

Opgørelse af klimaaftrykket fra dyrkning af afgrøder - delanalyse 2

All cultivation processes are based on the Agri-footprint 5 (AFP5) database, and they represent

This is just a preliminary hotspot analysis. Background (also called generic) LCA databases should

The activity data used to model the individual cultivation processes should be updated (with mo

some of the main modelling assumptions in AFP5:

fertilizers amounts, *based on national stat (IFAstat), ca*

pesticides amounts, *based on FAO statistics for total p*

capital goods (e.g. tractor, use of concrete), *same as in PEFCE for feed: 327.27*

transport, *manure 30 km, other materials 50*

diesel amounts, *derived from "Energy model for cr*

liming amounts *default value of 400 kg / ha for all*

	Barley, at farm (AFP5) -DK		Rapeseed, at fa
	kg CO2 eq / ha		kg CO2 eq / ha
cultivation (direct emiss, except diesel)	1211,2	53,8%	1487,1
diesel combustion	328,7	14,6%	327,9
fertiliz prod	397,1	17,6%	608,5
electr prod	0,0	0,0%	0,0
liming prod	5,6	0,2%	5,6
diesel prod	41,1	1,8%	41,0
pesticides prod	27,7	1,2%	53,7
seed prod	65,2	2,9%	24,0
transp	75,6	3,4%	75,4
capital goods	100,0	4,4%	99,9
SUM	2252,2		2723,1
not included in ESGren tool	315,2	14,0%	299,6

Notes

red text: processes that are not included in ESGreen tool

The amounts of liming materials used in DK are about half of those used in AFP5

STØTTET AF

Promilleafgiftsfonden for landbrug

SEGES
INNOVATION

Danish cultivation processes

only be used in the case of lack of primary data!

more accurate data), in order to estimate the real effect of the below mentioned subprocesses for Danish crop

combined with crop nutrient models

pesticide use (FAO, 2021b)

1 kg concrete per hectare with a lifetime of 33.3y (already including its EoL)

1 km

crop cultivation"

countries

Farm (AFP5) -DK		Potatoes, at farm (AFP5) -DK		Peas dry, at farm (AFP5) -DK	
		kg CO2 eq / ha		kg CO2 eq / ha	
	54,6%	1698,3	42,5%	768,8	55,2%
	12,0%	674,0	16,9%	281,5	20,2%
	22,3%	891,7	22,3%	41,0	2,9%
	0,0%	29,1	0,7%	0,0	0,0%
	0,2%	5,6	0,1%	5,6	0,4%
	1,5%	84,2	2,1%	35,2	2,5%
	2,0%	120,8	3,0%	48,6	3,5%
	0,9%	231,7	5,8%	48,0	3,4%
	2,8%	103,5	2,6%	72,9	5,2%
	3,7%	159,2	4,0%	92,0	6,6%
		3998,2		1393,6	
	11,0%	705,1	17,6%	302,3	21,7%

	0 Barley, at f	0		0 Rapeseed,	0
	0 kg CO2 eq	0		0 kg CO2 eq	0
cultivation	1211,199	0,537784	cultivation	1487,126	0,546107
diesel com	328,6881	0,145941	diesel com	327,9313	0,120424
fertiliz pro	397,119	0,176325	fertiliz pro	608,5168	0,223461
electr proc	0,043818	1,95E-05	electr proc	0	0
liming pro	5,601198	0,002487	liming pro	5,601198	0,002057
diesel proc	41,06634	0,018234	diesel proc	40,97179	0,015046
pesticides	27,69111	0,012295	pesticides	53,69582	0,019718
seed prod	65,18315	0,028942	seed prod	23,9708	0,008803
transp	75,56458	0,033551	transp	75,40892	0,027692
capital goo	100,0486	0,044423	capital goo	99,91887	0,036693

	0	Potatoes, €	0		0	Peas dry, a	0
	0	kg CO2 eq	0		0	kg CO2 eq	0
cultivation	1698,296	0,424767	cultivation	768,7649	0,551657		
diesel com	673,95	0,168564	diesel com	281,5407	0,20203		
fertiliz pro	891,7182	0,223031	fertiliz pro	40,98974	0,029414		
electr proc	29,14624	0,00729	electr proc	0	0		
liming proc	5,601198	0,001401	liming proc	5,601198	0,004019		
diesel proc	84,20342	0,02106	diesel proc	35,17574	0,025242		
pesticides	120,7608	0,030204	pesticides	48,59892	0,034874		
seed prod	231,7296	0,057959	seed prod	47,97786	0,034428		
transp	103,5429	0,025898	transp	72,94018	0,052341		
capital goo	159,2328	0,039826	capital goo	91,96666	0,065994		