



Shared Innovation Space for Sustainable Productivity of Grasslands in Europe

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Title Advice and Ranking of Grassland Tools

Responsible partner: Teagasc

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Objective of Task 5.1:

Rank and adapting the use of grassland tools and developing new grassland methods which can be used to improve grassland management.

Task-lead:

Teagasc in collaboration with GLZ, IDELE, APCA, LWK, UGOE, INRA, AWE, CAH, SLU, PULS, WIR, SV, AIA, LRC & CRAPDL

Introduction:

This work package focuses on identifying Grassland Tools in countries around Europe and developing networks between tool co-ordinators, agricultural extension agents and farmers around Europe. The purpose of these tools is to increase grass grown and utilisation across Europe and to achieve the objectives of Inno4Grass. In this work package; grassland management tools are identified, categorised and ranked as the most effective grassland tools to use for a grassland system. Stakeholders will receive advice and ranking of the most effective grassland management tools for use in grassland systems, which will ensure that industry members, agricultural advisors and farmers are all using the most effective tools in managing their grassland systems.

Table 1: Grassland Tools and Countries

List of grassland tools identified by teh consortium.

Country	Grassland Tool
1.Ireland	Spring rotation Planner
2.Ireland	Grass Wedge
3.Ireland	Grass budget
4.Ireland	GrassHopper
5.Ireland	Pasturebase Ireland
6.Ireland	Manual Plate meter
7.France	Pasture plan
8.Belgium	Herbometre
9.Belgium	Pasture calendar
10.Italy	webGRAS (potential forage quality)
11.Austria	Rotation planner
12.Austria	Grass Wedge
13.Austria	Grass budget (Stocking rate in continuous variable stocking)
14.Germany	Hinweisdienst Grünland
15.Germany	Grünlandreifepfung (regional sampling from grassland to help farmers if they want to determine the best point for harvest)
16.Germany	ISIP (timing of fertiliser application)
17.Germany	Grünland online
18.Germany	Wetterfax
19.Poland	Grassland renovation calculator

20.Sweden	Grazing Calendar
21.Sweden	Beteskalle (multilingual - 7 languages, AutoGrassMilk). A digital planning tool which calculates grazing costs and grass production
22.Sweden	Harvest prognosis for ley
23.Sweden	Slurry value calculator
24.Sweden	Grovfoderkalkylen (<i>Forage Calculation</i>) includes cost calculations of producing forage as ley, maize or cereal whole crop. The farmers' or advisors' figures are stored online.
25.Sweden	Räknehjälpen (<i>Help Figuring</i>) includes about 15 excel files for calculating separate issues, e.g. cost of transporting slurry or forage, demand of nitrogen to reach a given amount of crude protein, cost of different storage systems, cost of additives, cost of forage handling in the feeding system on farm level, prize model for ley or maize when selling between farms.
26.France	Patur'IN
27.France	Pâtur'Plan
28.France	Herb'Avenir
29.France	Herb'Valo
30.France	Herbe Book
31.France	Date N'Prairie
32.The Netherlands	Beweidingswijzer
33.The Netherlands	WeideKompas
34.The Netherlands	Grip op Gras
35.The Netherlands	Grass growth prediction
36.The Netherlands	Graasvisie
37.The Netherlands	Digitale graslandgebruikskalender
38.The Netherlands	Vers gras dashbard
39.Luxembourg / AutoGrassmilk	Beteskalle (multilingual - 7 languages)

Table 2: Functionality of the Grassland Tool: Tool User, Season, Enterprise, Web Based

Grassland Tool	Tool User	Season	Enterprise	Web Based
Spring rotation Planner	Farmer/advisor	Spring	Dairy/Sheep/Beef	Yes
Grass Wedge	Farmer/advisor	Summer/Autumn	Dairy/Sheep/Beef	Yes
Grass budget	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes

GrassHopper	Farmer/Advisor	All year	Dairy/Sheep/Beef	No
Pasturebase Ireland	Farmer/Advisor/ Res	All year	Dairy/Sheep/Beef	Yes
Manual Plate meter	Farmer/Advisor/ Res	All year	Dairy/Sheep/Beef	No
Pasture plan	farmer/advisor	all year	Dairy/Sheep/Beef	no
Herbometre	Farmer/advisor	All year	Dairy/beef	No
Pasture calendar	Farmer	All year	Dairy/beef	No
webGRAS (potential forage quality)	Farmer/advisor	First cut of meadows	Dairy	Yes
Rotation planner	Farmer/advisor	March-October	Dairy	No
Grass Wedge	Farmer/advisor	Grazing season	Dairy	No
Grass budget (Stocking rate in continuous variable stocking)	Farmer/advisor	March-October	Dairy	No
Hinweisdienst Grünland	Farmer	all year	all grassland farmers	no
Grünlandreifepfung (regional sampling from grassland to help farmers if they want to determine the best point for harvest)	Farmer/Advisor	Spring	all grassland farmers	published online/print media
ISIP (timing of fertiliser application)	farmer/ advisor	Spring	ISIP (Informationssystem Integrierte Pflanzenproduktion e.V.) provides different decision tools related to year (weather conditions) and site (soil conditions) for all kinds of agricultural production	yes
Grünland online	Farmer	all year	grassland farmers	yes
Wetterfax	Farmer/Advisor	all year	agricultural weather forecast and respective recommendations for farmers	no
webGRAS (potential forage quality)	Farmer/advisor	First cut of meadows	Dairy	German/Italian/Ladin
Grassland renovation calculator	Farmer/Advisor	All year	Dairy/Beef	Yes
Grazing Calendar	Farmer/Advisor	Grazing season	Dairy/Sheep/Beef	No

Beteskalle (multilingual - 7 languages, AutoGrassMilk). A digital planning tool which calculates grazing costs and grass production	Farmer/Advisor	Grazing season	Dairy	Yes
Harvest prognosis for ley	Farmer/Advisor	First harvest	Dairy/Sheep/Beef/Horses	Yes
Slurry value calculator	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes
Grovfoderkalkylen (<i>Forage Calculation</i>) includes cost calculations of producing forage as ley, maize or cereal whole crop. The farmers' or advisors' figures are stored online.	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes
Räknehjälpen (<i>Help Figuring</i>) includes about 15 excel files for calculating separate issues, e.g. cost of transporting slurry or forage, demand of nitrogen to reach a given amount of crude protein, cost of different storage systems, cost of additives, cost of forage handling in the feeding system on farm level, prize model for ley or maize when selling between farms.	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes
Patur'IN	Farmer/Advisor/Res	All year	Dairy/Beef	No
Pâtur'Plan	Farmer/Advisor	All year	Dairy/Beef	No
Herb'Avenir	Farmer/Advisor	All year	Dairy/Beef	No
Herb'Valo	Farmer/Advisor	All year	Dairy/Beef	No
Herbe Book	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes
Date N'Prairie	Farmer/Advisor	All year	Dairy/Sheep/Beef	Yes
Beweidingswijzer	Advisor	All year	Dairy	Yes
WeideKompas	Advisor	All year	Dairy	Yes
Grip op Gras	Farmer/advisor	All year	Dairy	Yes

Grass growth prediction	Advisor	All year	Dairy	Not yet
Graasvisie	Advisor	All year	Dairy	No
Digitale graslandgebruikskalendar	Farmer	All year	Dairy	No
Vers gras dashbard	Farmer/advisor	All year	Dairy	No
	Farmer/advisor		Dairy	
Beteskalle (multilingual - 7 languages)	Advisor	All year	Dairy	No

Grassland Tools - Categories:

- Grassland Hardware
- Budgeting
- Grassland Decision support
- Grass Quality
- Fertiliser
- Weather
- Grassland Renovation
- Feed costs
- Ecology



Table 3: Grassland hardware Category

Grazing Tool	Ranking (1-5)
Grass-Hopper (Ireland)	4
PastureBase (Ireland)	5
Herbometre (Belgium)	4
Patur'IN (France)	4
Pâtur'Plan (France)	5
Herb'Avenir (France)	4
Herbe Book (France)	4
Date N'Prairie (France)	3

Table 4: Grass Budgeting Category:

Grazing Tool	Ranking (1-5)
Grass budget (Ireland)	5
Pasture plan (France)	4
Grassland renovation calculator (Poland)	5
Beteskalle (Sweden)	3
Herbe Book (France)	4
Grip op Gras (The Netherlands)	5
Grass growth prediction (The Netherlands)	3
Graasvisie (The Netherlands)	3

Table 5: Grassland Decision Support Tools Category:

Grazing Tool	Ranking (1-5)
Spring rotation Planner (Ireland)	4
Grass Wedge (Ireland)	5
Manual Plate meter (Ireland)	4
Pasture plan (France)	5
Herbometre (Belgium)	5
Pasture calendar (Belgium)	3
WebGRAS (Italy)	4
Grassland renovation calculator (Poland)	5
Grazing Calender (Sweedon)	4

Table 6: Grassland Decision Support Tools Category (Continuation):

Grazing Tool	Ranking (1-5)
Beweidingswijzer (The Netherlands)	4
WeideKompas (The Netherlands)	4
Grip op Gras (The Netherlands)	5
Grass growth prediction (The Netherlands)	3
Graasvisie (The Netherlands)	3
Digitale graslandgebruikskalender (The Netherlands)	3
Vers gras dashbard (The Netherlands)	3
Beteskalle (multilingual - 7 languages) (Luxembourg)	2

Table 7: Grass Quality Tools Category:

Grazing Tool	Ranking (1-5)
WebGRAS (Italy)	4
Grassland Renovation Calculator (Poland)	5
Harvest prognosis for ley (Sweden)	5
WeideKompas (The Netherlands)	3
Vers gras dashbard (The Netherlands)	4

Table 8: Fertiliser Support Tools Category:

Grazing Tool	Ranking (1-5)
Slurry value calculator (Sweden)	5
Räknehjälpen (Sweden)	5
Beweidingswijzer (The Netherlands)	3
Digitale Graslandgebruikskalender (The Netherlands)	3

Table 9: Weather Tools Category:

Grazing Tool	Ranking (1-5)
Grass growth prediction (The Netherlands)	4

Table 10: Grassland Renovation Tools Category:

Grazing Tool	Ranking (1-5)
Grassland renovation calculator (Poland)	5

Table 11: Feed Costs Tools Category:

Grazing Tool	Ranking (1-5)
Herbometer (Belgium)	3
Grovfoderkalkylen (Sweden)	4
Beweidingswijzer (The Netherlands)	5

Table 12: Ecology Tools Category:

Grazing Tool	Ranking (1-5)
Grassland renovation calculator (Poland)	3

Table 13 Contact Person Grassland tools

Country	Grassland tools	Contact	Phone Number	Email Address
Ireland	Spring rotation Planner	Micheal O'Leary	(0035387)9309936	micheal.oleary@teagasc.ie
Ireland	Grass Wedge	Micheal O'Leary	(0035387)9309937	micheal.oleary@teagasc.ie
Ireland	Grass budget	Micheal O'Leary	(0035387)9309938	micheal.oleary@teagasc.ie
Ireland	GrassHopper	Paddy Halton		support@trunorthtechnologies.ie
Ireland	Pasturebase Ireland	Micheal O'Leary	(0035387)9309940	micheal.oleary@teagasc.ie
Ireland	Manual Plate meter	Grasstec Ltd	(+353) 22 27610	www.grasstecgroup.com
France	Pasture plan	Luc DELABY	+33 (0) 2 23 48 50 98	luc.delaby@inra.fr
Belgium	Herbometre	Alain Peeters	00-32-(0)475 905 914	alain.peeters@rhea-environment.org
Belgium	Pasture calendar	Daniel Jacquet	00-32-(0)87 69 35 20	ste@awenet.be
Italy	webGRAS (potential forage quality)	Giovanni Peratoner	(0039)0471-969661	Giovanni.Peratoner@laimburg.it
Austria	Rotation planner	Andreas Steinwider	(0043)3682 22451-400	andreas.steinwider@raumberg-gumpenstein.at
Austria	Grass Wedge	Andreas Steinwider	(0043)3682 22451-400	andreas.steinwider@raumberg-gumpenstein.at
Austria	Grass budget (Stocking rate in continuous variable stocking)	Andreas Steinwider	(0043)3682 22451-400	andreas.steinwider@raumberg-gumpenstein.at
Germany	Hinweisdienst Grünland	Different contact persons for the respective regions	-	tania.grund@lwk-niedersachsen.de
Germany	Grünlandreifepfung (regional sampling from grassland to help farmers if they want to determine the best point for harvest)	Dr Matthias Benke	-	matthias.benke@lwk-niedersachsen.de
Germany	ISIP (timing of fertiliser application)	Regional advisors or Dr. Martin Berges	-	-
Germany	Grünland online	Prof. Dr. M. Elsaesser	-	Martin.Elsaesser@lazbw.bwl.de
Germany	Wetterfax	District offices of the chamber of agriculture of lower saxony	-	tania.grund@lwk-niedersachsen.de
Poland	Grassland renovation calculator	-	-	-
Sweden	Grazing Calender	Anna Carlsson	+46 709 70 12 06	carlsson@skogsgard.se
Sweden	Beteskalle (multilingual - 7 languages, AutoGrassMilk). A digital planning tool which calculates grazing costs and grass production	Rolf Spörndly	+46 18 67 19 92	rolf.sporndly@slu.se
Sweden	Harvest prognosis for ley	Linda af Geijersstam	+46 76 111 21 23	katorp123@gmail.com
Sweden	Slurry value calculator	Linda af Geijersstam	+46 76 111 21 24	katorp123@gmail.com
Sweden	Grovfoderkalkylen (Forage Calculation) includes cost calculations of producing forage as ley, maize or cereal whole crop. The	Linda af Geijersstam	+46 76 111 21 25	katorp123@gmail.com

	<u>farmers' or advisors' figures are stored online.</u>			
<u>Sweden</u>	<u>Räknehjälpen (Help Figuring) includes about 15 excel files for calculating separate issues, e.g. cost of transporting slurry or forage, demand of nitrogen to reach a given amount of crude protein, cost of different storage systems, cost of additives, cost of forage handling in the feeding system on farm level, prize model for ley or maize when selling between farms.</u>	-	-	-
<u>France</u>	<u>Patur'IN</u>	<u>Luc DELABY</u>	<u>+33 (0) 2 23 48 50 98</u>	<u>luc.delaby@inra.fr</u>
<u>France</u>	<u>Pâtur'Plan</u>	<u>Luc DELABY</u>	<u>+33 (0) 2 23 48 50 98</u>	<u>luc.delaby@inra.fr</u>
<u>France</u>	<u>Herb'Avenir</u>	<u>Luc DELABY</u>	<u>+33 (0) 2 23 48 50 98</u>	<u>luc.delaby@inra.fr</u>
<u>France</u>	<u>Herb'Valo</u>	<u>Rémy DELAGARDE</u>	<u>(+33) 2 23 48 50 96</u>	<u>remy.delagarde@inra.fr</u>
<u>France</u>	<u>Herbe Book</u>	<u>Julien Bouffartigues</u>	-	<u>julien.bouffartigues@gnis.fr</u>
<u>France</u>	<u>Date N'Prairie</u>	-	-	<u>services@arvalis.fr</u>
<u>The Netherlands</u>	<u>Beweidingswijzer</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480735</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>WeideKompas</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480736</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>Grip op Gras</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480737</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>Grass growth prediction</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480738</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>Graasvisie</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480739</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>Digitale graslandgebruikskalender</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480740</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>
<u>The Netherlands</u>	<u>Vers gras dashbard</u>	<u>Agnes van den Pol</u>	<u>+ 31 317 480741</u>	<u>agnes.vandenpol@wur.nl<mailto:agnes.vandenpol@wur.nl></u>

Conclusion:

Grassland tools within the consortium have been identified, categorised and ranked up. Each tool has also been allocated a tool user (advisor/farmer); indicating who could benefit most from use of the specific grassland tool. Tools are associated with seasons (spring, summer, autumn, winter), so that tool users will have the knowledge to know when to use the tool. Information is also provided on whether a tool is web based or not. The contact person of each person has been identified for each tool.