

General information

Remover name	Peter van Deuren		
Project code	PPDL001		
Project name	Paulownia Rolleken		
Location	Rolleken, Lille, Belgium		
Area	1.06	ha	
Starting year	2025		
Duration	10	years	project duration
Biodiversity holding	0%		fruit trees planted (450 extra)
Holding pool	20%		freed up when measurements confirm projection pathways
Project emissions	20%		LCA estimate, or specified when >20%

Per hectare

Baseline TEC	449	tCO2/ha	Soil Organic Carbon and Above Ground Carbon, following CDM AR-ACM0003
Reference capacity	662	tCO2/ha	Using CEDA and Soil sample data
Storage potential	213	tCO2/ha	Projection -/- baseline

Per project

Projected storage	225	tCO2	storage potential per ha x area x storage duration 100 year equivalent
LCA emissions	45	tCO2	project related emissions
Net storage potential	180	tCO2	project storage -/- emissions over 20 years

Potential Carbon Removal Units

Units first 10 years	90	units	10/20 x net storage potential
Holding Pool	18	units	20% of the first 12 years
Biodiversity holding pool	0	units	
Potential units issued	72	units	

68.02270577

Field Code	Field name	Size (ha)	Owner	
A	Rolleken 1	0.237	Peter van Deuren	
B	Rolleken 2	0.82	Peter van Deuren	

Carbon Calculation for		PPDL001							
Surface	1.057	ha	Fields tab						
Capacity Reference SOC	350	tCO2/ha	References tab						
Capacity Reference AGB	312	tCO2e/ha	References tab						

Sources																			
value	source	URL	Notes																
CEDA aboveground biomass carbon	https://climatee	https://datacedaa	2018 data																
SOC	A critical review of the conventional SOC to SOM conversion factor (Geoderma,Volume 156, Issues 3–4, 15 May 2010, Pages 75-83)																		
Density	Wageningen Uir	https://edepot.wu	We've added these soil density levels to the calculation factors tab																
Reference data for capacity																			
SOC (soil)	350	tCO2/ha	estimation based on https://esdac.jrc.ec.europa.eu/content/pan-european-soc-stock-agricultural-soils																
AGB (above ground)	312	tCO2e/ha																	
CALCULATION																			
Tree species	<i>Paulownia tomentosa</i>																		
Trees per hectare	800	trees/ha																	
Damage percentage	1%	trees/y	corrected for replant (2% - 1% = 1%)																
Regrowth after harvest	29.4%	trees/y	assuming a regrowth in 5 years of 80%																
Time first harvest	10	y																	
Time successive harvests	10	y																	
Harvest per harvest year	100%	trees/ha																	
Wood volume per tree	1.0	m3																	
Density dry	275	kg/m3	https://www.researchgate.net/publication/360278806_The_influence_of_Age_on_the_Wood_Properties_of_Paulownia_tomentosa_Thunb_Steu																
CO2 stock trees 10 years	312.04	tCO2/ha	AGB and BGB																
AGB and BGB CO2 stock	y	#trees	vol/tree m3	vol/ha	% in roots/tops	dry matter	CO2 stock												
		trees/ha	m3	m3/ha	%	tons	tCO2/ha												
	1	800	0.000	0	30%	0.00	0.00												
	2	792	0.02	16	30%	5.66	10.38												
	3	784	0.05	39	30%	14.02	25.69												
	4	776	0.09	70	30%	24.98	45.79												
	5	768	0.18	138	30%	49.45	90.66												
	6	761	0.35	266	30%	95.19	174.52												
	7	753	0.50	377	30%	134.63	246.82												
	8	746	0.65	485	30%	173.27	317.66												
	9	738	0.75	554	30%	197.93	362.87												
harvest year	10	0	0.85	0	30%	0.00	0.00												
				0															
	11	217	0.90	195	30%	69.78	127.93												
	12	278	0.95	265	30%	94.56	173.37												
	13	357	1.00	357	30%	127.79	234.28												
	14	459	1.05	482	30%	172.26	315.81												
	15	589	1.10	648	30%	231.68	424.74												
	16	583	1.15	671	30%	239.78	439.61												
	17	577	1.20	693	30%	247.71	454.13												
	18	572	1.25	715	30%	255.45	468.32												
	19	566	1.30	736	30%	263.01	482.19												
harvest year	20	0	1.35	0	30%	0.00	0.00												

0.496	41.8	20.9	0.496
0.495	42	21	0.495
0.494	42.2	21.1	0.494
0.493	42.4	21.2	0.493
0.492	42.6	21.3	0.492
0.491	42.8	21.4	0.491
0.49	43	21.5	0.49
0.488	43.2	21.6	0.488
0.486	43.4	21.7	0.486
0.484	43.6	21.8	0.484
0.482	43.8	21.9	0.482
0.48	44	22	0.48
0.478	44.2	22.1	0.478
0.476	44.4	22.2	0.476
0.474	44.6	22.3	0.474
0.472	44.8	22.4	0.472
0.47	45	22.5	0.47
0.469	45.2	22.6	0.469
0.468	45.4	22.7	0.468
0.467	45.6	22.8	0.467
0.466	45.8	22.9	0.466
0.465	46	23	0.465
0.464	46.2	23.1	0.464
0.463	46.4	23.2	0.463
0.462	46.6	23.3	0.462
0.461	46.8	23.4	0.461
0.46	47	23.5	0.46
0.458	47.2	23.6	0.458
0.456	47.4	23.7	0.456
0.454	47.6	23.8	0.454
0.452	47.8	23.9	0.452
0.45	48	24	0.45
0.448	48.2	24.1	0.448
0.446	48.4	24.2	0.446
0.444	48.6	24.3	0.444
0.442	48.8	24.4	0.442
0.44	49	24.5	0.44

