

Setting targets and employing pesticide taxes

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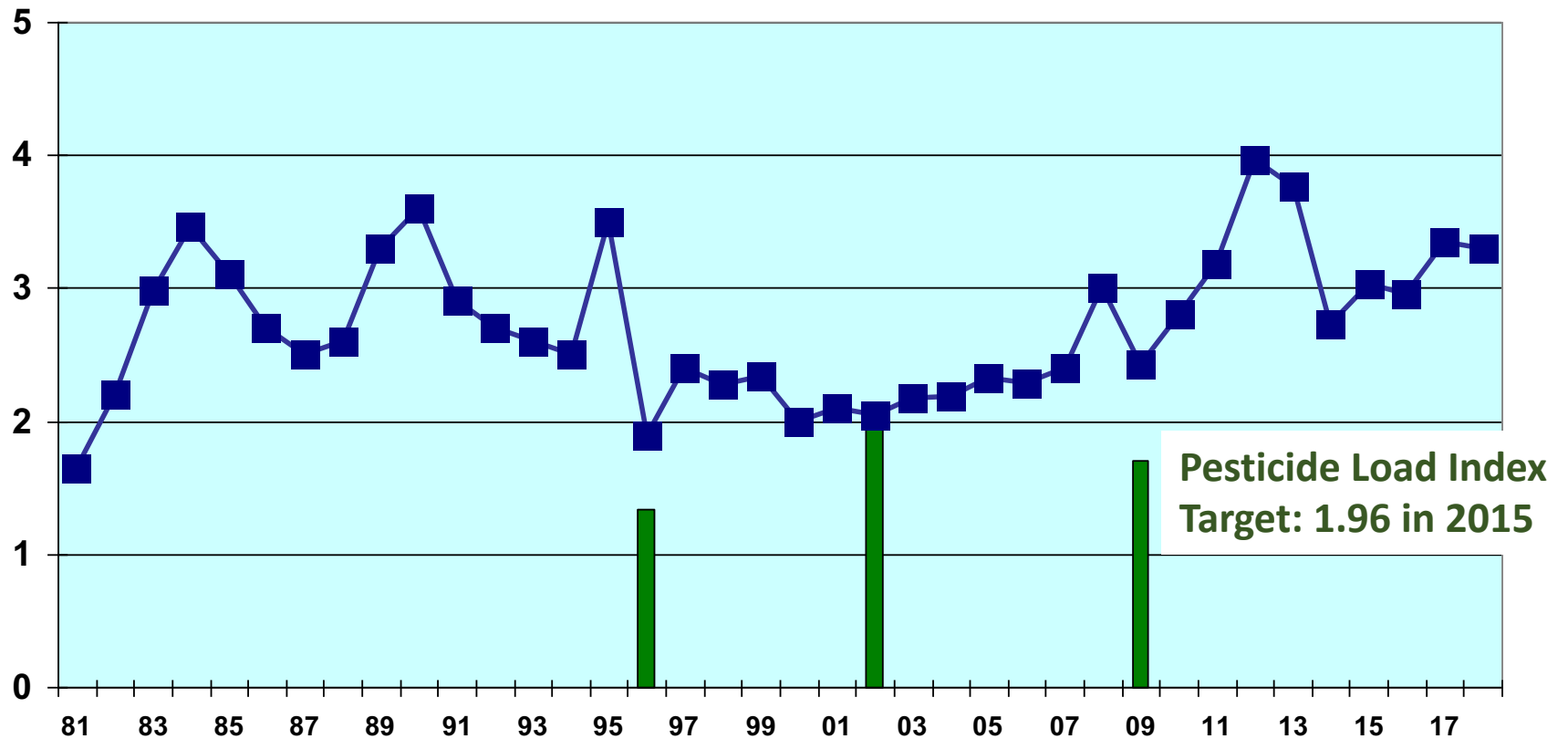
Reducing pesticide use has been on the political agenda since 1987

- Pesticide Action Plan I (1987-1996)
- Pesticide Action Plan II (2000-2004)
- Pesticide Plan 2004-2009
- Green Growth Plan (2010-2012)
- Pesticide Strategy 2013-2015
- Pesticide Strategy 2017-2021

Key events

- **1986: Treatment Frequency Index (TFI) introduced as an additional pesticide use indicator**
 - TFI expresses the average number of times the agricultural area can be treated (with standard doses) with the amount of pesticides sold per year (number of doses/year/ha)
- **1996: Pesticide taxes increased from 3% to 13-27%**
- **1997/98: Bichel Committee (all stakeholders represented) revised targets**
- **1998: Pesticide taxes increased to 33-54%**
- **2013: Pesticide Load introduced as a new indicator, pesticide tax system revised (linked to pesticide load) and uploading of information on pesticide use for each crop became mandatory (for further information see Kudsk et al, 2017 and Jørgensen et al, 2019)**

TFI 1981-2018



Pesticide Load Index
Target: 1.96 in 2015

Pesticide Load (L) for selected herbicides

Product	Load per kg/L product	Load per standard dose
Boxer	0.78	3.12
Stomp CS	1.56	2.50
MCPA	1.03	2.06
Starane 180S	0.64	0.51
Agil 100 EC	0.62	0.93
Focus Ultra	0.08	0.16
Atlantis OD	0.15	0.11
Monitor	3.72	0.08
Hussar OD	0.43	0.04
Express	1.52	0.02

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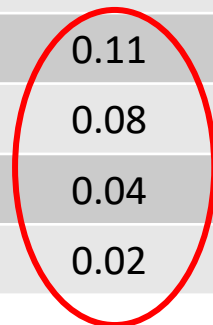


Pesticide Load (L) for selected herbicides

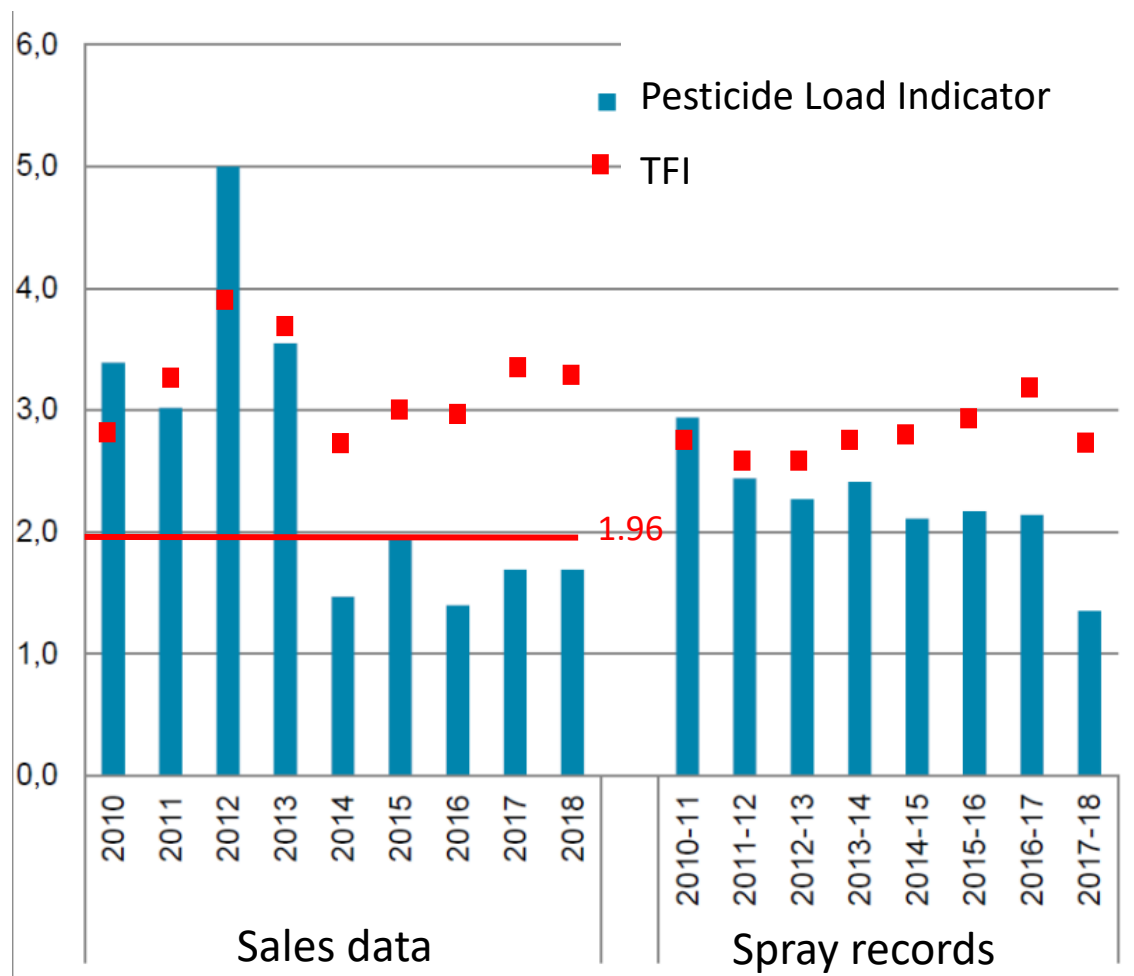
Product	Load per kg/L product	Load per standard dose
Boxer	0.78	3.12 ← Costs: 92 EUR (tax 72%)
Stomp CS	1.56	2.50
MCPA	1.03	2.06
Starane 180S	0.64	0.51
Agil 100 EC	0.62	0.93
Focus Ultra	0.08	0.16
Atlantis OD	0.15	0.11 ← Costs: 32 EUR (tax 5%)
Monitor	3.72	0.08
Hussar OD	0.43	0.04
Express	1.52	0.02

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Pesticide Load 2010-2017



Lessons learned

- Quantitative targets, perceived as realistic by farmers, can be an incentive - an unrealistic target can be a disincentive
- Pesticide taxation based on cost had minor impact on pesticide use, in contrast pesticide taxation based on pesticide load changed pesticide use pattern and reduced pesticide load
- Access to spray record data will provide more reliable data on pesticide use