



# Certificate

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

**Luxaflor Roses  
Manyewe North Farm, P.O. Box 1  
CONCESSION  
Zimbabwe  
MPS-number: 792011**

Applicable to environmental clusters:  
ROSE; ROSE par-mat

Validity: **20-5-2024 valid up to and including 11-8-2024**  
Total points: **104,9**  
Qualification: **A+**

Kind regards,  
MPS-ECAS

Signature:

Date of issue:  
21-4-2024

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

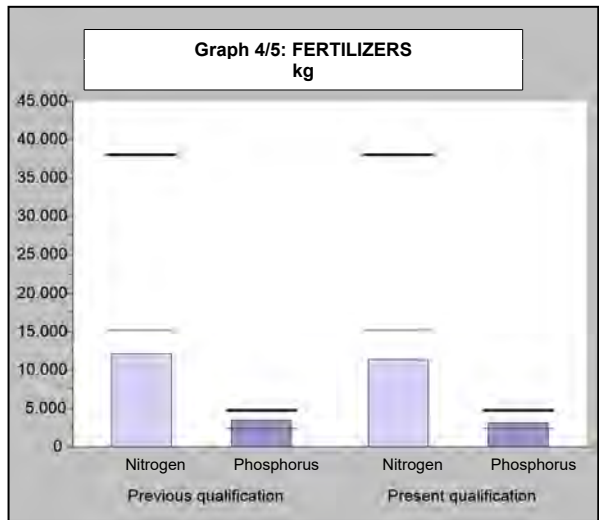
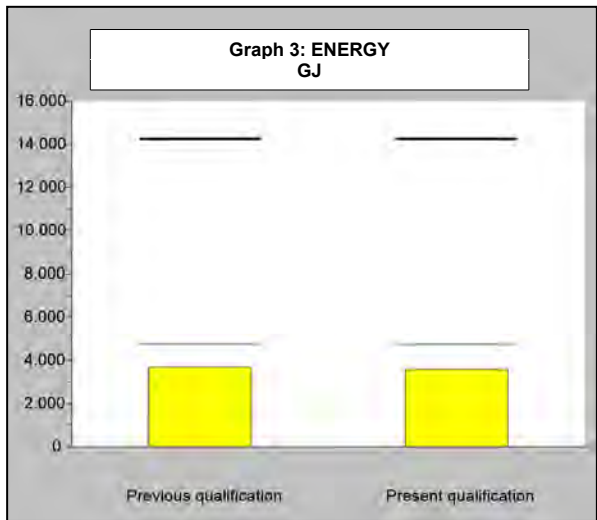
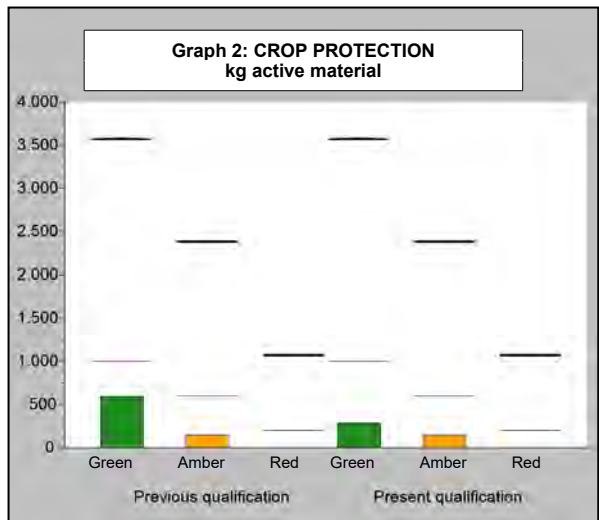
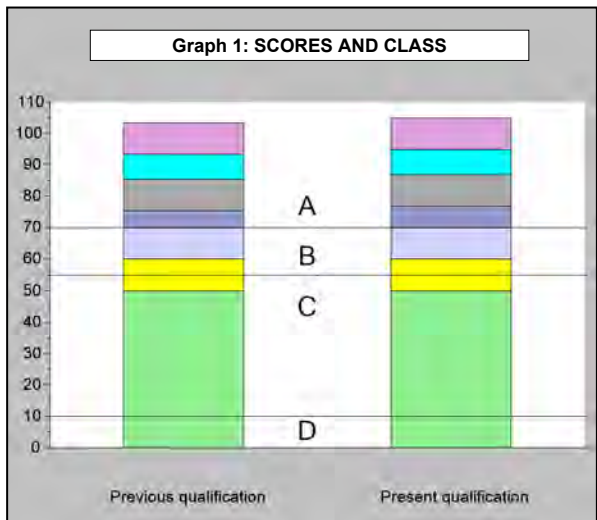
MPS company number: **792011/01**  
 Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024  
 Version: 21-4-2024

**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	1000,6	3573,7 kg	285,9	15	15			
	Amber	600,4	2382,5 kg	147,6	20	20			
	Red	200,1	1072,1 kg	1,7	15	15			
total					50	50	85 %	100 %	yes
Energy total		4750	14250 GJ	3580,3	10	10	75 %	100 %	yes
Fertilizers	Nitrogen	15200	38000 kg	11382,8	10	10			
	Phosphorus	2375	4750 kg	3121,4	6,9	10			
total					16,9	20	75 %	84,2 %	yes
Waste		0	130	130	10	10			
Water		0	130	104	8	10			
Certified parental material					10	10			
Total score (points)					104,9	110	90	104,9	yes
COMPANY QUALIFICATION					A+				

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

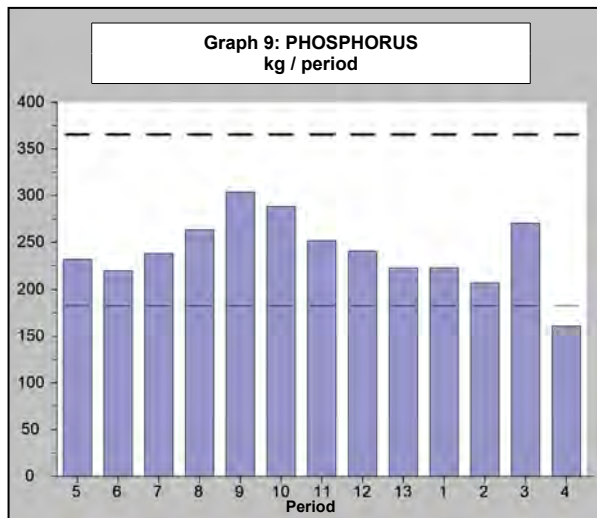
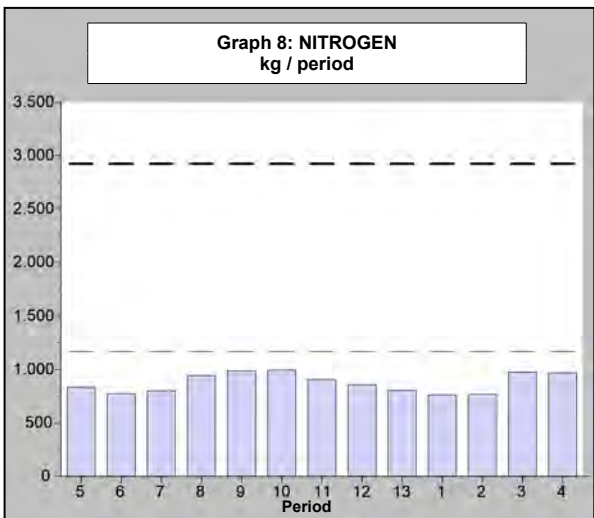
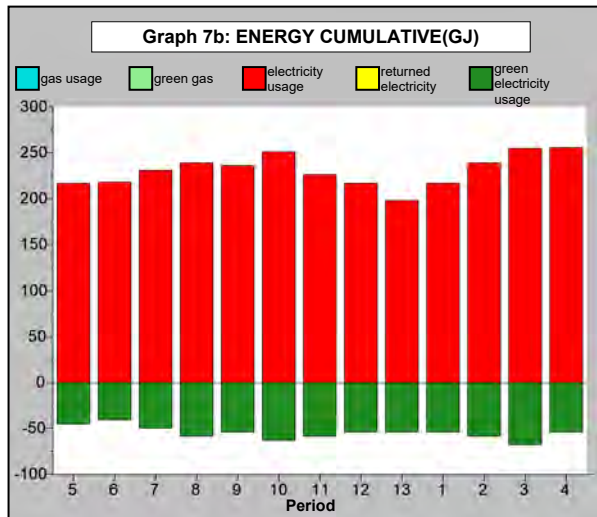
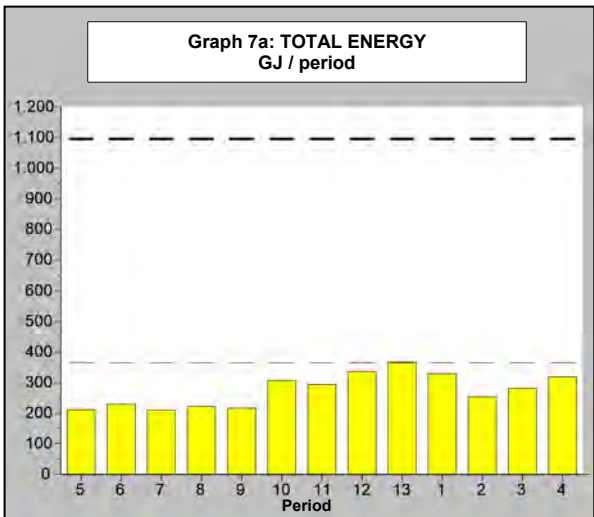
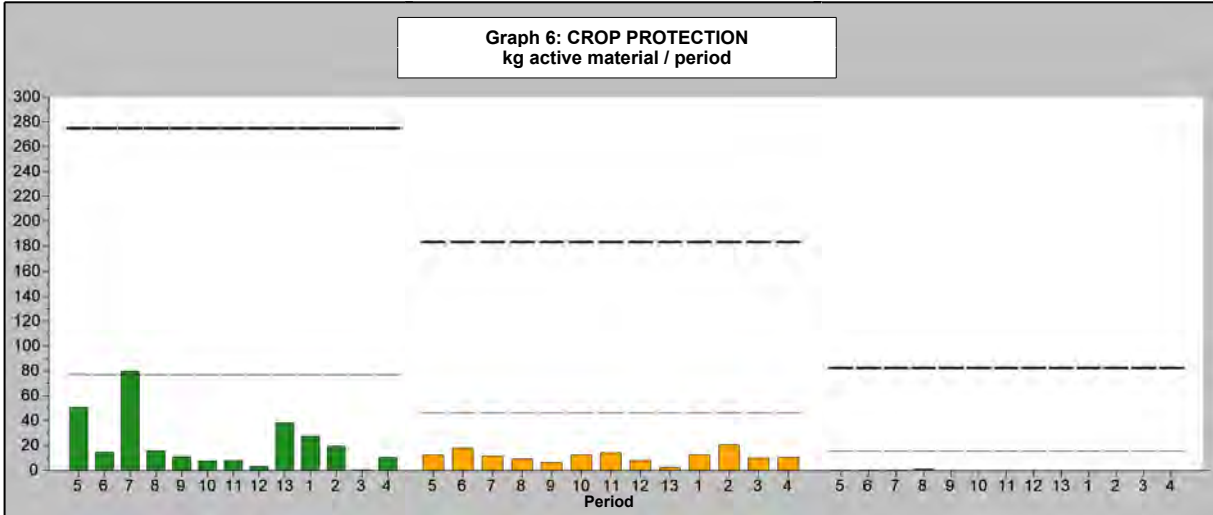


# QUALIFICATION AND PERIOD GRAPHS

MPS company number: 792011/01  
 Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024  
 Version: 21-4-2024

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



# MPS-Overview Composition of Qualification

MPS company number: **792011/01**  
 Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024  
 Version: 21-4-2024

## Composition of points MPS environmentally certified parental material

Certified parental material	(Average) area	Your Points	Max points
Total cultivated area 1)	190000 m2		
Area certified parental material MPS-ABC	190000 m2	10	10
Area certified parental material GLOBALGAP	0 m2	0	5
Total points for Certified parental material		10	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	5	6	7	8	9	10	11	12	13	1	2	3	4
Environmental	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1	Zone 1

## Company usage of MPS-MIND

Pesticide	Indicator color	active ingredient	Annual company use of active substance		
			Green	Amber	Red
Aluminium sulphate	○	aluminium sulphate			
Alvarion 50 WDG	●	boscalid	7,355		
Applegreen EP599	○	acid blue			
Barco 532 (General Purpose Deterge	○	washing soap			
Barco 541 Liquid Bleach (Sodium Hy	○	sodium hypochlorite			
Barco 564 (Superior Liquid Detergent	○	washing soap			
Bellis	●	boscalid	2,591		
	●	pyraclostrobin	1,316		
Belt	●	flubendiamide	6,741		
Dipel DF	○	bacillus thuringiensis			
Dynamec 1.8EC (88-D-141-1)	●	abamectin		0,008	
Glyphosate 360	●	glyphosate-isopropyl ammonium	16,195		
Hansa Add 1055	○	wetting/sticker agents other			
HTH	○	sodium hypochlorite			
Hydrogen Peroxide 40%	○	hydrogen peroxide			
Infito	●	fluopicolide	0,313		
	●	propamocarb hydrochloride	3,125		
Kumulus D.F. (96-B-3-14)	○	sulfur/sulphur			
Levo 2.4 SL	●	oxymatrine		0,036	
Oberon	●	spiromesifen	3,270		
Ortiva	●	azoxystrobin	5,730		
Phosguard 400 SL	●	potassium phosphite	159,376		
Previcur N 72EC (L339N)	●	propamocarb hydrochloride	24,066		
Prosper	●	spiroxamine		144,910	
Prove 1.92 EC	●	emamectin benzoate		0,135	
RO 208	○	heptamethyltrisiloxane			
Rovral 250EC FL (88-B-36-2)	●	iprodione			1,736
Silwet Gold	○	heptamethyltrisiloxane			
Smite	●	etoxazole	0,460		
Steward 150 EC	●	indoxacarb		0,005	
Tracer 480 SC	●	spinosad	5,754		
Twist 500 SC	●	trifloxistrobin	49,604		
Volcano	●	phenol		2,552	
<b>Annual company use of active substance</b>			<b>285,895</b>	<b>147,646</b>	<b>1,736</b>

# OVERVIEW RECORDED DATA

MPS company number: **792011/01**  
 Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024  
 Version: 21-4-2024

Code	Description	Unit	Period 11	Period 12	Period 13	Period 1	Period 2	Period 3	Period 4	Subtotal	Year total
<b>FORM RECEIVED</b>			yes	yes	yes	yes	yes	yes	yes		
<b>CROP PROTECTION AGENTS</b>											
3191	Aluminium sulphate	grams	283600	196800	148800	198400	330000	198400	125600	1481600	2546890
3495	Alvarion 50 WDG	grams			240		4040			4280	14710
3479	Applegreen EP599	grams									2900
3477	Barco 532 (General Purpose Detergent Powder)	grams	34000	35800	28000	48600	47600	36400	31400	261800	432000
3478	Barco 541 Liquid Bleach (Sodium Hypochlorite 5%)	ml	9500	9700	5500	19000	46000	14000	6000	109700	213700
3476	Barco 564 (Superior Liquid Detergent)	ml	23000	30500	51000	32000	48000	24500	20500	229500	458500
3383	Bellis	grams			325	1000				1325	10280
3330	Belt	ml	715	1594	350	786	2261	706	1732	8144	14043
3344	Dipel DF	grams			600				3300	3900	15069
3197	Dynamec 1.8EC (88-D-141-1)	ml									440
3403	Glyfosate 360	ml			12000	21500	6000			39500	39500
3427	Hansa Add 1055	ml	23120	23900	20660	17800	7150	9150	14350	116130	255450
3230	HTH	grams	84250	17000	8500	16000	24000	17500	10000	177250	270850
3424	Hydrogen Peroxide 40%	ml	14200	91880	26400	37300	45750	19100	38200	272830	816835
3397	Infinito	ml									5000
3021	Kumulus D.F. (96-B-3-14)	grams	86200	105700	131150	126050	6000	106340	82160	643600	969800
3359	Levo 2.4 SL	ml					1500			1500	1500
3339	Oberon	ml									13625
3271	Ortiva	ml									22920
3291	Phosguard 400 SL	ml	4000		54520	16200	12900			87620	284600
3038	Previcur N 72EC (L339N)	ml				11875	9075			20950	33425
3311	Prosper	ml	28460	16045	4752	24795	41120	19755	20880	155807	289820
3380	Prove 1.92 EC	ml						5000		5000	7050
3493	RO 208	ml	2500	3600	16690	19310	7945	15450	14300	79795	115120
3092	Rovral 250EC FL (88-B-36-2)	ml									6943
3332	Silwet Gold	ml	89100	104595	81500	79300	54480	58385	48800	516160	1120425
3316	Smite	ml	900	500	1500	100	800	200		4000	4600
3451	Steward 150 EC	ml				31				31	31
3389	Tracer 480 SC	ml	810	465	535				5654	7464	11987
3353	Twist 500 SC	ml	9350	3925	3725	600			13585	31185	99207
3323	Volcano	grams									2700
<b>WATER</b>											
21	Total irrigation	m3	2433	2625	2269	2341	2691	2241	2087	16687	30267

# OVERVIEW RECORDED DATA (Continued)

MPS company number: **792011/01**

Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024

Version: 21-4-2024

Code	Description	Unit	Period 11	Period 12	Period 13	Period 1	Period 2	Period 3	Period 4	Subtotal	Year total
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## ENERGY

4	Electricity from the grid (Total)	kWh	25140	24088	22000	24088	26552	28320	28400	178588	333300
54	Diesel oil/fuel	litres	3555	4895	6284	4698	2075	2665	3300	27472	36377
6	Green electricity from the grid	kWh	6500	6000	6000	6000	6500	7500	6000	44500	79000

## FERTILIZERS

513	Ammonium Nitrate	kg	1122,93	1027,85	956,89	868,42	881,08	1164,19	1146,61	7167,97	13672,64
545	Calcium Nitrate	kg	898,04	895,88	858,74	824,64	859	1044,95	991,22	6372,47	11086,16
733	Elfer Micromax	kg	5,085	0,24	1,98	0,6				7,905	54,085
752	Fe EDTA 13%	kg	124,06	113,375	101,52	100,585	101,61	119,3	121,94	782,39	1469,49
575	Manganese Sulphate	kg	109,44	95,92	88,56	88,56	88,56	104,97	106,7	682,71	1336,544
580	Mono-Ammonium Phosphate 12+61+0	kg	946,09	904,61	836,86	837,31	779,46	1016,76	605,34	5926,43	11736,16
691	Muriate of Potash	kg	1364,45	1303,58	1205,04	1195,37	1049,37	1428,18	1414,42	8960,41	17529,46
656	Nitric Acid 55%	litres	907,74	829,936	951,36	769,66	766,46	1019,98	1361,92	6607,056	12239,246
333	Phosphoric Acid 59%	litres									0,2
710	Potassium Nitrate (Multi-K) 13.5+0+46	kg	1033,85	1027,85	785,4	923,95	951,36	1086,19	1121,9	6930,5	13390,45
766	Sulphuric Acid 98%	kg	1134,67	997,95	962,08	996,82	927,75	1389,49	1641,56	8050,32	16023,49
897	Veni Biosulfur	litres			10,8	12,3			1,2	24,3	84,3
604	Zincsulphate	kg	30,965	27,48	25,47	25,44	25,44	31,05	30,58	196,425	417,6

## ENVIRONMENTAL CLUSTERS

Indoor crops											
2014	ROSE	m2	188000	188000	188000	188000	188000	188000	188000		
3014	ROSE par-mat	m2	2000	2000	2000	2000	2000	2000	2000		
Subtotal			190000	190000	190000	190000	190000	190000	190000		
Certified parental material											
661	MPS-ABC certif.parental mat.indoor	m2	190000	190000	190000	190000	190000	190000	190000		

## GENERAL INFORMATION FORM

### MPS-Mind

#### Surface water

3900 What is the minimum distance of this location to the nearest surface water?

> 2500 metres / > 8200 feet



# OVERVIEW RECORDED DATA (Continued)

MPS company number: 792011/01

Company name: Luxaflo Roses (total)

Valid: Period 5-2023 until Period 4-2024

Version: 21-4-2024

## GENERAL INFORMATION FORM

### MPS-Mind

#### 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? flat

#### 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? No

3904 What is the minimum depth of the groundwater on all your plot(s)? 3 - 15 metres / 9,8 - 49,2 feet

3905 What is the lowest percentage of organic material of your soil on all your plots of this location? 1,5 - 3%

3906 What is the average annual rainfall? 600 - 1500 mm annually / 23 - 59 inch

3907 How many months per year may be regarded as exceptionally dry (less than 2% of the annual precipitation)? 2 - 6 months

3908 What is the average day and night temperature over a whole year? > 20 degrees C / 68 degrees F on aver

#### Water management

45 Do you collect rainwater? No

47 Do you collect leaking water while working with chemicals? Yes

49 Do you record water use? Yes

50 Do you use drip irrigation or recirculation? Yes

#### 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

44 Do you process chemical waste in a responsible way? Yes

# OVERVIEW RECORDED DATA

MPS company number: **792011/01**  
 Company name: Luxaflor Roses (total)

Valid: Period 5-2023 until Period 4-2024  
 Version: 21-4-2024

Code	Description	Unit	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Subtotal
<b>FORM RECEIVED</b>			yes	yes	yes	yes	yes	yes	
<b>CROP PROTECTION AGENTS</b>									
3191	Aluminium sulphate	grams	236090	161200	210800	148800	92000	216400	1065290
3495	Alvarion 50 WDG	grams	960		5230	4000	240		10430
3479	Applegreen EP599	grams	1000	1000	600	300			2900
3477	Barco 532 (General Purpose Detergent Powder)	grams	22000	21200	29800	32400	30000	34800	170200
3478	Barco 541 Liquid Bleach (Sodium Hypochlorite 5%)	ml	25500	23000	5000	28500	9500	12500	104000
3476	Barco 564 (Superior Liquid Detergent)	ml	76000	31000	31000	42500	25000	23500	229000
3383	Bellis	grams	3450	3630	400	1475			8955
3330	Belt	ml	1298	1132	1830	1070	504	65	5899
3344	Dipel DF	grams	5862	5307					11169
3197	Dynamec 1.8EC (88-D-141-1)	ml		440					440
3403	Glyfosate 360	ml							
3427	Hansa Add 1055	ml	15340	20360	25890	21940	15920	39870	139320
3230	HTH	grams	4200	2800	14950	22550	5000	44100	93600
3424	Hydrogen Peroxide 40%	ml	92320	49930	102500	105655	88900	104700	544005
3397	Infinito	ml	900	1350	2750				5000
3021	Kumulus D.F. (96-B-3-14)	grams	58700	53740	87160	24700	44600	57300	326200
3359	Levo 2.4 SL	ml							
3339	Oberon	ml	1375		500		11750		13625
3271	Ortiva	ml	14720	1280	4560	1940		420	22920
3291	Phosguard 400 SL	ml	62580	5400	118200	7800	3000		196980
3038	Previcur N 72EC (L339N)	ml	2105	5625	4520	225			12475
3311	Prosper	ml	19430	35830	23175	18540	12440	24598	134013
3380	Prove 1.92 EC	ml					2050		2050
3493	RO 208	ml	4975	9050	7720	3200	4860	5520	35325
3092	Rovral 250EC FL (88-B-36-2)	ml	400	1000	1003	4540			6943
3332	Silwet Gold	ml	83070	84640	103490	134460	93855	104750	604265
3316	Smite	ml						600	600
3451	Steward 150 EC	ml							
3389	Tracer 480 SC	ml	9	1175	600	242		2497	4523
3353	Twist 500 SC	ml	14110	7640	6372	15125	12350	12425	68022
3323	Volcano	grams	2700						2700
<b>WATER</b>									
21	Total irrigation	m3	2096	2065	2038	2201	2537	2641	13578



# OVERVIEW RECORDED DATA (Continued)

MPS company number: 792011/01

Company name: Luxafloor Roses (total)

Valid: Period 5-2023 until Period 4-2024

Version: 21-4-2024

Code	Description	Unit	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Subtotal
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## ENERGY

4	Electricity from the grid (Total)	kWh	24080	24260	25660	26552	26240	27920	154712
54	Diesel oil/fuel	litres	1125	1455	825	1175	975	3350	8905
6	Green electricity from the grid	kWh	5000	4500	5500	6500	6000	7000	34500

## FERTILIZERS

513	Ammonium Nitrate	kg	1126,66	904,19	959,05	1093,05	1221,61	1200,11	6504,67
545	Calcium Nitrate	kg	897,29	714,44	504,79	905,12	771,93	920,12	4713,69
733	Elfer Micromax	kg		30,65	9,7	2,76	3,07		46,18
752	Fe EDTA 13%	kg	128,05	107,78	105,32	119,96	138,46	87,53	687,1
575	Manganese Sulphate	kg	115,324	89,6	102,21	109,88	118,19	118,63	653,834
580	Mono-Ammonium Phosphate 12+61+0	kg	872,59	825,59	894,95	990	1142,21	1084,39	5809,73
691	Muriate of Potash	kg	1538,64	1178,28	1216,86	1406,79	1644,25	1584,23	8569,05
656	Nitric Acid 55%	litres	379,96	926,34	1077,73	1158,83	1045,48	1043,85	5632,19
333	Phosphoric Acid 59%	litres				0,2			0,2
710	Potassium Nitrate (Multi-K) 13.5+0+46	kg	1149,66	888,54	963,9	1050	1211,61	1196,24	6459,95
766	Sulphuric Acid 98%	kg	1166,54	1288,15	1049,48	1417,03	1887,15	1164,82	7973,17
897	Veni Biosulfur	litres		0,4	19,4	21,7	7,6	10,9	60
604	Zincsulphate	kg	38,735	27,057	29,525	30,003	61,755	34,1	221,175

## ENVIRONMENTAL CLUSTERS

Indoor crops									
2014	ROSE	m2	188000	188000	188000	188000	188000	188000	
3014	ROSE par-mat	m2	2000	2000	2000	2000	2000	2000	
Subtotal			190000	190000	190000	190000	190000	190000	
Certified parental material									
661	MPS-ABC certif.parental mat.indoor	m2	190000	190000	190000	190000	190000	190000	