

Certificate

MPS-ECAS awards this certificate in accordance with the certification scheme MPS ABC version 15 080217, to:

**Sher Ethiopia Plc.
P.O. Box 120963
Addis Ababa
Ethiopia
MPS-number: 802685**

Applicable to environmental clusters:
ROSE; ROSE par-mat

Validity: **13-8-2018 until 4-11-2018**
Total points: **85,2**
Qualification: **A**

Kind regards,
MPS-ECAS

Signature:

Date of issue:
7-8-2018



Ing. C. Maas

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

MPS-ECAS
Certification



QUALIFICATION AND PERIOD GRAPHS

MPS company number: **802685/01**
 Company name: Sher Ethiopia Plc. (total)

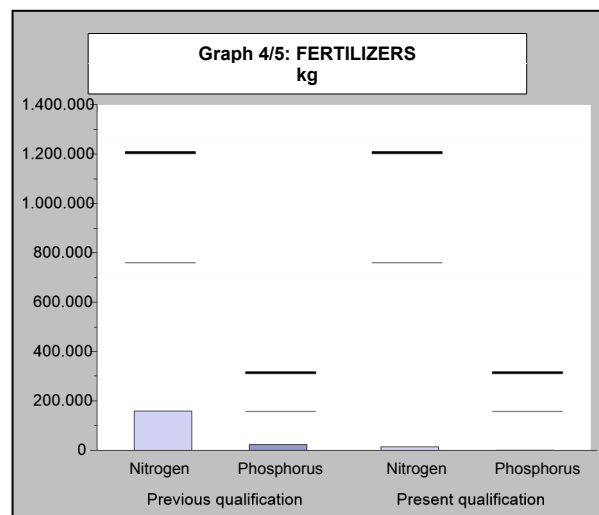
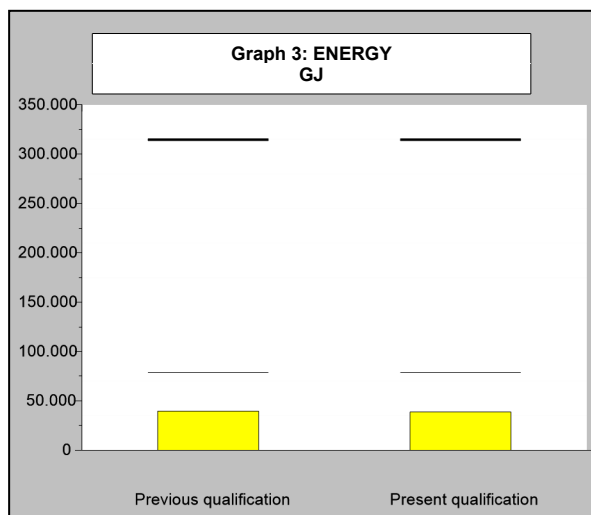
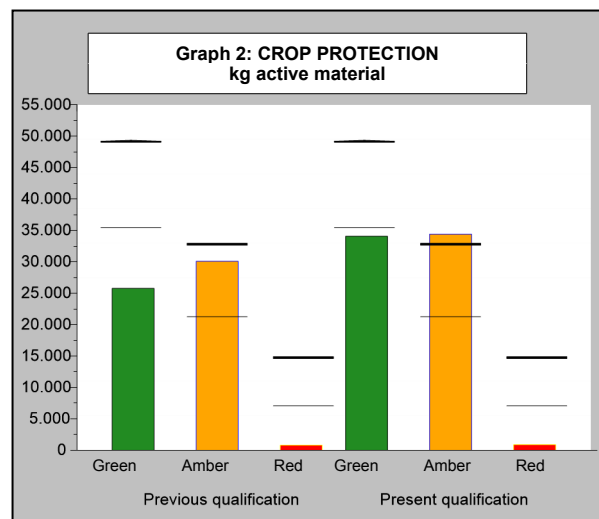
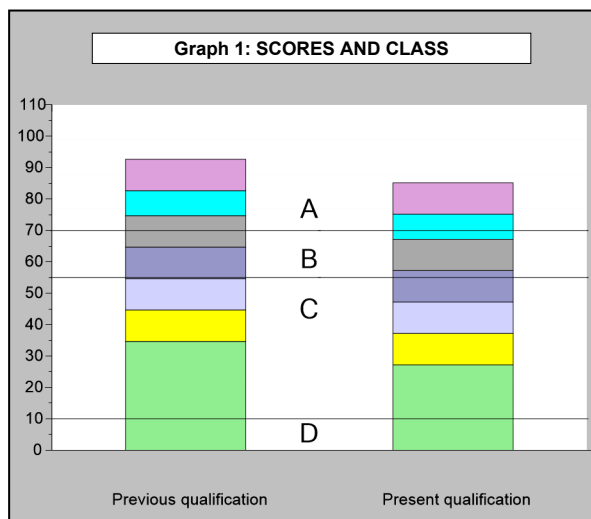
Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

Table 1: DATA QUALIFICATIONS

SUBJECT		Uw Company standard	Uw use	Uw points	max. points	A+ standard	A+ score	Obtained
		Lower- Upper limit						
Crop protection	Green	35434,1-49214,1 kg	34072	15	15			
	Amber	21260,5-32809,4 kg	34415,4	-2,8	20			
	Red	7086,8-14764,2 kg	901,1	15	15			
total				27,2	50	85 %	54,4 %	no
Energy total		78675-314700 GJ	38800,2	10	10	75 %	100 %	yes
Fertilizers	Nitrogen	760525-1206350 kg	14638,1	10	10			
	Phosphorus	157350-314700 kg	508,9	10	10			
total				20	20	75 %	100 %	yes
Waste		0-130	130	10	10			
Water		0-130	104	8	10			
Certified parental material				10	10			
Total score (points)				85,2	110	90	85,2	no
COMPANY QUALIFICATION				A				

COMPANY USAGE PER 13 PERIODS

<-----> = Upper limit <.....> = Lower limit

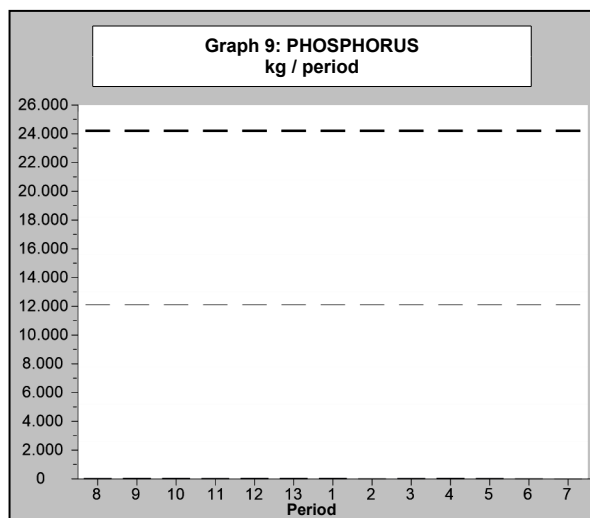
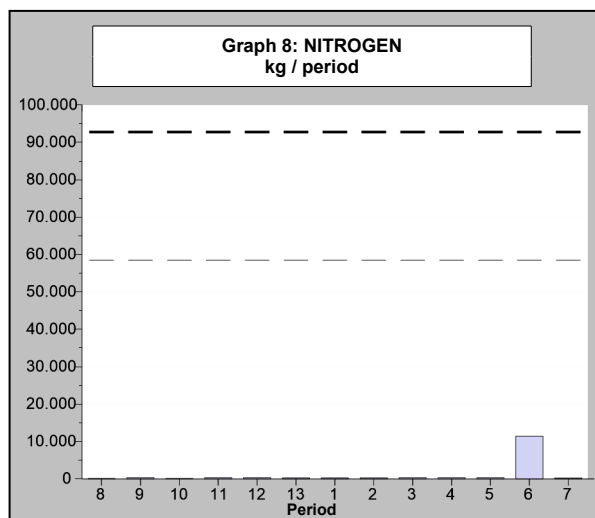
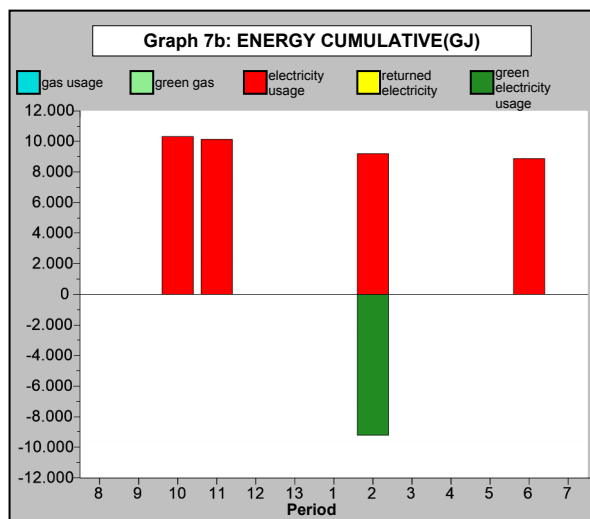
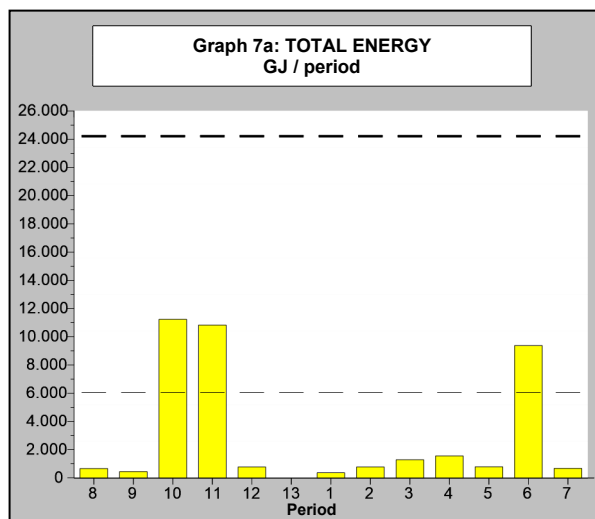
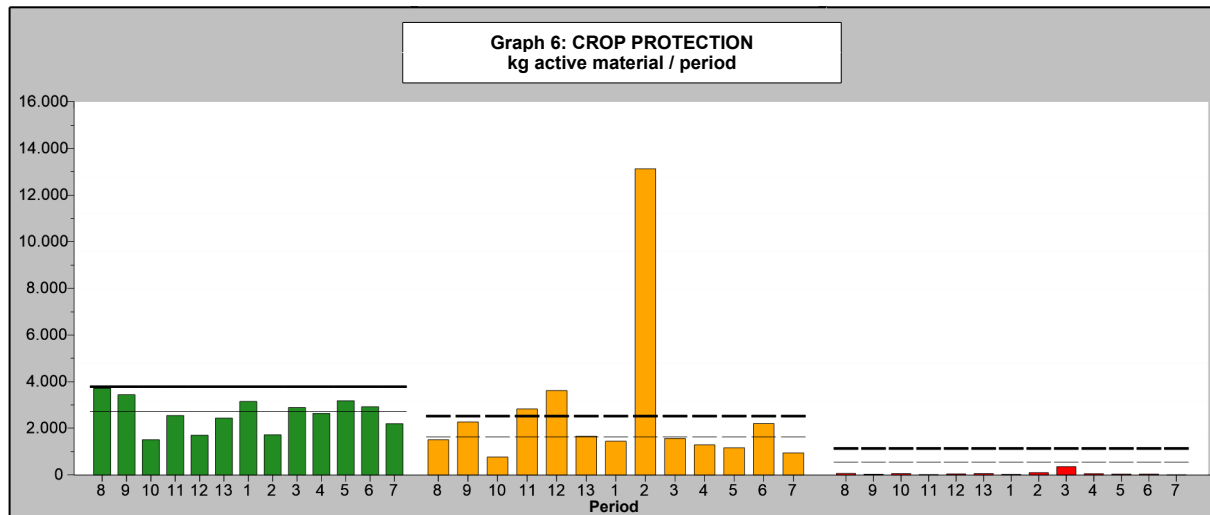


QUALIFICATION AND PERIOD GRAPHS

MPS company number: **802685/01**
 Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

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



MPS-Overview Composition of Qualification

MPS company number: **802685/01**
 Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

Composition of points MPS environmentally certified parental material

Certified parental material	(Average) area	Your Points	Max points
Total cultivated area 1)	5245000 m2		
Area certified parental material MPS-ABC	5230000 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.

Company usage of MPS-MIND

Pesticide	Indicator color	active ingredient	Annual company use of active substance		
			Green	Amber	Red
Addit	○	vegetable oil			
Agrixyl 407SL	●	metalaxyl		1,085	
	●	mono- and di- potassium salts of		6,200	
Aliette 80 WP	●	fosetyl-aluminium	542,320		
Biota-300	○	enzymen			
	○	plant extract			
Botridion 500 SC	●	iprodione			9,050
B-Wise 1.9 EC	●	emamectin benzoate		69,185	
Collis	●	boscalid	1029,299		
	●	kresoxim-methyl	514,649		
Conserve	●	spinosad	143,364		
Crop Guard 80	●	furfural		4951,600	
Dipel DF	○	bacillus thuringiensis			
Flipper	○	potassium salts and fatty acids			
Floramite 240 SC	●	bifenazate	419,544		
Fosetyl 80 WP	●	fosetyl-aluminium	201,360		
Freebac-Clearoxyl (Aquamar)	○	ethanol			
	○	glycerol			
	○	hydrogen peroxide			
Game 5% EC	●	lufenuron			15,030
Goldazim	●	carbendazim		10,199	
Impulse	●	spiromaxime		22048,500	
Ippon	●	iprodione			6,235
Iprodione 500 SC	●	iprodione			9,000
Kaligreen	●	potassium bicarbonate	5532,795		
Kelpak	○	seaweed extract			
Lecatech	○	fungus			
Luna Tranquility	●	fluopyram	731,003		
	●	pyrimethanil		2186,539	
Mancozeb	●	mancozeb	10358,060		
Match 50 EC	●	lufenuron			160,686
Meltatox 40 EC	●	dodemorph	7572,878		
Movento OD 150	●	spirotetramat	2,828		
Mytech WP	○	paecilomyces lilacinus			
M-Zeb 80 WP	●	mancozeb	22,016		
NEMguard TM	○	garlic extract			
Nomolt	●	teflubenzuron	437,436		
Optimus	○	plant extract			
Pencoazol 100 EC	●	penconazole			688,760
Previcur N	●	propamocarb hydrochloride	837,171		
Prima 1.9 EC	●	emamectin benzoate		22,468	
Proove 20 SL	●	imidacloprid			4,200

MPS-Overview Composition of Qualification

MPS company number: **802685/01**
 Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

Company usage of MPS-MIND

Pesticide	Indicator color	active ingredient	Annual company use of active substance		
			Green	Amber	Red
Proplant	●	propamocarb hydrochloride	72,200		
Prove 1.9 EC	●	emamectin benzoate		1,642	
Pymet 50 WG	●	pymetrozine		3741,875	
Revus	●	mandipropamid	42,173		
Rhizopon AA Powder 1 %	●	indolylbutyric acid	1,430		
Rhizopon AA Water Soluble Tablets (I	●	indolylbutyric acid	46,988		
Rift 20% SL	●	acetamiprid	824,310		
Rizolex 50 WP	●	tolclofos-methyl		47,124	
Rodimus	○	plant extract			
Rooting hormone 0.4%	●	indolylbutyric acid	0,216		
Rooting hormone 0.6%	●	indolylbutyric acid	0,150		
Round Up	●	glyphosate		0,720	
Rovral 250 flow	●	iprodione			8,116
Runner	●	methoxyfenozide	133,992		
Sesamin EC	○	vegetable oil			
Siliconi	○	wetting/sticker agents other			
Solucion	○	wetting/sticker agents other			
Spiroxamine	●	spiroxamine		663,850	
Supramino Terra	○	amino and nucleic acids			
	○	humic acids			
Switch 62.5 WG	●	cyprodinil		310,617	
	●	fludioxonil	209,876		
Teflu 150 SC	●	teflubenzuron	181,740		
Teppeki 50 WG	●	flonicamid	1235,483		
Tracer 480 SC	●	spinosad	147,672		
Trium-P	○	trichoderma harzianum			
Turex	○	bacillus thuringiensis			
Vaselife Defend	○	pretreatment			
Velum SC500	●	fluopyram	0,440		
Victory 72 WP	●	mancozeb	2830,602		
	●	metalaxyl		353,825	
Vidi Fortum	○	plant extract			
Vidi Parva	○	plant extract			
Vidi Terrum	○	plant extract			
Annual company use of active substance			34071,995	34415,428	901,077

OVERVIEW RECORDED DATA

MPS company number: **802685/01**

Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
CROP PROTECTION AGENTS											
3868	Addit	ml	129700	6300	158000					294000	487650
3851	AgrixyL 407SL	ml									15500
3108	Aliette 80 WP	gram			75500	247000	78200	166200	111000	677900	677900
4225	Biota-300	ml	47500							47500	250000
3860	Botridion 500 SC	ml			8500	9600				18100	18100
4214	B-Wise 1.9 EC	ml	152950	70500	180750	458400	634400	809500	412300	2718800	3641300
3167	Collis	ml	1130050	32500	18500	362200	29500	864700	374650	2812100	5146493
3226	Conserve	ml		187300	208500	26800				422600	1194700
4064	Crop Guard 80	ml		600000						600000	6189500
4168	Dipel DF	gram		3750	1026650	939400	369000			2338800	2338800
4221	Flipper	ml	7100	24000	42000					73100	423000
3117	Floramite 240 SC	ml	24500	43000	9000	108900	295500	182500	98900	762300	1748100
3395	Fosetyl 80 WP	gram						138900	112800	251700	251700
3981	Freebac-Clearoxyl (Aquamar)	ml	384000							384000	854000
4178	Game 5% EC	ml	88800					117600	83000	289400	300600
3023	Goldazim	ml	2376	1785	6979					11140	20397
3174	Impulse	ml	1327600	23693300	2173200	1531100	1657500	2278600	1134600	33795900	44097000
3175	Ippon	ml			12470					12470	12470
3106	Iprodione 500 SC	ml						18000		18000	18000
4194	Kaligreen	gram	1112200	375800	67500	622000	687000	10800	17820	2893120	6755550
3345	Kelpak	ml			50000	50000				100000	1860000
4144	Lecatech	gram	2500	2750		3000				8250	11250
3988	Liquid Seal	ml			26700		45500	9600	13300	95100	452000
4034	Luna Tranquility	ml	303250	1606000	8000	527700	111000	78000	76000	2709950	6469050
3026	Mancozeb	gram	62800	822550	2155360	855030	35240	982610	817660	5731250	12947575
3014	Match 50 EC	ml	458740		183800	238600	561400	190500	4100	1637140	3213718
3073	Meltatox 40 EC	ml	4139100	821400	1601100	1437200	1299400	790400	2274900	12363500	18932196
3858	Movento OD 150	ml									18850
4237	Mytech WP	gram	500							500	938
4224	M-Zeb 80 WP	gram									27520
4245	NEMguard TM	ml					7000		35000	42000	42000
3249	Nomolt	ml		218800	59000	671400	498400	35000	6800	1489400	2916241
4101	Optimus	ml	1825500	280000	49000				1578000	3732500	18314500
4215	Pencozool 100 EC	ml		974850	3331500	339800	94200	124000	73700	4938050	6887600
3120	Previcur N	ml	6560	17060	39929	169720	206520	61340	162140	663269	1159516
4239	Prima 1.9 EC	ml				660000		206500	303700	1170200	1170200
4018	Proove 20 SL	ml									21000
3044	Proplant	ml			96500	3500				100000	100000
3382	Prove 1.9 EC	ml				41600	43900			85500	85500

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/01**

Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
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CROP PROTECTION AGENTS (Continued)

4216	Pymet 50 WG	gram	1329300	508750	840800	641400	214900	897750	270850	4703750	7483750
3348	Revus	ml		6000	115900	59100				181000	181000
4043	Rhizopon AA Powder 1 %	gram		4000	54500	23500	3500	12500	6000	104000	143000
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram	28000	4000	71700	69240	14000	6000	6000	198940	234940
4185	Rift 20% SL	ml	434200	426400	586600	529150	604700	329200	113200	3023450	4121550
3183	Rizolex 50 WP	gram	1188	4861	81275					87324	94248
4275	Rodimus	ml							1800	1800	1800
3267	Rooting hormone 0.4%	gram				12000	14000		6000	32000	54000
3268	Rooting hormone 0.6%	gram									25000
3273	Round Up	ml									2000
3030	Rovral 250 flow	ml	1188	2174		5340	7120	5340	5340	26502	32464
3271	Runner	ml					324500	171200		495700	558300
3958	Sesamin EC	ml				100000				100000	100000
4054	Siliconi	ml	476100	502500	682350	694800	712350	9700	5000	3082800	7195050
4098	Solucion	ml									720800
4283	Spiroxamine	ml						935000	392700	1327700	1327700
4223	Supramino Terra	ml	45000						270000	315000	790000
3127	Switch 62.5 WG	gram	33876	2374	26700		45500	15000	11200	134650	839504
4186	Teflu 150 SC	ml						768200	443400	1211600	1211600
3378	Teppeki 50 WG	gram	83310	144500	167700	181882	297500	277300	61500	1213692	2470967
3187	Tracer 480 SC	ml	20600		36900	34600	24300	145350	31500	293250	307650
4005	Trianum-P	gram	7500	116000	154000	890400	756500	535000	1280500	3739900	3826050
3913	Turex	gram						253000	719800	972800	972800
4252	Vaselife Defend	ml						5600		5600	5600
4027	Velum SC500	ml					880			880	880
3218	Victory 72 WP	gram				15616	2060800	1207300	55200	3338916	4422816
4197	Vidi Fortum	ml	24800							24800	263800
4196	Vidi Parva	ml	26200							26200	141200
4195	Vidi Terrum	ml	26200							26200	141200

ENERGY

4	Electricity usage (Total)	kWh		1022820				986785		2009605	4283713
54	Diesel oil/fuel	litre	10312	22050	36250	43902	22160	13988	18998	167660	266253
6	Green Electricity Usage	kWh		1022820						1022820	1022820

FERTILIZERS

572	Ammonium Sulphate (21%)	kg	69,875	110,65	127,3	101,335	61,33	29	31,225	530,715	589,565
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OVERVIEW RECORDED DATA (Continued)

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Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

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

524	Borax (Boric Acid)	kg	5,257	5,228	6,327	1343	5,378	4,681	4,817	1374,688	1472,942
504	Calcium nitrate	litre		800				600	600	2000	5510
503	Calcium nitrate (nitrate of Lime)	kg	1078,85	246,803	1179,6	1036,44	1065,35	322,805	268,693	5198,541	6548,579
506	Copper sulphate	kg	3,306	1,045	1,167	281,05	3,584	3,07	3,334	296,556	1114,056
559	EDDHA chelated Iron	kg					40	35		75	75
544	Eddha iron 6%	kg	41,071	40,532	46,414	57,929	36,645	61,846	34,332	318,769	422,667
525	Fe DTPA 6%	kg	21,192	20,857	11,394	34,546	21,574	24,436	26,942	160,941	220,591
521	Magnesium sulphate	kg	724,71	576,052	594,975	509,511	469,725	383,794	489,452	3748,219	7471,124
513	Manganese sulphate	kg	5,251	5,228	6,327	6,342	5,378	4,681	4,817	38,024	77,278
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	65,425	81,816	88,1	94,025	68,469	63,91	5,089	466,834	983,361
514	Mono-potassium phosphate 0+52.29+33.98	kg	125,9	0,425	96,4	133,25	76,625	8,55	11,2	452,35	1082,752
534	Natriummolybdaat	kg	18,547	18,186	0,586	48,194	5,096	42,878	48,06	181,547	16554953,48
550	Nitric Acid 54%	litre			40,04			71,965		112,005	161,74
551	Nitric Acid 68%	litre	197,26	334,145	280	318,22	329,875	140	264,185	1863,685	2796,695
515	Potassium nitrate 13+0+45	kg	200	200	300	275	225	225	225	1650	2621
533	Potassium Nitrate 13+0+46	kg	61,125	58,675	90,475	108,688	144,325	86075	129,43	86667,718	87012,538
626	Potassium Phosphite 0+30+20	litre									2,649
517	Potassium sulphate	kg					3,931	86,86	123,895	214,686	27508,834
655	PRiME	litre									1,773
537	Urea 46%	kg	3,5	1,963	0,38		11,846	12,254	3,911	33,854	770,441
501	Zinc sulphate	litre	3,306	1,045	0,267	3,805	3,584	3,07	3,318	18,395	34,151

ENVIRONMENTAL CLUSTERS

Indoor crops											
2014	ROSE	m2	5230000	5230000	5230000	5230000	5230000	5230000	5230000		
3014	ROSE par-mat	m2	15000	15000	15000	15000	15000	15000	15000		
Subtotal			5245000	5245000	5245000	5245000	5245000	5245000	5245000		
Certified parental material											
661	MPS-ABC certif.parental mat. indoor	m2	5230000	5230000	5230000	5230000	5230000	5230000	5230000		

OVERVIEW RECORDED DATA

MPS company number: **802685/01**

Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
CROP PROTECTION AGENTS									
3868	Addit	ml	70000					123650	193650
3851	Agrixy 407SL	ml						15500	15500
3108	Aliette 80 WP	gram							
4225	Biota-300	ml		25000	14000	127500	36000		202500
3860	Botridion 500 SC	ml							
4214	B-Wise 1.9 EC	ml	109885	160715	158400	220400	138200	134900	922500
3167	Collis	ml	334050	566500	493	64800	576150	792400	2334393
3226	Conserve	ml	45900		21600	12200	600900	91500	772100
4064	Crop Guard 80	ml		900000	85000	2020000	2584500		5589500
4168	Dipel DF	gram							
4221	Flipper	ml		77200	22000		163500	87200	349900
3117	Floramite 240 SC	ml	31500	165300	568100	171900	45300	3700	985800
3395	Fosetyl 80 WP	gram							
3981	Freebac-Clearoxyl (Aquamar)	ml		23000	54000	72000	42000	279000	470000
4178	Game 5% EC	ml				4000		7200	11200
3023	Goldazim	ml	1000	1000	1782	2376	1548	1551	9257
3174	Impulse	ml	1943400	1829000	1224400	1049300	2052000	2203000	10301100
3175	Ippon	ml							
3106	Iprodione 500 SC	ml							
4194	Kaligreen	gram	1201700	79000	220980	36000	984200	1340550	3862430
3345	Kelpak	ml	1620000	140000					1760000
4144	Lecatech	gram						3000	3000
3988	Liquid Seal	ml	136500	195900				24500	356900
4034	Luna Tranquility	ml	636600	887300	30000	1203000	472200	530000	3759100
3026	Mancozeb	gram	1921525	1809170	1340610	1996640	72480	75900	7216325
3014	Match 50 EC	ml	49500	149200	278	414100	402000	561500	1576578
3073	Meltatox 40 EC	ml	131300	2172800	2596	1293800	984100	1984100	6568696
3858	Movento OD 150	ml	18850						18850
4237	Mytech WP	gram						438	438
4224	M-Zeb 80 WP	gram	13900	13620					27520
4245	NEMguard TM	ml							
3249	Nomolt	ml	53000	1022700	41	143200	34300	173600	1426841
4101	Optimus	ml	5055500	2145000	2626500	338000	1319000	3098000	14582000
4215	Pencozool 100 EC	ml	587700	259100	603000		219750	280000	1949550
3120	Previcur N	ml	432300	39000	3676	3670	2140	15461	496247
4239	Prima 1.9 EC	ml							
4018	Proove 20 SL	ml	13000					8000	21000
3044	Proplant	ml							
3382	Prove 1.9 EC	ml							

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/01**

Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
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CROP PROTECTION AGENTS (Continued)

4216	Pymet 50 WG	gram	399000	424750	125500	388850	725800	716100	2780000
3348	Revus	ml							
4043	Rhizopon AA Powder 1 %	gram	8000		8000	10000	8000	5000	39000
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram	16000		12000			8000	36000
4185	Rift 20% SL	ml	184850	249850	20550	229800	127150	285900	1098100
3183	Rizolex 50 WP	gram	1000	2000	891	1188	774	1071	6924
4275	Rodimus	ml							
3267	Rooting hormone 0.4%	gram	8000	13000	1000				22000
3268	Rooting hormone 0.6%	gram		25000					25000
3273	Round Up	ml						2000	2000
3030	Rovral 250 flow	ml	1000	2000	1000	1188	774		5962
3271	Runner	ml	42600	20000					62600
3958	Sesamin EC	ml							
4054	Siliconi	ml	858450	1261450	882650	185500	451200	473000	4112250
4098	Solucion	ml				720800			720800
4283	Spiroxamine	ml							
4223	Supramino Terra	ml		32500	25000	85000	170000	162500	475000
3127	Switch 62.5 WG	gram	239911	213997	2675	212475	1548	34248	704854
4186	Teflu 150 SC	ml							
3378	Teppeki 50 WG	gram	482625	230300	44550	142100	211200	146500	1257275
3187	Tracer 480 SC	ml	14400						14400
4005	Trianum-P	gram	16000	9650	8500	17000	20500	14500	86150
3913	Turex	gram							
4252	Vaselife Defend	ml							
4027	Velum SC500	ml							
3218	Victory 72 WP	gram	411900	521300	128600	22100			1083900
4197	Vidi Fortum	ml	39600	53800	37600	28000	36000	44000	239000
4196	Vidi Parva	ml	18200	29400	20400	14000	11000	22000	115000
4195	Vidi Terrum	ml	18200	29400	20400	14000	11000	22000	115000

ENERGY

4	Electricity usage (Total)	kWh			1147377	1126731			2274108
54	Diesel oil/fuel	litre	18900	12600	25556	19487	22050		98593
6	Green Electricity Usage	kWh							

FERTILIZERS

572	Ammonium Sulphate (21%)	kg						58,85	58,85
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OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/01**

Company name: Sher Ethiopia Plc. (total)

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

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

524	Borax (Boric Acid)	kg	13,256	5,286	1,139	76,189	1,084	1,3	98,254
504	Calcium nitrate	litre	130	900	80	800	800	800	3510
503	Calcium nitrate (nitrate of Lime)	kg	240,55	160,942	256,702	239,085	188,876	263,883	1350,038
506	Copper sulphate	kg	2,768	2,72	3,284	802,378	2,954	3,396	817,5
559	EDDHA chelated Iron	kg							
544	Eddha iron 6%	kg	18,443	43,936	10,31	9,992	9,5	11,717	103,898
525	Fe DTPA 6%	kg	12,758	22,9	5,985	5,729	5,461	6,817	59,65
521	Magnesium sulphate	kg	258,945	514,619	710,383	748,125	729,967	760,866	3722,905
513	Manganese sulphate	kg	13,256	5,286	5,139	5,189	5,084	5,3	39,254
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	75,813	102,8	66,625	115,5	89,039	66,75	516,527
514	Mono-potassium phosphate 0+52.29+33.98	kg	91,65	128,3	128,002	23	126,625	132,825	630,402
534	Natriummolybdaat	kg	41,947	16554556,8	44,528	42,88	39,022	46,756	16554771,933
550	Nitric Acid 54%	litre						49,735	49,735
551	Nitric Acid 68%	litre	53,266	273,955	99,304	187,915	178,57	140	933,01
515	Potassium nitrate 13+0+45	kg	31	155	175	200	210	200	971
533	Potassium Nitrate 13+0+46	kg	54,3	42,37	56,85	59,275	53,85	78,175	344,82
626	Potassium Phosphite 0+30+20	litre	2,649						2,649
517	Potassium sulphate	kg	44,3	133,75	130,9	26850	125,648	9,55	27294,148
655	PRiME	litre	1,623	0,15					1,773
537	Urea 46%	kg	51,209	185,05	1,113	163,975	215,135	120,105	736,587
501	Zinc sulphate	litre	2,768	3,376	2,484	2,378	2,154	2,596	15,756

ENVIRONMENTAL CLUSTERS

Indoor crops									
2014	ROSE	m2	5230000	5230000	5230000	5230000	5230000	5230000	
3014	ROSE par-mat	m2	15000	15000	15000	15000	15000	15000	
Subtotal			5245000	5245000	5245000	5245000	5245000	5245000	
Certified parental material									
661	MPS-ABC certif.parental mat. indoor	m2	5230000	5230000	5230000	5230000	5230000	5230000	

CO2 Indicator

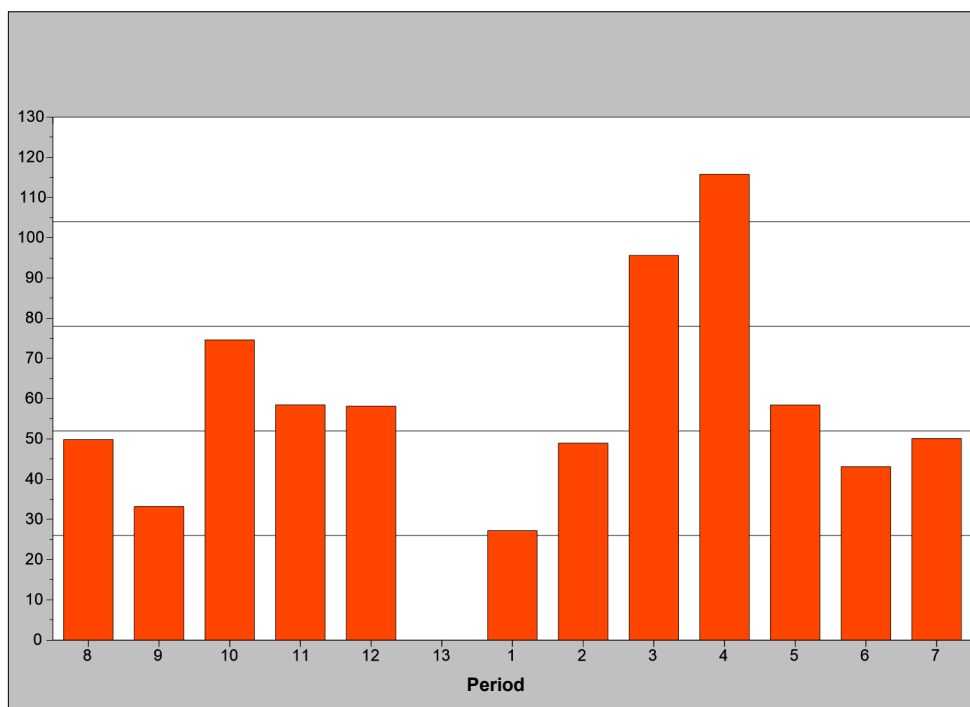
MPS company number: **802685/01**
 Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

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

Code		CO2 production (x 1000)
54	Diesel oil/fuel	702
4	Electricity usage (Total)	27
6	Green Electricity Usage	-16
Total		713

Review CO2-emission per period (x 1000 kg)



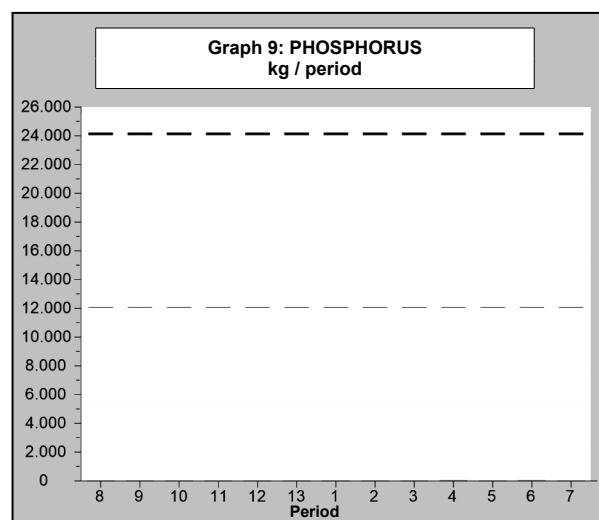
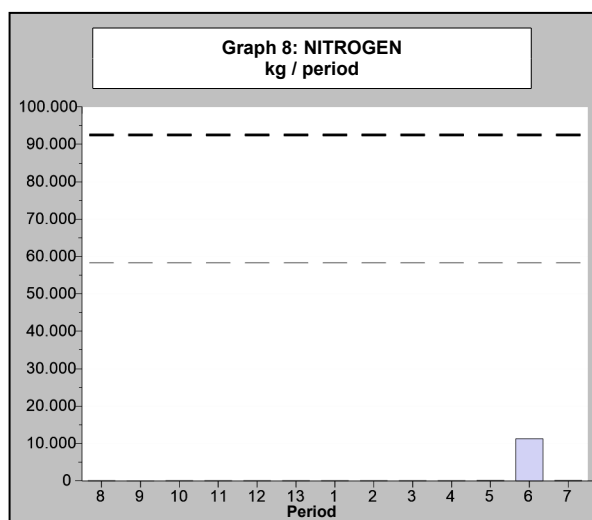
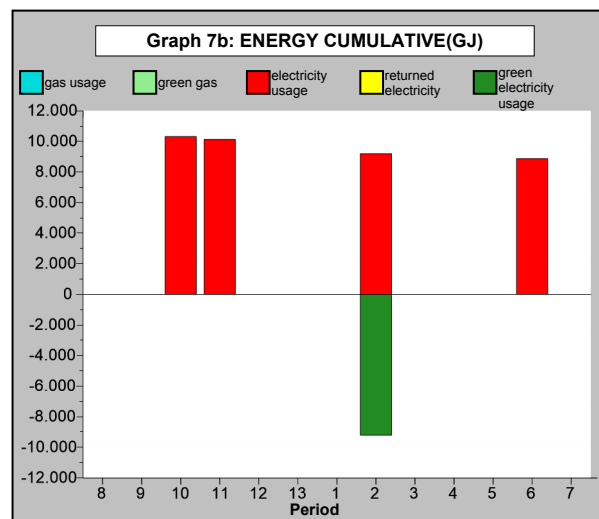
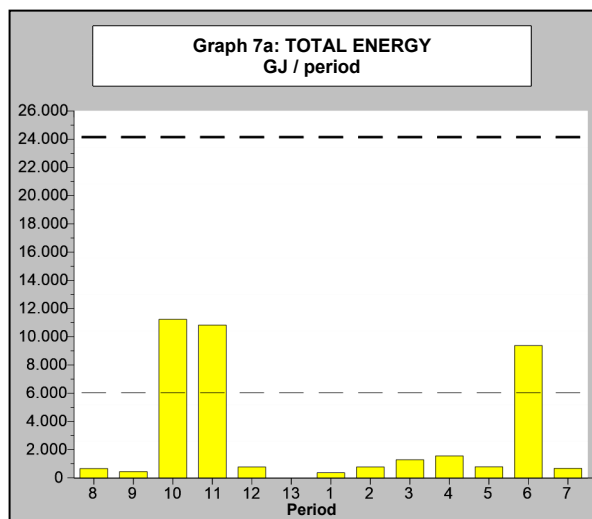
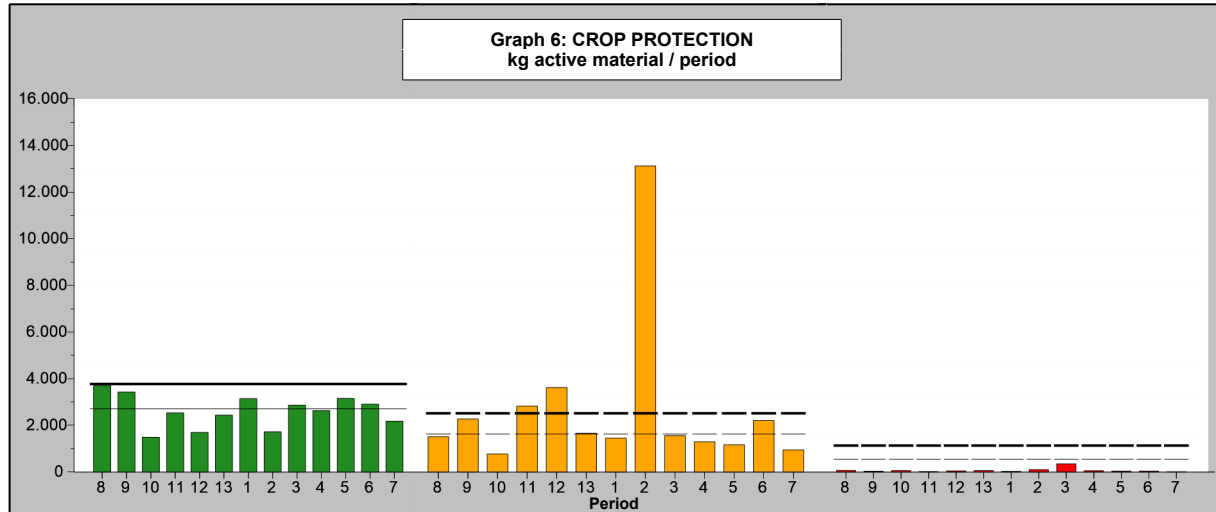
Disclaimer: the purpose of the above mentioned table and graphics is to give an insight in the CO2-emission on company level. The CO2 emission has been based on the energy consumption in GJ and the internationally accepted arithmetic rules. The calculation of the quantity in GJ is based on the calculation 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.

QUALIFICATION AND PERIOD GRAPHS

MPS company number: **802685/11**
Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
Version: 7-8-2018

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



MPS-Overview Composition of Qualification

MPS company number: **802685/11**
Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
Version: 7-8-2018

Overview Environmental zones

Period	8	9	10	11	12	13	1	2	3	4	5	6	7
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 unit use of active substance		
			Green	Amber	Red
Addit	○	vegetable oil			
Agrixy 407SL	●	metalaxyl		1,085	
	●	mono- and di- potassium salts of		6,200	
Aliette 80 WP	●	fosetyl-aluminium	542,320		
Biota-300	○	enzymen			
	○	plant extract			
Botridion 500 SC	●	iprodione			9,050
B-Wise 1.9 EC	●	emamectin benzoate		69,185	
Collis	●	boscalid	1029,299		
	●	kresoxim-methyl	514,649		
Conserve	●	spinosad	143,364		
Crop Guard 80	●	furfural		4951,600	
Dipel DF	○	bacillus thuringiensis			
Flipper	○	potassium salts and fatty acids			
Floramite 240 SC	●	bifenazate	419,544		
Fosetyl 80 WP	●	fosetyl-aluminium	201,360		
Freebac-Clearoxyl (Aquamar)	○	ethanol			
	○	glycerol			
	○	hydrogen peroxide			
Game 5% EC	●	lufenuron			15,030
Impulse	●	spiromaxine		22048,500	
Iprodione 500 SC	●	iprodione			9,000
Kaligreen	●	potassium bicarbonate	5532,795		
Kelpak	○	seaweed extract			
Lecatech	○	fungus			
Luna Tranquility	●	fluopyram	731,003		
	●	pyrimethanil		2186,539	
Mancozeb	●	mancozeb	10247,932		
Match 50 EC	●	lufenuron			160,686
Meltatox 40 EC	●	dodemorph	7572,878		
Movento OD 150	●	spirotetramat	2,828		
Mytech WP	○	paecilomyces lilacinus			
NEMguard TM	○	garlic extract			
Nomolt	●	teflubenzuron	437,436		
Optimus	○	plant extract			
Pencoazol 100 EC	●	penconazole			688,760
Previcur N	●	propamocarb hydrochloride	805,850		
Prima 1.9 EC	●	emamectin benzoate		22,468	
Proove 20 SL	●	imidacloprid			4,200
Proplant	●	propamocarb hydrochloride	72,200		
Prove 1.9 EC	●	emamectin benzoate		1,642	
Pymet 50 WG	●	pymetrozine		3741,875	
Revus	●	mandipropamid	42,173		
Rhizopon AA Powder 1 %	●	indolybutyric acid	0,540		
Rhizopon AA Water Soluble Tablets (I	●	indolybutyric acid	20,940		
Rift 20% SL	●	acetamiprid	824,310		
Rizolex 50 WP	●	tolclofos-methyl		37,890	
Rodimus	○	plant extract			

MPS-Overview Composition of Qualification

MPS company number: **802685/11**
 Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

Company usage of MPS-MIND

Pesticide	Indicator color	active ingredient	Annual company unit use of active substance		
			Green	Amber	Red
Round Up	●	glyphosate		0,720	
Runner	●	methoxyfenozone	133,992		
Sesamin EC	○	vegetable oil			
Siliconi	○	wetting/sticker agents other			
Solucion	○	wetting/sticker agents other			
Spiroxamine	●	spiroxamine		663,850	
Supramino Terra	○	amino and nucleic acids			
	○	humic acids			
Switch 62.5 WG	●	cyprodinil		305,073	
	●	fludioxonil	206,130		
Teflu 150 SC	●	teflubenzuron	181,740		
Teppeki 50 WG	●	flonicamid	1235,393		
Tracer 480 SC	●	spinosad	147,672		
Trianum-P	○	trichoderma harzianum			
Turex	○	bacillus thuringiensis			
Vaselife Defend	○	pretreatment			
Velum SC500	●	fluopyram	0,440		
Victory 72 WP	●	mancozeb	2830,592		
	●	metalaxyl		353,824	
Vidi Fortum	○	plant extract			
Vidi Parva	○	plant extract			
Vidi Terrum	○	plant extract			
Annual company unit use of active substance			33877,379	34390,451	886,726

OVERVIEW RECORDED DATA

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
FORM RECEIVED			yes	yes	yes	yes	yes	yes	yes		
CROP PROTECTION AGENTS											
3868	Addit	ml	129700	6300	158000					294000	487650
3851	AgrixyI 407SL	ml									15500
3108	Aliette 80 WP	gram			75500	247000	78200	166200	111000	677900	677900
4225	Biota-300	ml	47500							47500	250000
3860	Botridion 500 SC	ml			8500	9600				18100	18100
4214	B-Wise 1.9 EC	ml	152950	70500	180750	458400	634400	809500	412300	2718800	3641300
3167	Collis	ml	1130050	32500	18500	362200	29500	864700	374650	2812100	5146493
3226	Conserve	ml		187300	208500	26800				422600	1194700
4064	Crop Guard 80	ml		600000						600000	6189500
4168	Dipel DF	gram		3750	1026650	939400	369000			2338800	2338800
4221	Flipper	ml	7100	24000	42000					73100	423000
3117	Floramite 240 SC	ml	24500	43000	9000	108900	295500	182500	98900	762300	1748100
3395	Fosetyl 80 WP	gram						138900	112800	251700	251700
3981	Freebac-Clearoxyl (Aquamar)	ml	384000							384000	854000
4178	Game 5% EC	ml	88800					117600	83000	289400	300600
3174	Impulse	ml	1327600	23693300	2173200	1531100	1657500	2278600	1134600	33795900	44097000
3106	Iprodione 500 SC	ml						18000		18000	18000
4194	Kaligreen	gram	1112200	375800	67500	622000	687000	10800	17820	2893120	6755550
3345	Kelpak	ml			50000	50000				100000	1860000
4144	Lecatech	gram	2500	2750		3000				8250	11250
3988	Liquid Seal	ml			26700		45500	9600	13300	95100	452000
4034	Luna Tranquility	ml	303250	1606000	8000	527700	111000	78000	76000	2709950	6469050
3026	Mancozeb	gram	62800	822550	2132120	855030	12000	962650	797700	5644850	12809915
3014	Match 50 EC	ml	458740		183800	238600	561400	190500	4100	1637140	3213718
3073	Meltatox 40 EC	ml	4139100	821400	1601100	1437200	1299400	790400	2274900	12363500	18932196
3858	Movento OD 150	ml									18850
4237	Mytech WP	gram	500							500	938
4245	NEMguard TM	ml					7000		35000	42000	42000
3249	Nomolt	ml		218800	59000	671400	498400	35000	6800	1489400	2916241
4101	Optimus	ml	1825500	280000	49000				1578000	3732500	18314500
4215	Pencoool 100 EC	ml		974850	3331500	339800	94200	124000	73700	4938050	6887600
3120	Previcur N	ml	3000	14390	39929	162600	199400	56000	156800	632119	1116135
4239	Prima 1.9 EC	ml				660000		206500	303700	1170200	1170200
4018	Proove 20 SL	ml									21000
3044	Proplant	ml			96500	3500				100000	100000
3382	Prove 1.9 EC	ml				41600	43900			85500	85500
4216	Pymet 50 WG	gram	1329300	508750	840800	641400	214900	897750	270850	4703750	7483750

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
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CROP PROTECTION AGENTS (Continued)

3348	Revus	ml		6000	115900	59100				181000	181000
4043	Rhizopon AA Powder 1 %	gram			38500	11500	3500	500		54000	54000
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram			55700	49000				104700	104700
4185	Rift 20% SL	ml	434200	426400	586600	529150	604700	329200	113200	3023450	4121550
3183	Rizolex 50 WP	gram			75780					75780	75780
4275	Rodimus	ml							1800	1800	1800
3273	Round Up	ml									2000
3271	Runner	ml					324500	171200		495700	558300
3958	Sesamin EC	ml				100000				100000	100000
4054	Siliconi	ml	476100	502500	682350	694800	712350	9700	5000	3082800	7195050
4098	Solucion	ml									720800
4283	Spiroxamine	ml						935000	392700	1327700	1327700
4223	Supramino Terra	ml	45000						270000	315000	790000
3127	Switch 62.5 WG	gram	31500		26700		45500	15000	11200	129900	824521
4186	Teflu 150 SC	ml						768200	443400	1211600	1211600
3378	Teppeki 50 WG	gram	83310	144500	167700	181700	297500	277300	61500	1213510	2470785
3187	Tracer 480 SC	ml	20600		36900	34600	24300	145350	31500	293250	307650
4005	Trianum-P	gram	7500	116000	154000	890400	756500	535000	1280500	3739900	3826050
3913	Turex	gram						253000	719800	972800	972800
4252	Vaselife Defend	ml						5600		5600	5600
4027	Velum SC500	ml					880			880	880
3218	Victory 72 WP	gram				15600	2060800	1207300	55200	3338900	4422800
4197	Vidi Fortum	ml	24800							24800	263800
4196	Vidi Parva	ml	26200							26200	141200
4195	Vidi Terrum	ml	26200							26200	141200

WATER

21	Total irrigation	m3	12230	12651		11068	12994	12763	13017	74723	121744
23	Reused drainage water	m3	845	869		813	978	784	989	5278	8642

ENERGY

4	Electricity usage (Total)	kWh		1022820				986785		2009605	4283713
54	Diesel oil/fuel	litre	10312	22050	36250	43902	22160	13988	18998	167660	266253
6	Green Electricity Usage	kWh		1022820						1022820	1022820

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
FERTILIZERS											
572	Ammonium Sulphate (21%)	kg	19,875	10,65	27,3	26,335	11,33	29	31,225	155,715	164,565
524	Borax (Boric Acid)	kg	1,257	1,228	1,427	1338	1,378	1,181	1,317	1345,788	1363,442
503	Calcium nitrate (nitrate of Lime)	kg	278,85	246,803	279,6	286,44	415,35	322,805	268,693	2098,541	3448,579
506	Copper sulphate	kg	2,506	0,245	0,267	280,05	2,784	2,37	2,634	290,856	305,412
559	EDDHA chelated Iron	kg					40	35		75	75
544	Eddha iron 6%	kg	9,071	8,532	9,414	10,929	4,645	37,846	10,332	90,769	156,667
525	Fe DTPA 6%	kg	5,192	4,857	5,394	6,546	5,574	6,436	8,942	42,941	80,591
521	Magnesium sulphate	kg	124,71	126,052	144,975	159,511	169,725	133,794	239,452	1098,219	1891,124
513	Manganese sulphate	kg	1,251	1,228	1,427	1,342	1,378	1,181	1,317	9,124	26,778
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	15,425	31,816	13,1	19,025	18,469	63,91	5,089	166,834	259,361
514	Mono-potassium phosphate 0+52.29+33.98	kg	25,9	0,425	21,4	33,25	26,625	8,55	11,2	127,35	276,752
534	Natriummolybdaat	kg	18,403	18,042	0,486	48,014	4,952	42,452	47,634	179,983	16554950,716
550	Nitric Acid 54%	litre			40,04			71,965		112,005	161,74
551	Nitric Acid 68%	litre	57,26	54,145		73,22	49,875		124,185	358,685	532,595
533	Potassium Nitrate 13+0+46	kg	61,125	58,675	90,475	108,688	144,325	86075	129,43	86667,718	87012,538
626	Potassium Phosphite 0+30+20	litre									2,649
517	Potassium sulphate	kg					3,931	86,86	123,895	214,686	27100,334
655	PRiME	litre									1,773
537	Urea 46%	kg	3,5	1,963	0,38		11,846	12,254	3,911	33,854	103,441
501	Zinc sulphate	litre	2,506	0,245	0,267	2,805	2,784	2,37	2,618	13,595	28,151

ENVIRONMENTAL CLUSTERS

Indoor crops									
2014 ROSE	m2	5230000	5230000	5230000	5230000	5230000	5230000	5230000	
Subtotal		5230000	5230000	5230000	5230000	5230000	5230000	5230000	
Certified parental material									
661 MPS-ABC certif.parental mat. indoor	m2	5230000	5230000	5230000	5230000	5230000	5230000	5230000	

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

GENERAL INFORMATION FORM

MPS-Mind

Surface water

3900 What is the minimum distance of these fields to the nearest surface water? < 250 metres / < 820 feet

Cover

3910 Does the surface of covered crops exceed 95% of this part registration? Yes

Slope

3902 What is the maximum slope of a field in this part registration? 3 - 10%

Leaching to groundwater

3903 Do you grow more than 95% of your crops in a closed (recirculation) system, achieving less than 3% loss of drainwater? No

3904 What is the minimum depth of the groundwater, taken over all your fields? 3 - 15 metres / 9,8 - 49,2 feet

3905 What is the lowest percentage of organic matter of your soil, taken over all your fields of this part registration? 3 - 6%

3906 What is the average precipitation per annum? (if unknown, please leave blank) 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? (if unknown, please leave blank) > 20 degrees C / 68 degrees F

Water management

45 Is rainwater being collected? 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 Is organic waste being processed in a responsible way? Yes

42 Is paper being processed in a responsible way? Yes

43 Is plastic being processed in a responsible way? Yes

44 Is chemical waste being processed in a responsible way? Yes

OVERVIEW RECORDED DATA

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
FORM RECEIVED			yes	yes	yes	yes	yes	yes	
CROP PROTECTION AGENTS									
3868	Addit	ml	70000					123650	193650
3851	Agrixy 407SL	ml						15500	15500
3108	Aliette 80 WP	gram							
4225	Biota-300	ml		25000	14000	127500	36000		202500
3860	Botridion 500 SC	ml							
4214	B-Wise 1.9 EC	ml	109885	160715	158400	220400	138200	134900	922500
3167	Collis	ml	334050	566500	493	64800	576150	792400	2334393
3226	Conserve	ml	45900		21600	12200	600900	91500	772100
4064	Crop Guard 80	ml		900000	85000	2020000	2584500		5589500
4168	Dipel DF	gram							
4221	Flipper	ml		77200	22000		163500	87200	349900
3117	Floramite 240 SC	ml	31500	165300	568100	171900	45300	3700	985800
3395	Fosetyl 80 WP	gram							
3981	Freebac-Clearoxyl (Aquamar)	ml		23000	54000	72000	42000	279000	470000
4178	Game 5% EC	ml				4000		7200	11200
3174	Impulse	ml	1943400	1829000	1224400	1049300	2052000	2203000	10301100
3106	Iprodione 500 SC	ml							
4194	Kaligreen	gram	1201700	79000	220980	36000	984200	1340550	3862430
3345	Kelpak	ml	1620000	140000					1760000
4144	Lecatech	gram						3000	3000
3988	Liquid Seal	ml	136500	195900				24500	356900
4034	Luna Tranquility	ml	636600	887300	30000	1203000	472200	530000	3759100
3026	Mancozeb	gram	1921525	1809170	1320870	1976400	61200	75900	7165065
3014	Match 50 EC	ml	49500	149200	278	414100	402000	561500	1576578
3073	Meltatox 40 EC	ml	131300	2172800	2596	1293800	984100	1984100	6568696
3858	Movento OD 150	ml	18850						18850
4237	Mytech WP	gram						438	438
4245	NEMguard TM	ml							
3249	Nomolt	ml	53000	1022700	41	143200	34300	173600	1426841
4101	Optimus	ml	5055500	2145000	2626500	338000	1319000	3098000	14582000
4215	Pencozone 100 EC	ml	587700	259100	603000		219750	280000	1949550
3120	Previcur N	ml	432300	39000	116			12600	484016
4239	Prima 1.9 EC	ml							
4018	Proove 20 SL	ml	13000					8000	21000
3044	Proplant	ml							
3382	Prove 1.9 EC	ml							
4216	Pymet 50 WG	gram	399000	424750	125500	388850	725800	716100	2780000

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
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CROP PROTECTION AGENTS (Continued)

3348	Revus	ml							
4043	Rhizopon AA Powder 1 %	gram							
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram							
4185	Rift 20% SL	ml	184850	249850	20550	229800	127150	285900	1098100
3183	Rizolex 50 WP	gram							
4275	Rodimus	ml							
3273	Round Up	ml						2000	2000
3271	Runner	ml	42600	20000					62600
3958	Sesamin EC	ml							
4054	Siliconi	ml	858450	1261450	882650	185500	451200	473000	4112250
4098	Solucion	ml				720800			720800
4283	Spiroxamine	ml							
4223	Supramino Terra	ml		32500	25000	85000	170000	162500	475000
3127	Switch 62.5 WG	gram	238723	213400	299	210099		32100	694621
4186	Teflu 150 SC	ml							
3378	Teppeki 50 WG	gram	482625	230300	44550	142100	211200	146500	1257275
3187	Tracer 480 SC	ml	14400						14400
4005	Trianum-P	gram	16000	9650	8500	17000	20500	14500	86150
3913	Turex	gram							
4252	Vaselife Defend	ml							
4027	Velum SC500	ml							
3218	Victory 72 WP	gram	411900	521300	128600	22100			1083900
4197	Vidi Fortum	ml	39600	53800	37600	28000	36000	44000	239000
4196	Vidi Parva	ml	18200	29400	20400	14000	11000	22000	115000
4195	Vidi Terrum	ml	18200	29400	20400	14000	11000	22000	115000

WATER

21	Total irrigation	m3	10638		11554	13106	11723		47021
23	Reused drainage water	m3	919		779	680	986		3364

ENERGY

4	Electricity usage (Total)	kWh			1147377	1126731			2274108
54	Diesel oil/fuel	litre	18900	12600	25556	19487	22050		98593
6	Green Electricity Usage	kWh							

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/11**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
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FERTILIZERS

572	Ammonium Sulphate (21%)	kg						8,85	8,85
524	Borax (Boric Acid)	kg	11,656	1,286	1,139	1,189	1,084	1,3	17,654
503	Calcium nitrate (nitrate of Lime)	kg	240,55	160,942	256,702	239,085	188,876	263,883	1350,038
506	Copper sulphate	kg	2,368	2,576	2,484	2,378	2,154	2,596	14,556
559	EDDHA chelated Iron	kg							
544	Eddha iron 6%	kg	12,443	11,936	10,31	9,992	9,5	11,717	65,898
525	Fe DTPA 6%	kg	6,758	6,9	5,985	5,729	5,461	6,817	37,65
521	Magnesium sulphate	kg	178,945	14,619	160,383	148,125	129,967	160,866	792,905
513	Manganese sulphate	kg	11,656	1,286	1,139	1,189	1,084	1,3	17,654
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	13,813	15,8	16,625	15,5	14,039	16,75	92,527
514	Mono-potassium phosphate 0+52.29+33.98	kg	10,65	28,3	28,002	23	26,625	32,825	149,402
534	Natriummolybdaat	kg	41,547	16554556	44,528	42,88	39,022	46,756	16554770,733
550	Nitric Acid 54%	litre						49,735	49,735
551	Nitric Acid 68%	litre	18,166	39,955	29,304	47,915	38,57		173,91
533	Potassium Nitrate 13+0+46	kg	54,3	42,37	56,85	59,275	53,85	78,175	344,82
626	Potassium Phosphite 0+30+20	litre	2,649						2,649
517	Potassium sulphate	kg	35,8	33,75	30,9	26750	25,648	9,55	26885,648
655	PRiME	litre	1,623	0,15					1,773
537	Urea 46%	kg	14,209	5,05	1,113	13,975	15,135	20,105	69,587
501	Zinc sulphate	litre	2,368	2,576	2,484	2,378	2,154	2,596	14,556

ENVIRONMENTAL CLUSTERS

Indoor crops								
2014 ROSE	m2	5230000	5230000	5230000	5230000	5230000	5230000	
Subtotal		5230000	5230000	5230000	5230000	5230000	5230000	
Certified parental material								
661 MPS-ABC certif.parental mat. indoor	m2	5230000	5230000	5230000	5230000	5230000	5230000	

CO2 Indicator

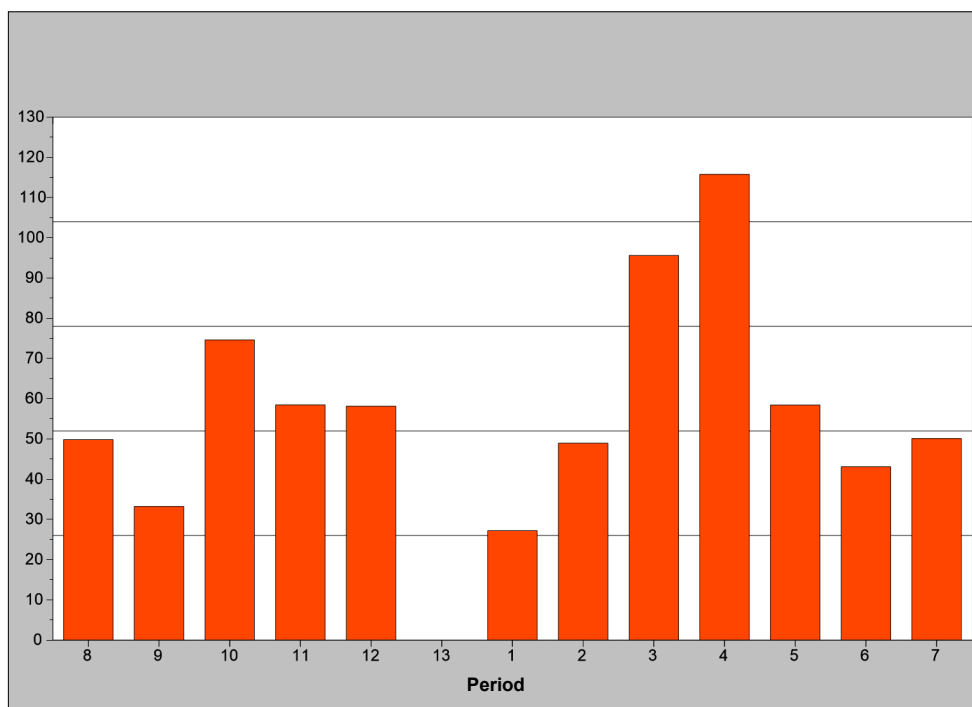
MPS company number: **802685/11**
 Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

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

Code		CO2 production (x 1000)
54	Diesel oil/fuel	702
4	Electricity usage (Total)	27
6	Green Electricity Usage	-16
Total		713

Review CO2-emission per period (x 1000 kg)



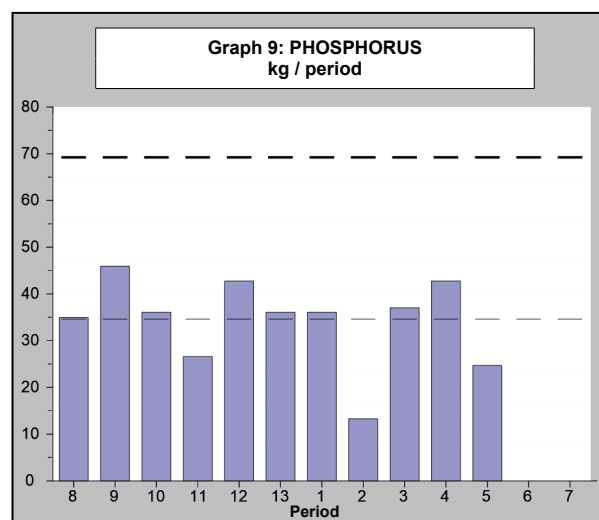
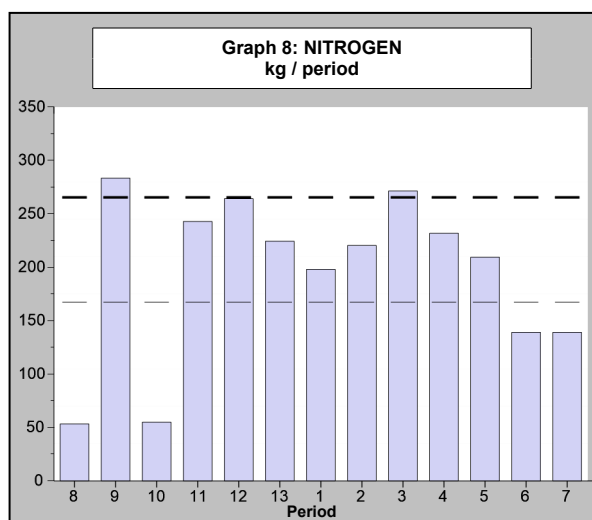
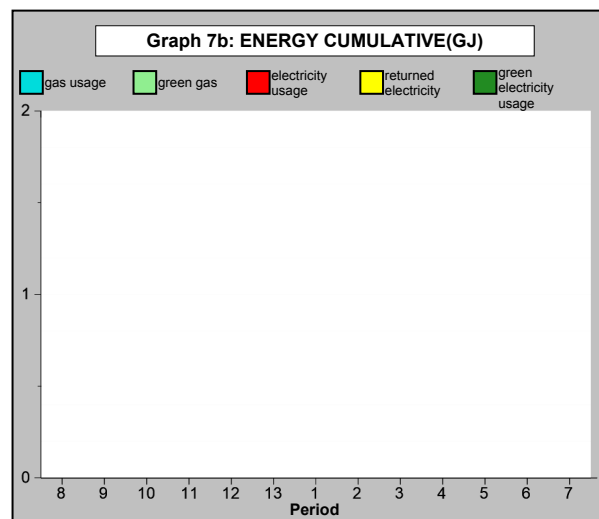
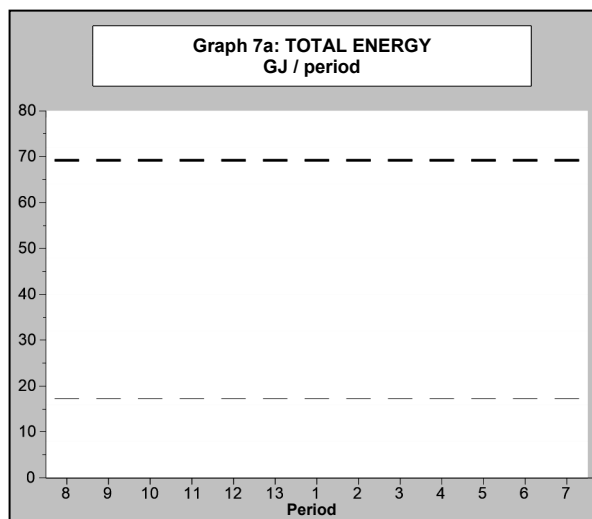
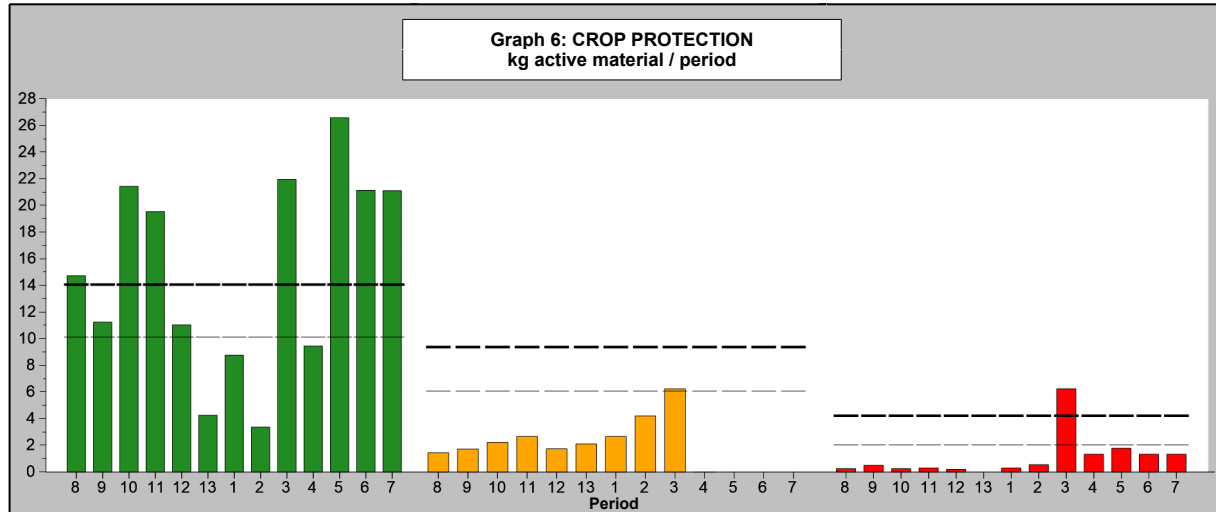
Disclaimer: the purpose of the above mentioned table and graphics is to give an insight in the CO2-emission on company level. The CO2 emission has been based on the energy consumption in GJ and the internationally accepted arithmetic rules. The calculation of the quantity in GJ is based on the calculation 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.

QUALIFICATION AND PERIOD GRAPHS

MPS company number: **802685/12**
 Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

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



MPS-Overview Composition of Qualification

MPS company number: **802685/12**
 Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
 Version: 7-8-2018

Overview Environmental zones

Period	8	9	10	11	12	13	1	2	3	4	5	6	7
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 unit use of active substance		
			Green	Amber	Red
Goldazim	●	carbendazim		10,199	
Ippon	●	iprodione			6,235
Mancozeb	●	mancozeb	110,128		
M-Zeb 80 WP	●	mancozeb	22,016		
Previcur N	●	propamocarb hydrochloride	31,321		
Rhizopon AA Powder 1 %	●	indolylbutyric acid	0,890		
Rhizopon AA Water Soluble Tablets (I	●	indolylbutyric acid	26,048		
Rizolex 50 WP	●	tolclofos-methyl		9,234	
Rooting hormone 0.4%	●	indolylbutyric acid	0,216		
Rooting hormone 0.6%	●	indolylbutyric acid	0,150		
Rovral 250 flow	●	iprodione			8,116
Switch 62.5 WG	●	cyprodinil		5,544	
	●	fludioxonil	3,746		
Teppeki 50 WG	●	flonicamid	0,091		
Victory 72 WP	●	mancozeb	0,010		
	●	metalaxyl		0,001	
Annual company unit use of active substance			194,616	24,977	14,351

OVERVIEW RECORDED DATA

MPS company number: **802685/12**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
FORM RECEIVED			yes	yes	yes	yes	yes	yes	yes		
CROP PROTECTION AGENTS											
3023	Goldazim	ml	2376	1785	6979					11140	20397
3175	Ippon	ml			12470					12470	12470
3026	Mancozeb	gram			23240		23240	19960	19960	86400	137660
4224	M-Zeb 80 WP	gram									27520
3120	Previcur N	ml	3560	2670		7120	7120	5340	5340	31150	43381
4043	Rhizopon AA Powder 1 %	gram		4000	16000	12000		12000	6000	50000	89000
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram	28000	4000	16000	20240	14000	6000	6000	94240	130240
3183	Rizolex 50 WP	gram	1188	4861	5495					11544	18468
3267	Rooting hormone 0.4%	gram				12000	14000		6000	32000	54000
3268	Rooting hormone 0.6%	gram									25000
3030	Rovral 250 flow	ml	1188	2174		5340	7120	5340	5340	26502	32464
3127	Switch 62.5 WG	gram	2376	2374						4750	14983
3378	Teppeki 50 WG	gram				182				182	182
3218	Victory 72 WP	gram				16				16	16
FERTILIZERS											
572	Ammonium Sulphate (21%)	kg	50	100	100	75	50			375	425
524	Borax (Boric Acid)	kg	4	4	4,9	5	4	3,5	3,5	28,9	109,5
504	Calcium nitrate	litre		800				600	600	2000	5510
503	Calcium nitrate (nitrate of Lime)	kg	800		900	750	650			3100	3100
506	Copper sulphate	kg	0,8	0,8	0,9	1	0,8	0,7	0,7	5,7	808,644
544	Eddha iron 6%	kg	32	32	37	47	32	24	24	228	266
525	Fe DTPA 6%	kg	16	16	6	28	16	18	18	118	140
521	Magnesium sulphate	kg	600	450	450	350	300	250	250	2650	5580
513	Manganese sulphate	kg	4	4	4,9	5	4	3,5	3,5	28,9	50,5
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	50	50	75	75	50			300	724
514	Mono-potassium phosphate 0+52.29+33.98	kg	100		75	100	50			325	806
534	Natriummolybdaat	kg	0,144	0,144	0,1	0,18	0,144	0,426	0,426	1,564	2,764
551	Nitric Acid 68%	litre	140	280	280	245	280	140	140	1505	2264,1
515	Potassium nitrate 13+0+45	kg	200	200	300	275	225	225	225	1650	2621
517	Potassium sulphate	kg									408,5
537	Urea 46%	kg									667
501	Zinc sulphate	litre	0,8	0,8		1	0,8	0,7	0,7	4,8	6

OVERVIEW RECORDED DATA (Continued)

MPS company number: **802685/12**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Subtotal	Year total
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ENVIRONMENTAL CLUSTERS

Indoor crops											
3014	ROSE par-mat	m2	15000	15000	15000	15000	15000	15000	15000		
	Subtotal		15000	15000	15000	15000	15000	15000	15000		

GENERAL INFORMATION FORM

MPS-Mind

Surface water

3900 What is the minimum distance of these fields to the nearest surface water? < 250 metres / < 820 feet

Cover

3910 Does the surface of covered crops exceed 95% of this part registration? Yes

Slope

3902 What is the maximum slope of a field in this part registration? flat

Leaching to groundwater

3903 Do you grow more than 95% of your crops in a closed (recirculation) system, achieving less than 3% loss of drainwater? No

3904 What is the minimum depth of the groundwater, taken over all your fields? >= 15 metres / >= 49,2 feet

3905 What is the lowest percentage of organic matter of your soil, taken over all your fields of this part registration? < 1,5%

3906 What is the average precipitation per annum? (if unknown, please leave blank) < 600 mm annually / < 23 inch annual

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

3908 What is the average day and night temperature over a whole year? (if unknown, please leave blank) < 20 degrees C / 68 degrees F

Water management

45 Is rainwater being collected? 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 Is organic waste being processed in a responsible way? Yes

42 Is paper being processed in a responsible way? Yes

43 Is plastic being processed in a responsible way? Yes

44 Is chemical waste being processed in a responsible way? Yes

OVERVIEW RECORDED DATA

MPS company number: **802685/12**

Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018

Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
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FORM RECEIVED

yes yes yes yes yes yes

CROP PROTECTION AGENTS

3023	Goldazim	ml	1000	1000	1782	2376	1548	1551	9257
3175	Ippon	ml							
3026	Mancozeb	gram			19740	20240	11280		51260
4224	M-Zeb 80 WP	gram	13900	13620					27520
3120	Previcur N	ml			3560	3670	2140	2861	12231
4043	Rhizopon AA Powder 1 %	gram	8000		8000	10000	8000	5000	39000
3208	Rhizopon AA Water Soluble Tablets (IBA)	gram	16000		12000			8000	36000
3183	Rizolex 50 WP	gram	1000	2000	891	1188	774	1071	6924
3267	Rooting hormone 0.4%	gram	8000	13000	1000				22000
3268	Rooting hormone 0.6%	gram		25000					25000
3030	Rovral 250 flow	ml	1000	2000	1000	1188	774		5962
3127	Switch 62.5 WG	gram	1188	597	2376	2376	1548	2148	10233
3378	Teppeki 50 WG	gram							
3218	Victory 72 WP	gram							

FERTILIZERS

572	Ammonium Sulphate (21%)	kg						50	50
524	Borax (Boric Acid)	kg	1,6	4		75			80,6
504	Calcium nitrate	litre	130	900	80	800	800	800	3510
503	Calcium nitrate (nitrate of Lime)	kg							
506	Copper sulphate	kg	0,4	0,144	0,8	800	0,8	0,8	802,944
544	Eddha iron 6%	kg	6	32					38
525	Fe DTPA 6%	kg	6	16					22
521	Magnesium sulphate	kg	80	500	550	600	600	600	2930
513	Manganese sulphate	kg	1,6	4	4	4	4	4	21,6
529	Mono-Ammonium Phosphate (MAP) 12+61+0	kg	62	87	50	100	75	50	424
514	Mono-potassium phosphate 0+52.29+33.98	kg	81	100	100		100	100	481
534	Natriummolybdaat	kg	0,4	0,8					1,2
551	Nitric Acid 68%	litre	35,1	234	70	140	140	140	759,1
515	Potassium nitrate 13+0+45	kg	31	155	175	200	210	200	971
517	Potassium sulphate	kg	8,5	100	100	100	100		408,5
537	Urea 46%	kg	37	180		150	200	100	667
501	Zinc sulphate	litre	0,4	0,8					1,2

OVERVIEW RECORDED DATA (Continued)

MPS company number: 802685/12
Company name: Sher Ethiopia Plc.

Valid: Period 8-2017 until Period 7-2018
Version: 7-8-2018

Code	Description	Unit	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Subtotal
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ENVIRONMENTAL CLUSTERS

Indoor crops									
3014 ROSE par-mat	m2		15000	15000	15000	15000	15000	15000	
Subtotal			15000	15000	15000	15000	15000	15000	