

To FAIRWAY case study sites / MAPs

As part of Milestone M5.2 WP5 will like to inform the FAIRWAY case study sites / MAPs about our work with decision support tools (DSTs), and give you direct access to video presentations and descriptions of promising DSTs including other results.

Additionally, WP5 will like to take the opportunity to thanks all the FAIRWAY case study sites / MAPs, which have provided valuable information about DSTs applied in practice in your case study site, and to the case study sites which have participated in the testing and demonstration of DSTs. Your effort is highly appreciated.

Where to find video presentations and descriptions of promising DSTs?

In WP5 existing DSTs used by farmers, farm advisors and water managers in water, nutrient and pesticide management has been reviewed. The DSTs encompass paper-based guidelines, farm/level software and phone apps, and complex models intended for research studies. Based on structured searches of the scientific literature supplemented by information supplied by the project participants about the DSTs most widely used in their countries more than 150 DSTs were identified in total. 36 were selected for further investigation based on their national importance and relevance to the project aims (Table 1). In report D5.1 (<https://fairway-is.eu/index.php/documents/category/10-decision-support-tools?download=38>) you can find Information Sheets for each of the DSTs listed in Table 1. The Information Sheets summarise key information on tool capabilities. Additionally, videos with presentation of a subset of the DSTs can be found on the project cloud: <https://surfdrive.surf.nl/files/index.php/s/2KYFUGoDwhrYqrO?path=%2FShared%20documents%2FWP5%2FDST%20workshop%20170418%20Boxworth%20UK>

Following the survey and review process twelve DSTs have been tested at nine FAIRWAY case study sites across the EU. The participating case study sites all face different challenges; therefore the selected DSTs were a mixture of farm level tools which aimed to improve on-farm nutrient and/or pesticide management, and catchment/regional level DSTs which aimed to provide i) risk assessment of pesticide applications; ii) identify cost-effective measures to reduce nitrate and pesticide loads to water; and iii) identify cost-effective allocation, location and choice of nitrogen (N) mitigation measures in order to reduce N loads to water. The DSTs tested in the FAIRWAY case study sites are listed in Table 2.

Being able to exchange and test this number of DSTs across EU is unique and has provided valuable information and insights. The results of the testing can be found in report D5.2 (<https://fairway-is.eu/index.php/documents/category/10-decision-support-tools?download=52>). During the process, barriers to exchange between countries were identified. Additionally, information about the farmers and stakeholders 'needs' in term of functionality, use and access to decision support tools, including their attitude toward decision support tools, were collected. Videos with presentations of the findings of the testing in each of the nine FAIRWAY case study sites can be found on the project cloud: <https://surfdrive.surf.nl/files/index.php/s/2KYFUGoDwhrYqrO?path=%2FShared%20documents%2FWP5%2FDST%20workshop%20120319%20Roskilde%20Denmark>



FAIRWAY



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WP5 hope that you will find the material interesting, and that you can find inspiration in some of the DSTs. If you have any feedback for WP5 or questions regarding the material please contact the WP5-leader Rikke Krogshave Laursen (рила@seges.dk).

Table 1. Decision support tools selected for further investigation.

No.	Country	DST name	Nutrient tool	Pesticide tool	WQ indic.*	WQ**	Mitigation***
1	DE	Düngeplanung 1.6	Y		Y		
2	DE	ISIP	Y			Y	
3	DK	Mark Online	Y	Y	Y		
4	DK	Dyrkningsvejledninger	Y	Y			
5	DK	Plant Protection Online		Y			
6	DK	CTzoom/CTtools	Y			Y	
7	DK	BEST Kemi	Y			Y	
8	DK	TargetEconN	Y		Y		
9	FR	PHYTOPIXAL		Y	Y		
10	FR	SIRIS		Y			
11	IE	Teagasc NMP online	Y				
12	IE	FarmHedge		Y			
13	NL	ANCA	Y		Y		
14	NL	Adviesbasis CBGV	Y				
15	NL	Beregeningswijzer	Y				
16	NL	BedrijfsWaterWijzer (BWW)	Y			Y	
17	NL	Bodemconditiescore	Y	Y			
18	NL	NDICEA	Y				
19	NL	Environmental Yardstick		Y		Y	Y
20	NL	STONE	Y				
21	NO	Catchment-lake modelling network	Y			Y	Y
22	NO	Skitteplan	Y		Y		
23	NO	Agro-meteorological service	-	-			
24	SI	Načrtovanje gnojenja	Y				
25	SI	Smernice za strokovno gnojenje	Y				
26	SI	OECD/EUROSTAT N balance	Y		Y		
27	SI	GROWA-SI	Y			Y	
28	SI	State network of groundwater monitoring points	Y	Y		Y	
29	SI	FITO-INFO		Y			
30	UK	PLANET	Y		Y		
31	UK	FARMSCOPER	Y			Y	Y
32	UK	Check it out		Y			
33	UK	Sentinel Online		Y			
34	UK	Procheck		Y			
35	UK	SCIMAP	Y			Y	
36	UK	WaterAware		Y			

*Represents indicators of water quality such as inputs (use of fertiliser/pesticides), nutrient balance/surplus/efficiency.

**Water quality is explicitly represented (e.g. amount or risk of nitrate/pesticide leaching)

***Mitigation methods are specifically represented

Primary users/scale of DST

Farmers or advisors/field or farm scale (mostly farm nutrient/pesticide management tools)

Water quality manager or policy maker/catchment scale

Modellers or researchers



Table 2. DSTs selected for test and/or demonstration by the participating FAIRWAY case study sites.

No.	Case study site	DSTs selected for test and/or demonstration	Scale	Target N: Nitrate Pe: Pesticide
1	Island Tunø (DK)	A historical case study where testing of a DST is not relevant as the problem has been solved.		
2	Aalborg (DK)	Environmental Yardstick for Pesticides* (NL); SIRIS ** (FR); TargetEconN ** (DK)	On-farm use (*); catchment scale and regional scale (**)	Pe
3	Anglian Region (UK)	Environmental Yardstick for Pesticides (NL)	On-farm use	Pe
4	La Voulzie (FR)	SIRIS (FR)	Catchment scale	Pe
5	Lower Saxony (DE)	Mark Online (DK); NDICEA (NL)	On-farm use	N
6	Axios River (GR)	Not involved in Task. 5.2		
7	Derg catchment (IE)	SCIMAP** (UK) Phytopixal** (FR); Farmscoper* (UK)	On-farm use (*); catchment and re- gional scale (**)	Pe
8	Overijssel (NL)	Düngeplanung (DE)	On-farm use	N
9	Noord Brabant (NL)	Plant Protection Online (DK)	On-farm use	Pe
10	Vansjø (NO)	Not involved in Task. 5.2		
11	Baixo Mondego (PT)	MANNER-NPK (UK)	On-farm use	N
12	Arges-Videa (RO)	Not involved in Task. 5.2		
13	Dravsko Polje (SI)	ANCA (NL)	On-farm use	N

