



Knowledge grows

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Yara's global presence makes a world of difference

Timing is everything

Yara works closely with researchers and farmers all over the world gaining invaluable experience on how best to use our fertilizers. We know that rate and timing of product application - taking into account nutrient availability from the soil, crop residues and manures - is essential to ensure growth and crop quality is not compromised. As a result, you can be sure that the advice you will be given will provide you with high yields of highly-marketable, premium grade produce.

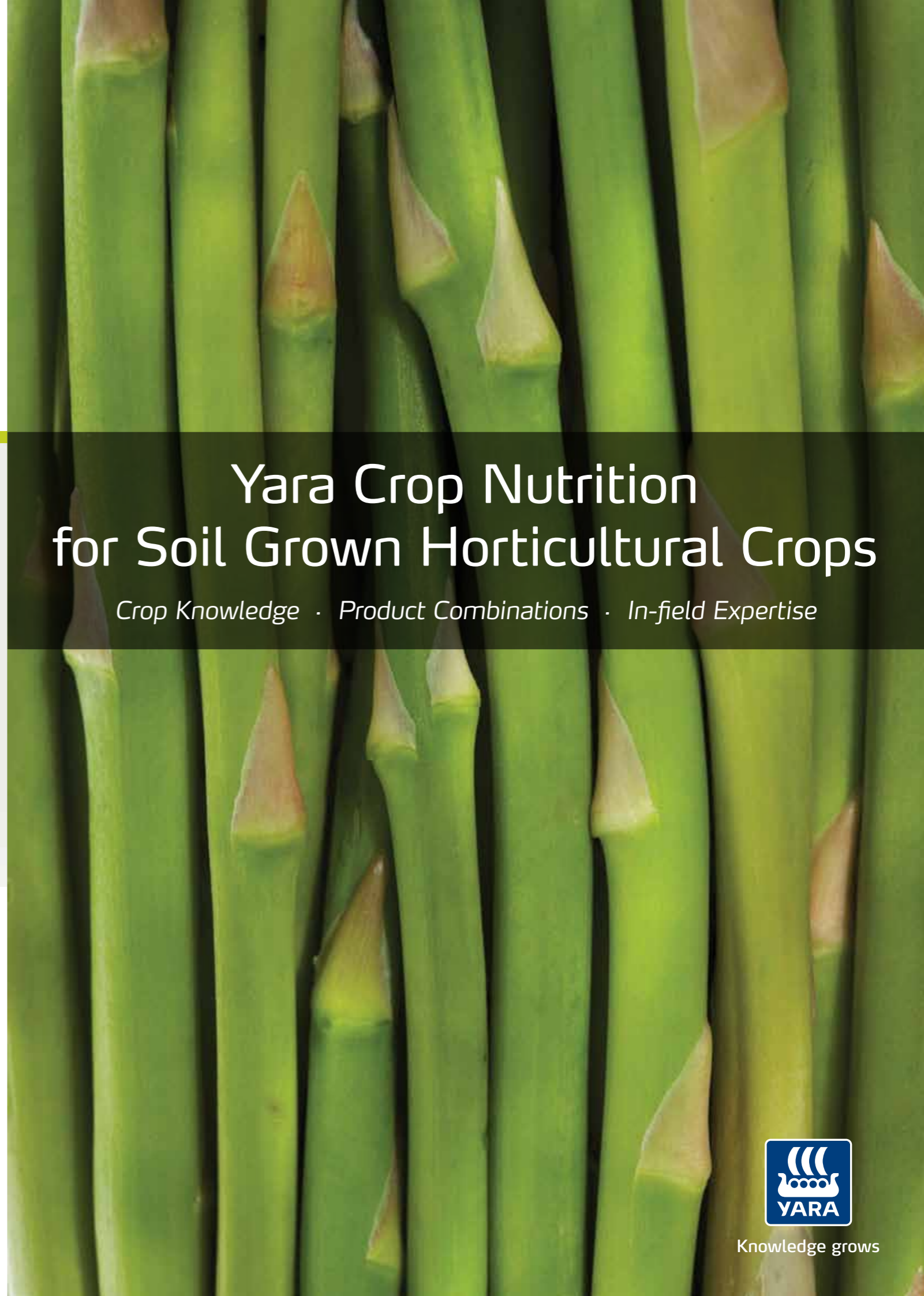


Yara Crop Nutrition for Soil Grown Horticultural Crops

Crop Knowledge · Product Combinations · In-field Expertise



Knowledge grows



The Nutrition of Soil Grown Horticultural Crops

Contents

Crop Knowledge

The interpretation and application of long term research trials data into robust and reliable crop nutrition programmes.

Product Combinations

Utilising Yara's range of products to provide a complete programme to meet the plant nutrient demand

In-field Expertise

Yara has developed a range of decision making tools and analytical services that enable nutrient recommendations to be fine tuned to field specific conditions.



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Protected Crops

Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Aubergines	Seedbed	YaraMila Grower	283	42	25	57	11
	Top Dressing (every 2 weeks)	YaraMila Grower	133	20	12	27	5
Celery	Seedbed	YaraMila Grower	283	42	25	57	11
	2 weeks after planting	YaraLiva Tropicote	323	50			
	6 weeks after planting	YaraLiva Tropicote	323	50			
Cucumber	Seedbed	YaraMila Grower	283	42	25	57	11
	Seedbed	Granular-SOP	50	0	0	26	9
	Top Dressing (every 2 weeks)	YaraMila Complex	115	14	13	21	9
					56	38	104
Courgettes	Seedbed	YaraMila Grower	283	42	25	57	11
Lettuce - spring & summer planting - autumn planted	Seedbed	YaraMila Complex	229	27	25	41	8
	Seedbed	YaraMila Grower	183	27	16	37	7
Melons	Seedbed	YaraMila Grower	283	42	25	57	11
	Seedbed	Granular SOP	125	0	0	64	23
	Top Dressing (every 2 weeks)	YaraMila Complex	115	14	13	21	9
					56	38	142
Peppers	Seedbed	YaraMila Grower	250	38	23	50	10
	Top Dressing (every 2 weeks)	YaraMila Grower	133	20	12	27	5
					58	35	77
Tomatoes	Seedbed	YaraMila Grower	283	42	25	57	11
	Seedbed	Granular SOP	100	0	0	51	18
	2 weeks after planting from 4 weeks after planting (every 2 weeks)	YaraMila Grower	67	10	6	13	3
		YaraMila Grower	133	20	12	27	5
Flower crops	Seedbed	YaraMila Grower	283	42	25	57	11

This information to the best of Yara's knowledge and belief is accurate. Recommendations and results stated are based upon Yara's experience and on field trial results. It is important to adapt recommendations according to local conditions such as soil type, climate, variety and season.

Yara Analytical Services. (soil, plant & tissue, water, nutrient).
Please call 01759 305116

Field Grown Ornamental Crops



Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Nursery Stock (first year)	Seedbed	YaraMila Grower	333	50	30	67	13
	Top-dressing	YaraLiva Tropicote	323	50	30	67	13
Nursery Stock (2nd year on)	Seedbed	YaraMila Grower	167	25	15	33	6
	Top-dressing	YaraLiva Tropicote	645	100	15	33	6
Bedding Plants	Seedbed	YaraMila Grower	467	70	42	93	18
Chrysanthemums and other flowers	Seedbed	YaraMila Grower	467	70	42	93	18
Herbaceous perennials	Seedbed	YaraMila Grower	467	70	42	93	18
Narcissus	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Tropicote	323	50	63	140	27
Tulips	Seedbed	YaraMila Grower	467	70	42	93	18

Brassica Crops



Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Brussel Sprouts	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	1371	211	63	140	27
Cabbage - Spring	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	1613	248	45	100	19
- Summer/autumn/chinese	Seedbed	YaraMila Grower	700	105	63	140	27
	Seedbed Top-dressing	Granular SOP YaraLiva Nitabor	150 1200	0 185	0 63	77 217	27 54
- Winter/savoy (cut pre Christmas)	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	1371	211	63	140	27
- Winter/savoy (cut post Christmas)	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	806	124	63	140	27
- Winter white	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	967	149	63	140	27

Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Calabrese	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	1129	174	63	140	27
Cauliflower - Summer/autumn	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	967	149	63	140	27
- Overwintered Roscoff & hardy types	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	1290	199	45	100	19
Radish	Seedbed	YaraMila Grower	233	35	21	47	9
	Seedbed	Granular SOP	100	0	0	51	18
	Top-dressing	YaraLiva Nitabor	161	25	21	98	27
Swedes & turnips	Seedbed	YaraMila Grower	333	50	30	67	13
	Top-dressing	YaraLiva Nitabor	323	50	30	67	13



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Outdoor Vegetable Crops



Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Asparagus - Newly planted	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	150	23	98	45	19
- Established	Seedbed	YaraMila Grower	333	50	30	67	13
	Top-dressing	YaraLiva Nitabor	484	75	125	30	67
Beans, Broad	Seedbed	YaraMila Grower	167	25	15	33	6
Beans, French/ Runner	Seedbed	YaraMila Complex	875	105	96	158	70
	Top-dressing	YaraLiva Nitabor	484	75	180	96	158
Beetroot	Seedbed	YaraMila Grower	700	105	63	140	27
	Top-dressing	YaraLiva Nitabor	1129	174	279	63	140
Carrots (except fen peats)	Seedbed	YaraMila Complex	450	54	50	81	17
	Seedbed	Granular SOP	450	0	0	230	81
	Top-dressing	YaraLiva Nitabor	350	54	108	50	311
Celery	Seedbed	YaraMila Complex	550	66	61	99	21
	Seedbed	Granular SOP	350	0	0	179	63
	Top-dressing	YaraLiva Nitabor	968	149	215	61	278

Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Courgettes	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	645	99	45	100	19
Leeks - Grown on Fen Peat - Grown on all other soils	Seedbed	YaraMila Grower	400	60	36	80	15
	Seedbed	YaraMila Complex	875	105	96	158	70
	Seedbed	Granular SOP	100	0	0	51	18
	Top-dressing	YaraLiva Nitabor	600	92	197	96	209
Lettuce (Spring & Summer)	Seedbed	YaraMila Complex	416	50	46	75	33
	Seedbed	Granular SOP	200	0	0	102	36
	Top-dressing	YaraLiva Nitabor	1129	174	46	177	69
Marrows	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	645	99	45	100	19
Onions - Salad	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	645	99	45	100	19
- Bulb/spring	Seedbed	YaraMila Grower	467	70	42	93	18
	Seedbed	Granular SOP	100	0	0	51	18
	Top-dressing	YaraLiva Nitabor	400	62	132	42	144
Bulb overwintered	Seedbed	YaraMila Grower	167	25	15	33	6
	Top-dressing	YaraLiva Nitabor	1129	174	199	15	33
Parsnips	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	484	75	150	45	100
Rhubarb - 1st year	Seedbed	YaraMila Grower	875	131	79	175	33
	Top-dressing	YaraLiva Nitabor	323	50	181	79	175
- Established	Seedbed	YaraMila Grower	875	131	79	175	33
	Top-dressing	YaraLiva Nitabor	968	149	280	79	175
- Forcing	Seedbed	YaraMila Grower	875	131	79	175	33
	Top-dressing	YaraLiva Nitabor	1935	298	429	79	175
Spinach (summer)	Seedbed	YaraMila Grower	875	131	79	175	33
	Top-dressing	YaraLiva Nitabor	350	54	185	79	175
Sweetcorn	Seedbed	YaraMila Grower	500	75	45	100	19
	Top-dressing	YaraLiva Nitabor	484	75	150	45	100



Soft and Top Fruit Crops



Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Apples - Culinary/cider	Pre-Planting	YaraMila Complex	300	36	33	54	24
	Top-dressing	YaraLiva Tropicote	645	100	33	54	24
- Dessert	Pre-Planting	YaraMila Complex	300	36	33	54	24
	Top-dressing	YaraLiva Tropicote	484	75	33	54	24
Blackberries	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	484	75	24	53	10
Blackcurrants	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	806	125	24	53	10
Cherries	Pre-Planting	YaraMila Complex	300	36	33	54	24
	Top-dressing	YaraLiva Tropicote	806	125	33	54	24

Crop	Stage	Product	Total Kg/ha	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	S Kg/ha
Gooseberries	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	484	75	24	53	10
Loganberries	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	484	75	24	53	10
Pears	Pre-Planting	YaraMila Complex	300	36	33	54	24
	Top-dressing	YaraLiva Tropicote	806	125	33	54	24
Plums	Pre-Planting	YaraMila Complex	300	36	33	54	24
	Top-dressing	YaraLiva Tropicote	806	125	33	54	24
Raspberries	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	484	75	24	53	10
Redcurrants	Pre-Planting	YaraMila Grower	267	40	24	53	10
	Top-dressing	YaraLiva Tropicote	484	75	24	53	10
Strawberries - June bearers	Pre-Planting	YaraMila Grower	167	25	15	33	6
	Top-dressing	YaraLiva Tropicote	242	38	15	33	6
- Everbearers	Pre-Planting	YaraMila Grower	167	25	15	33	6
	Top-dressing	YaraLiva Tropicote	323	50	15	33	6
Vines	Pre-Planting	YaraMila Grower	167	25	15	33	6
	Top-dressing	YaraLiva Tropicote	161	25	15	33	6



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Removal Data

Crop	Total fresh matter (t/ha)	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha	Marketable yield (t/ha)	N Kg/ha	P ₂ O ₅ Kg/ha	K ₂ O Kg/ha
Bean	35	119	32	152	15	38	14	45
Broccoli	90	333	95	436	20	90	30	92
Brussels sprouts	90	423	138	555	25	163	49	166
Carrot	100	170	82	496	80	104	64	339
Cauliflower	100	320	110	399	40	112	41	145
Celery	75	203	94	427	50	125	74	272
Chinese cabbage	120	192	99	392	70	105	64	212
Cucumber	120	204	110	407	70	105	48	169
Florence fennel	70	168	55	356	40	80	27	194
Iceberg	80	104	46	242	60	78	34	182
Kale	45	207	71	278	20	120	37	109
Kohlrabi	60	180	62	254	45	126	46	191
Leek	70	182	56	263	55	138	44	200
Lettuce	60	108	41	218	50	90	34	182
Onion	65	124	51	157	60	108	48	145
Radicchio	50	125	46	242	25	63	23	121
Radish	35	70	24	119	30	60	21	102
Red beet	100	270	98	557	60	168	69	290
Red cabbage	90	234	76	348	50	110	40	182
Savoy cabbage	80	304	92	348	40	140	46	155
Spinach	40	144	46	266	30	108	34	200
White cabbage	120	276	91	392	80	160	59	252

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Yara's Range of Products



YaraMila™

COMPLEX
12:11:18 SOP + Mg +
trace elements

Field grade complex compound
fertilizer SOP based + Mg + trace
elements

Product Specification

Total N - 12,0%
Total P₂O₅ - 11,0%
Total K₂O - 18,0%
Total MgO - 2,7%
Sulphur (S) - 8,0%
Manganese - 0,020%
Iron - 0,20%
Zinc - 0,020%
Boron - 0,015%
Bulk density - Loose 1.14kg/l
Granulometry - (2-4mm) 88%
Colour - green



YaraMila™

GROWER
15:9:20 + S + Mg +
trace elements

Field grade NPK compound
fertilizer, 35% SOP 65% MOP,
with Sulphur, Magnesium, Boron,
Manganese and Zinc.

Product Specification

Total N - 15,0%
Total P₂O₅ - 9,0%
Total K₂O - 20%
Magnesium (MgO) - 1,80%
Sulphur (SO₃) - 9,50%
Boron (B) - 0,015%
Manganese (Mn) - 0,02%
Zinc (Zn) - 0,02%
Bulk Density - Loose 1.08 kg/l
Granulometry - (ISO) 85% 2-4 mm
Colour - green



YaraLiva™

TROPICOTE™
15.5%N + 19%Ca

Field grade Calcium Nitrate

Product Specification

Total N - 15,5%
Nitrate-N - 14,4%
Ammoniacal-N - 1,1%
Calcium (CaO) - 26,3%
Bulk density - Loose 1.1kg/l
Granulometry - (ISO) 90% 2-4mm
Colour - white



YaraLiva™

NITRABOR™

15.4%N + 18.3%Ca + 0.3%B

Field Grade Calcium Nitrate plus Boron

Product Specification

Product Specification

Total N - 15.4%

Nitrate - N - 14.1%

Ammoniacal-N - 1.3%

Calcium (CaO) - 25.9%

Bulk density - loose 1.1kg/l

Granulometry - (ISO) 90% 2-4mm

Colour - Yellow



Granular SOP

51%K₂O + 18%S

Field grade Potassium Sulphate

Product Specification

Total K₂O - 51%

Total S - 18%

Bulk density - loose 1.48 kg/l

Granule size - 2-4mm chips

Colour - white

