

**MPS
ECAS**



Certificate

MPS-ECAS awards this certificate in accordance with the certification scheme MPS-ABC version 16.1, to:

**Family Plants Aps
Slettensvej 261
DK-5270 ODENSE
Denmark
MPS-number: 804355**

Applicable to environmental clusters:

POT PLANTS 2; POT PLANTS 4; POT PLANTS 5; POT PLANTS REMAINDER; HERBS AS POTPLANT
VEGETABLE CROPS

Validity: **30-1-2023 valid up to and including 21-5-2023**

Total points: **60,0**

Qualification: **B**

Kind regards,
MPS-ECAS

Signature:

Date of issue:
20-1-2023

Drs. R. Landsmeer, Manager Operations

N.B.: This certificate is only valid for the period specified above.

P.O. Box 114
2678 ZJ De Lier
The Netherlands



QUALIFICATION AND PERIOD GRAPHS

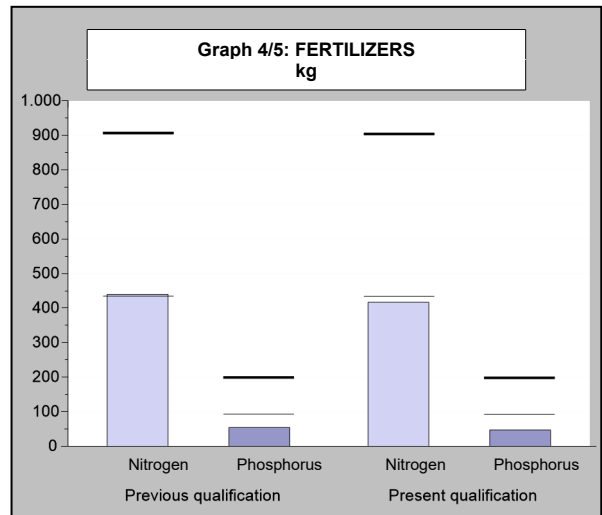
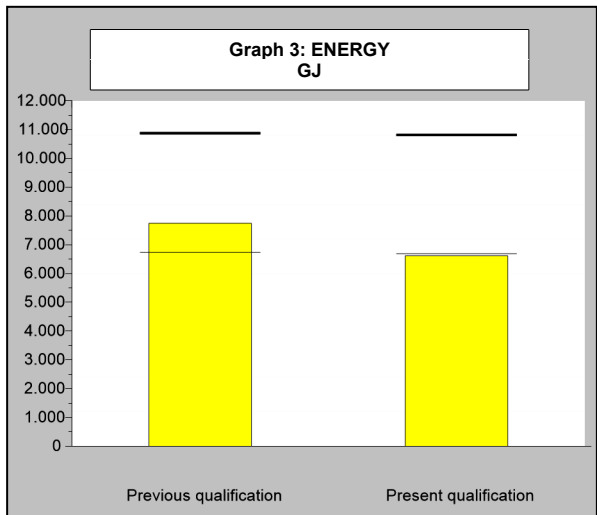
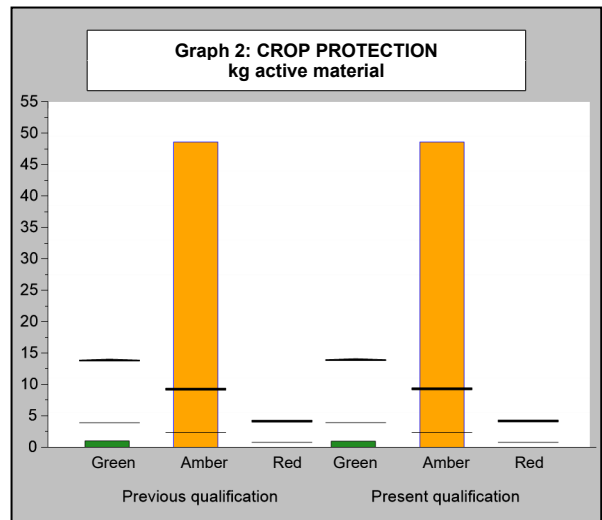
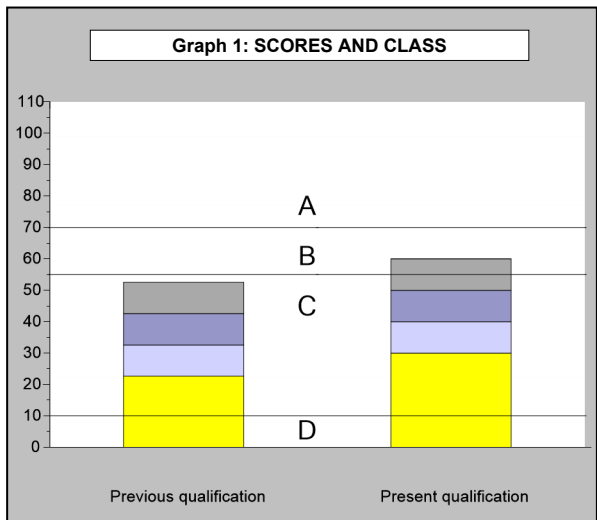
MPS company number: **804355/01**
 Company name: Family Plants Aps (total)

Valid: Period 1-2022 until Period 13-2022
 Version: 20-1-2023

Table 1: DATA QUALIFICATIONS

SUBJECT	Your Company standard		Your use	Your points	max. points	A+ standard	A+ score	Obtained
	Lower	Upper limit						
Crop protection	Green	3,9-14 kg	1	12	12			
	Amber	2,4-9,3 kg	48,6	-90,5	16			
	Red	0,8-4,2 kg	0	12	12			
total				0	40	85 %	-166,2 %	no
Energy total		6690,1-10817,2 GJ	6618,8	30	30	75 %	100 %	yes
Fertilizers	Nitrogen	434,3-904,3 kg	416,9	10	10			
	Phosphorus	93-198,3 kg	47,2	10	10			
total				20	20	75 %	100 %	yes
Waste		0-130	130	10	10			
Water								
Certified parental material				0	10			
Total score (points)				60	110	90	-6,5	no
COMPANY QUALIFICATION				B				

COMPANY USAGE PER 13 PERIODS
 <-----> = Upper limit <.....> = Lower limit

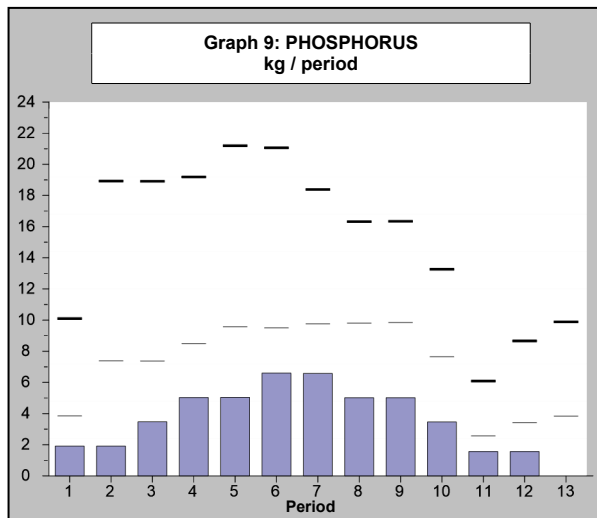
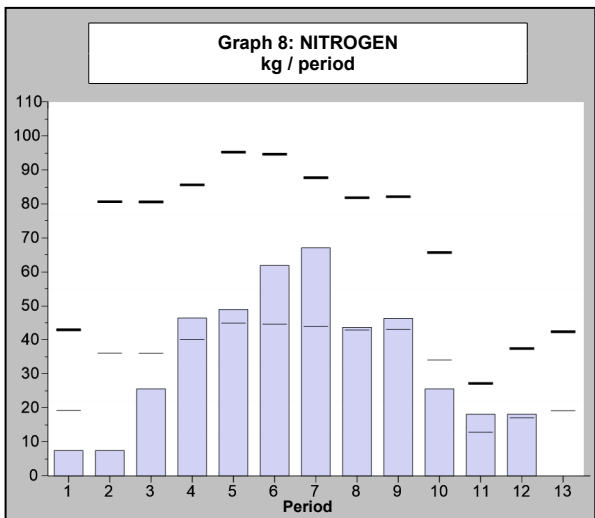
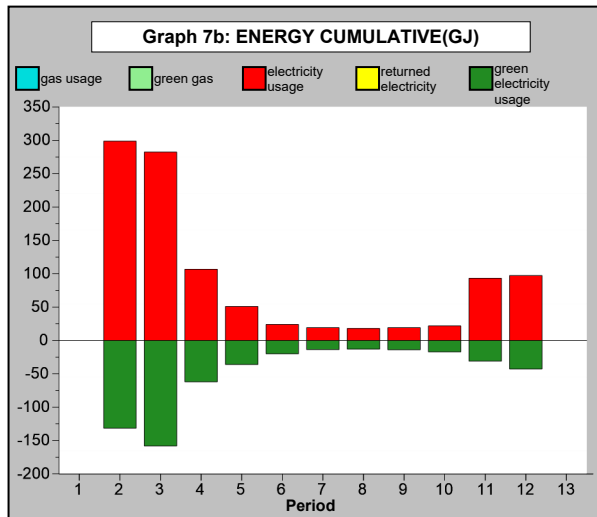
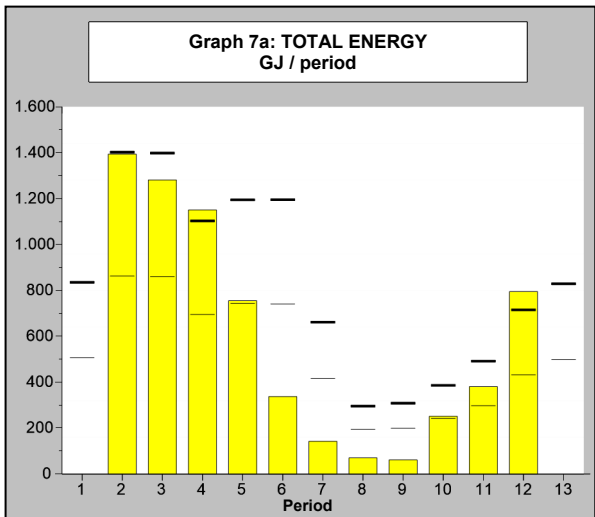
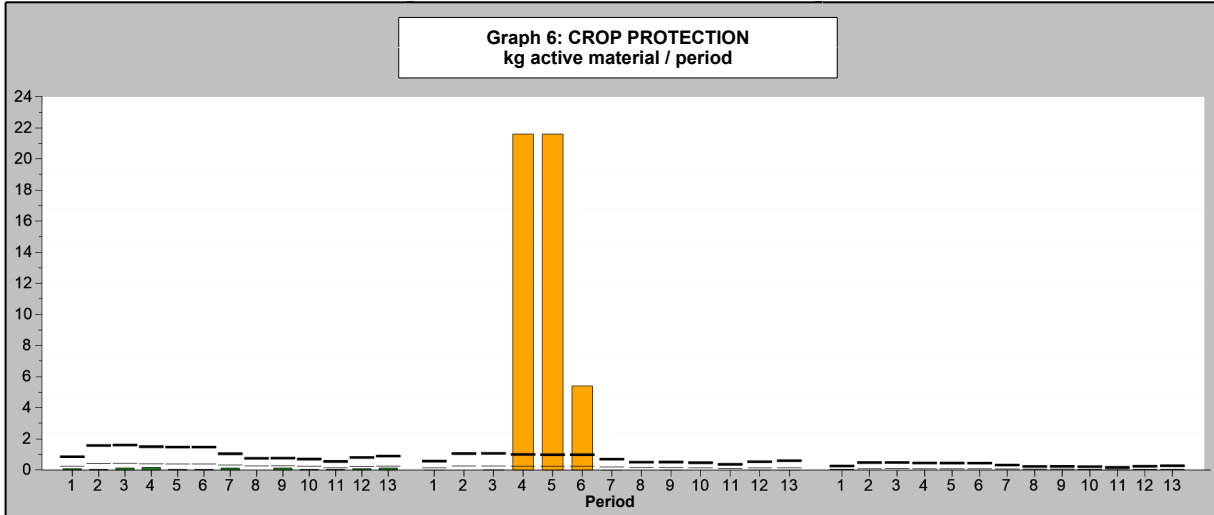


QUALIFICATION AND PERIOD GRAPHS

MPS company number: **804355/01**
 Company name: Family Plants Aps (total)

Valid: Period 1-2022 until Period 13-2022
 Version: 20-1-2023

<-----> = Upperlimit <.....> = Lowerlimit



MPS-Overview Composition of Qualification

MPS company number: **804355/01**
 Company name: Family Plants Aps (total)

Valid: Period 1-2022 until Period 13-2022
 Version: 20-1-2023

Composition of company standards MPS-OEX (Area Efficiency index)

THEMA		Basic standard		% OEX	Companystandard	
		lower-limit	upper-limit		lower-limit	upper-limit
Crop protection	Green				3,9-14 kg	1 kg
	Amber				2,4-9,3 kg	48,6 kg
	Red				0,8-4,2 kg	
Energy		6255,5-10115,9 GJ		6,9 %	6690,1-10817,2 GJ	6618,8 GJ
Nitrogen (N)		402,5-839 kg		7,8 %	434,3-904,3 kg	416,9 kg
Phosphorus (P)		86,2-184,2 kg		7,7 %	93-198,3 kg	47,2 kg

Composition of points MPS environmentally certified parental material

Certified parental material	(Average) area	Your Points	Max points
Total cultivated area 1)	6162,5 m2		
Area certified parental material MPS-ABC	14,4 m2	0	10
Area certified parental material GLOBALGAP	0 m2	0	5
Total points for Certified parental material		0	10

1) Total means: the total area covered and uncovered cultivation and the second crop layer. Not included is the uncultivated area.

Overview Environmental zones

Period	1	2	3	4	5	6	7	8	9	10	11	12	13
Environmental	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3	Zone 3

Company usage of MPS-MIND

Pesticide	Indicator color	active ingredient	Annual company use of active substance		
			Green	Amber	Red
Herfosec / Herfosec (L)	○	herbal extract			
Kompact 5C	●	chlormequat chloride	0,541		
	●	choline chloride	0,376		
Pirouette	●	paclobutrazol		0,007	
SiiTAC SF	○	wetting/sticker agents other			
Stimuter (L)	○	herbal extract			
Teppeki	●	flonicamid	0,060		
Vertimec	●	abamectin		48,614	
Annual company use of active substance			0,976	48,621	

OVERVIEW RECORDED DATA

MPS company number: **804355/01**

Valid: Period 1-2022 until Period 13-2022

Company name: Family Plants Aps (total)

Version: 20-1-2023

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal	Year total
FORM RECEIVED			yes	yes	yes	yes	yes	yes		
CROP PROTECTION AGENTS										
992009	Adalia bipunctata	number	2000						2000	16000
990700	Amblys./Neo.swirskii (=wrong code /use code 990705	number								1250000
990395	Amblyseius / Neoseiulus cucumeris	number	600000						600000	2200000
990705	Amblyseius / Neoseiulus swirskii	number	100000						100000	350000
990424	Aphidius colemani	number	1250						1250	35000
990688	Aphidius ervi	number	588						588	16471
992050	Aphidius/Praon/Aphelinus/Ephedrus (BasilProtect)	number	14	4				4	22	108
990383	Chrysoperla carnea	number	5402						5402	82500
990386	Diglyphus isaea	number	1000						1000	2000
990385	Encarsia formosa	number	11000	10000	20000		35000	30000	106000	371000
	3853 Herfosec / Herfosec (L)	ml								100000
990675	Hypoaspis miles / Stratiolaelaps Scimitus	number	625000		125000				750000	2500000
	3276 Kompact 5C	ml		150	50	50	100	150	500	1175
990690	Orius majusculus	number	12000	3000	4000		12000	12000	43000	102000
990391	Phytoseiulus persimilis	number		60000					60000	60000
	3271 Pirouette	ml		210	70	70	140	210	700	1695
	3834 SilTAC SF	ml	25	150		100	100	330	705	6203
	3855 Stimuter (L)	ml								300000
	3293 Teppeki	grams								120
	3251 Vertimec	ml								2700750
WATER										
	22 Drainage water disposed	m3	79	154	38	79	23	18	391	883
	23 Reused drainage water	m3	400	218	132	36	53	111	950	1915
ENERGY										
	4 Electricity from the grid (Total)	kWh	3269	3489	3974	16938	17698		45368	187546
	6 Green electricity from the grid	kWh	2360	2530	3092	5640	7769		21391	97943
	7 Residual heat usage	GJ	75	64	283	366	851		1639	7041
LIGHTING										
	550001 HP-Hg 400W Conv.	Hour						96		
		Number						112		

OVERVIEW RECORDED DATA (Continued)

MPS company number: **804355/01**

Valid: Period 1-2022 until Period 13-2022

Company name: Family Plants Aps (total)

Version: 20-1-2023

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal	Year total
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LIGHTING (Continued)

		kWatt								
550005	HP-Hg 400W EVSA	Hour								
		Number								
		kWatt								
550012	HP-Na 600W 230V Conv.	Hour					130	172		
		Number					72	72		
		kWatt								
550012	HP-Na 600W 230V Conv.	Hour					78	162		
		Number					72	72		
		kWatt								
550022	HP-Na 600W 230V EVSA	Hour	60							
		Number	80							
		kWatt								
550022	HP-Na 600W 230V EVSA	Hour								
		Number								
		kWatt								
550023	HP-Na 600W 400V EVSA	Hour				112				
		Number				72				
		kWatt								
550023	HP-Na 600W 400V EVSA	Hour				123				
		Number				72				
		kWatt								

FERTILIZERS

513	Ammonium nitrate	kg	10	10	5	5	5		35	90
512	Ammonium phosphate	kg	12	12	6	6	6		42	108
543	Calcium ammonium nitrate (KAS)	kg	50	50	25	25	25		175	450
640	Dolomit kalk	kg	148,077	148,077	148,076				444,23	1480,769
561	Ferrous chelate EDDHA 6%	kg	2	2	1	1	1		7	18
1028	Flocone 0.2+0.3+4.8	litres						0,5	0,5	38,15
965	HC Magnesium Godning	litres	0,6	3,2		0,2			4	4
935	Kalisalpeter 13+0+38 Multi-K GG	kg	70	70	35	35	35		245	630
932	KobberSupport 20 Kobberchelate	litres	0,2	0,2	0,1	0,1	0,1		0,7	1,8
570	Magnesium ammonium nitrate	kg	20	20	10	10	10		70	180
608	Manganese chelate	kg	0,5	0,5	0,25	0,25	0,25		1,75	4,5
453	Pioner Jernchlats 5% HEEDTA	litres	1,4	1,4	0,7	0,7	0,7		4,9	12,6
414	Salpetersyre 62%	litres	40	65	20	20	20		165	511
582	Sodium molybdenum	kg	0,2	0,2	0,1	0,1	0,1		0,7	1,8

OVERVIEW RECORDED DATA (Continued)

MPS company number: **804355/01**

Valid: Period 1-2022 until Period 13-2022

Company name: Family Plants Aps (total)

Version: 20-1-2023

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal	Year total
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FERTILIZERS (Continued)

677	Solubor 20.5%	kg	0,2	0,2	0,1	0,1	0,1		0,7	1,8
919	TBF 17+10+14+4 (Tref Base Fertilizer)	kg	43,692	43,692	43,696				131,08	436,924
933	ZinkSupport 20	litres	0,1	0,1	0,05	0,05	0,05		0,35	0,86

ENVIRONMENTAL CLUSTERS

Indoor crops										
4062	POT PLANTS 2	m2			161	607	1000	1018		
4064	POT PLANTS 4	m2				64	371	800		
4065	POT PLANTS 5	m2	1000	1196	1661	2000	2000	2000		
4070	POT PLANTS REMAINDER	m2				171	800	800		
4075	HERBS AS POTPLANT	m2	500	400	416	386	150	150		
4101	VEGETABLE CROPS	m2	3600	3600	2443					
Subtotal			5100	5196	4680	3229	4321	4768		
Certified parental material										
661	MPS-ABC certif.parental mat. indoor	m2							187	

GENERAL INFORMATION FORM

MPS-Mind

Surface water

3900 What is the minimum distance of this location to the nearest surface water? 250 - 2500 metres / 820 - 8200 feet

Cover

3910 Does the surface of protected cultivation exceed 95% of this location? Yes

Slope

3902 What is the maximum slope of a plot on this location? > 10%

Leaching to groundwater

3903 Do you grow more than 95% of your crops in a closed (recirculation) system, with less than 3% loss of drainwater? Yes

MPS-OEX

Sidescreens:

3950 Are sidescreens being used during lighting in the night? Yes

OVERVIEW RECORDED DATA (Continued)

MPS company number: **804355/01**

Company name: Family Plants Aps (total)

Valid: Period 1-2022 until Period 13-2022

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GENERAL INFORMATION FORM

MPS-OEX

Topscreens:

- | | | |
|------|---|---------------|
| 3951 | Are topscreens being used during lighting in the night? | Yes |
| 3952 | If yes, what is the percentage of light-reduction? | Less than 85% |

CO2

- | | | |
|------|-------------------|----|
| 3953 | Do you apply CO2? | No |
|------|-------------------|----|

Substrate

- | | | |
|------|--|----|
| 3957 | Do you cultivate cut flowers on substrate? | No |
|------|--|----|

Diffuse light

- | | | |
|------|---|-----|
| 3961 | Do you have diffuse glass on your greenhouse? | Yes |
| 3962 | If yes, on what percentage of your greenhouse area? | 10 |
| 3963 | Do you have diffuse foil on your foil-greenhouse? | No |
| 3965 | Do you have diffuse screens on your greenhouse? | Yes |
| 3966 | If yes, on what percentage of your greenhouse area? | 100 |
| 3967 | Do you use a diffuse coating on your greenhouse? | No |

Waste management

- | | | |
|----|--|-----|
| 41 | Do you process organic waste in a responsible way? | Yes |
| 42 | Do you process paper waste in a responsible way? | Yes |
| 43 | Do you process plastic waste in a responsible way? | Yes |

OVERVIEW RECORDED DATA

MPS company number: **804355/01**

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Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal
FORM RECEIVED			yes	yes	yes	yes	yes	yes	yes	
CROP PROTECTION AGENTS										
992009	Adalia bipunctata	number				4000	4000	2000	4000	14000
990700	Amblys./Neo.swirskii (=wrong code /use code 990705	number	200000	200000	100000	350000	350000	50000		1250000
990395	Amblyseius / Neoseiulus cucumeris	number			50000	50000		300000	1200000	1600000
990705	Amblyseius / Neoseiulus swirskii	number						50000	200000	250000
990424	Aphidius colemani	number	5000	20000		2500	2500	1250	2500	33750
990688	Aphidius ervi	number	2353	9412		1176	1176	588	1176	15881
992050	Aphidius/Praon/Aphelinus/Ephedrus (BasilProtect)	number				14	35	16	21	86
990383	Chrysoperla carnea	number	11049	29464		9821	10558	5402	10804	77098
990386	Diglyphus isaea	number							1000	1000
990385	Encarsia formosa	number	40000	60000	20000	51000	51000	20000	23000	265000
3853	Herfosec / Herfosec (L)	ml		100000						100000
990675	Hypoaspis miles / Stratiolaelaps Scimitus	number				500000	500000	250000	500000	1750000
3276	Kompact 5C	ml	100	50	75	200	50	50	150	675
990690	Orius majusculus	number		1000		6000	13000	16000	23000	59000
990391	Phytoseiulus persimilis	number								
3271	Pirouette	ml	140	75	125	290	75	75	215	995
3834	SilTAC SF	ml	683	2385	315	600	990	420	105	5498
3855	Stimuter (L)	ml		100000				200000		300000
3293	Teppeki	grams			120					120
3251	Vertimec	ml			750	1200000	1200000	300000		2700750
WATER										
22	Drainage water disposed	m3		37	56	112	97	91	99	492
23	Reused drainage water	m3		72	144	187	194	218	150	965
ENERGY										
4	Electricity from the grid (Total)	kWh		54313	51310	19417	9263	4363	3512	142178
6	Green electricity from the grid	kWh		23898	28734	11262	6540	3621	2497	76552
7	Residual heat usage	GJ		1410	1330	1271	851	383	157	5402
LIGHTING										
550001	HP-Hg 400W Conv.	Hour								
		Number								

OVERVIEW RECORDED DATA (Continued)

MPS company number: **804355/01**

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Company name: Family Plants Aps (total)

Version: 20-1-2023

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal
		kWatt								
550005	HP-Hg 400W EVSA	Hour		54	54					
		Number		39	39					
		kWatt								
550012	HP-Na 600W 230V Conv.	Hour								
		Number								
		kWatt								
550012	HP-Na 600W 230V Conv.	Hour								
		Number								
		kWatt								
550022	HP-Na 600W 230V EVSA	Hour	148	148	144		60	60	60	
		Number	92	92	92		80	80	80	
		kWatt								
550022	HP-Na 600W 230V EVSA	Hour	265		60					
		Number	80		80					
		kWatt								
550023	HP-Na 600W 400V EVSA	Hour	270	355	170		32		34	
		Number	72	72	72		72		72	
		kWatt								
550023	HP-Na 600W 400V EVSA	Hour	296	374	167		33			
		Number	72	72	72		72			
		kWatt								

FERTILIZERS

513	Ammonium nitrate	kg			5	10	10	15	15	55
512	Ammonium phosphate	kg			6	12	12	18	18	66
543	Calcium ammonium nitrate (KAS)	kg			25	50	50	75	75	275
640	Dolomit kalk	kg	148,077	148,077	148,077	148,077	148,077	148,077	148,077	1036,539
561	Ferrous chelate EDDHA 6%	kg			1	2	2	3	3	11
1028	Flocone 0.2+0.3+4.8	litres	4,15	2	5,25	6,25	11	7,75	1,25	37,65
965	HC Magnesium Godning	litres								
935	Kalisalpeter 13+0+38 Multi-K GG	kg			35	70	70	105	105	385
932	KobberSupport 20 Kobberchelat	litres			0,1	0,2	0,2	0,3	0,3	1,1
570	Magnesium ammonium nitrate	kg			10	20	20	30	30	110
608	Manganese chelate	kg			0,25	0,5	0,5	0,75	0,75	2,75
453	Pioner Jernchlat 5% HEEDTA	litres			0,7	1,4	1,4	2,1	2,1	7,7
414	Salpetersyre 62%	litres			20	66	90	60	110	346
582	Sodium molybdenum	kg			0,1	0,2	0,2	0,3	0,3	1,1

OVERVIEW RECORDED DATA (Continued)

MPS company number: **804355/01**

Valid: Period 1-2022 until Period 13-2022

Company name: Family Plants Aps (total)

Version: 20-1-2023

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal
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FERTILIZERS (Continued)

677	Solubor 20.5%	kg			0,1	0,2	0,2	0,3	0,3	1,1
919	TBF 17+10+14+4 (Tref Base Fertilizer)	kg	43,692	43,692	43,692	43,692	43,692	43,692	43,692	305,844
933	ZinkSupport 20	litres			0,01	0,1	0,1	0,15	0,15	0,51

ENVIRONMENTAL CLUSTERS

Indoor crops									
4062	POT PLANTS 2	m2	1400	2364	2400	1371	257		
4064	POT PLANTS 4	m2	1000	1771	1800	257			
4065	POT PLANTS 5	m2	1700	1989	2000	2000	2000	1393	
4070	POT PLANTS REMAINDER	m2	200	586	600	1114	2143	2400	943
4075	HERBS AS POTPLANT	m2	200	1068	1100	2129	2300	2300	1268
4101	VEGETABLE CROPS	m2		482	500	1529	1700	1700	2854
Subtotal			4500	8261	8400	8400	8400	8400	6457

Certified parental material

661 MPS-ABC certif.parental mat. indoor m2

CO2 Indicator

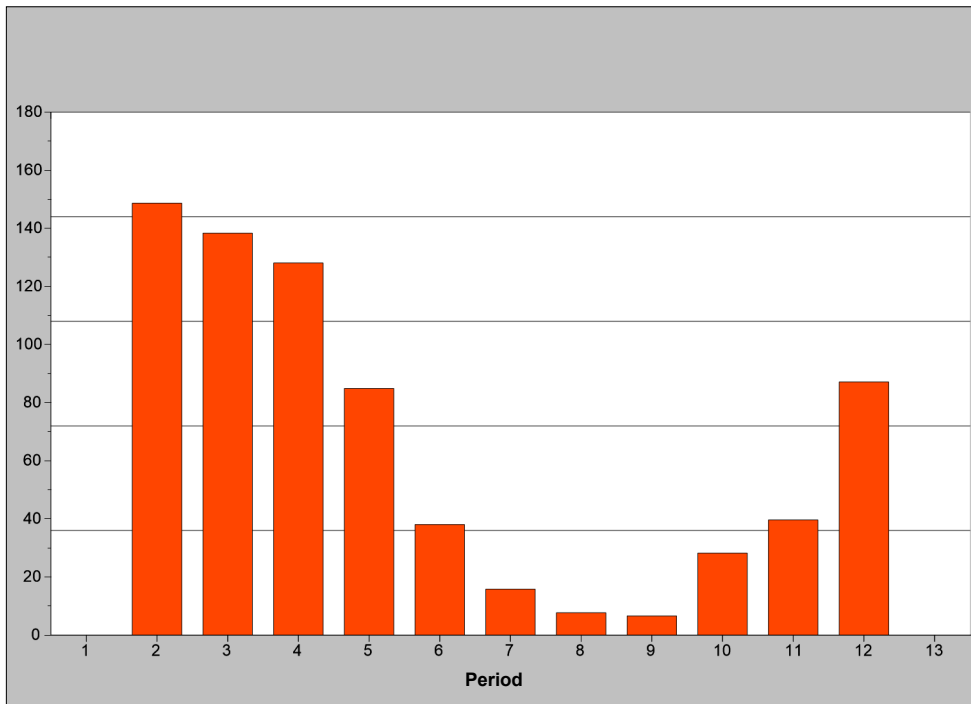
MPS company number: **804355/01**
 Company name: Family Plants Aps

Valid: Period 1-2022 until Period 13-2022
 Version: 20-1-2023

Review CO2-emission per energy source per year (x 1000 kg)

Code		CO2 production (x 1000)
7	Residual heat usage	696
4	Electricity from the grid (Total)	58
6	Green electricity from the grid	-30
Total		724

Review CO2-emission per period (x 1000 kg)



Disclaimer: the purpose of the above mentioned table and graphics is to give an insight in the CO2-emission on company level. The CO2 emission has been based on the energy consumption in GJ and the internationally accepted arithmetic rules. The calculation of the quantity in GJ is based on the calculation system of MPS for the fuel used by the company and the electricity and heating that has been bought and sold. The review serves only as a management tool. No rights can be derived. It is not allowed to use this review for other purposes. In cooperation with (inter)national stakeholders and research organizations MPS is working on further developments concerning CO2. We mainly focus on CO2 emission in the transport chain and the CO2 emission per physical production.