple conventional	-5	-1	-3	-1	-
	apple organic	-1	-1	-18	-1	-
	red current	0	0	0	0	-
tree nursery	nursery trees	-1	-1	0	-1	-
	boxwood	0	-	0	-	-
glasshouse vegetables	lettuce	-4	-1	-	-	-4
	tomato	-	-	-	0	-3

# Conclusion: effect crop protection policy



1998

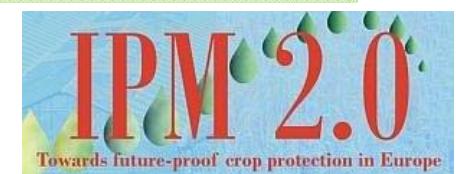


2010

- change in authorized product package
  - emission-reducing measures
  - administrative obligations
- 
- farm operating costs increases 0 - 4 % (varying per sector)
  - changes in authorized product package highest impact



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# Conclusion: Effect crop protection policy



- for most of the crops zero/nihil
- some crops disadvantage: predominantly by different authorized product ranges
- most competitive disadvantages: NL <-> BE

Thanks for your attention!



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PLANT & OMGEVING  
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Are there any questions?

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