

# Assessment of Fertilizer Use by Crop at the Global Level

*2010-2010/11*

Patrick Heffer  
International Fertilizer Industry Association (IFA)

International Fertilizer Industry Association (IFA) - 28, rue Marbeuf - 75008 Paris - France  
Tel. +33 1 53 93 05 00 - Fax +33 1 53 93 05 45/47 - ifa@fertilizer.org - www.fertilizer.org

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### ***Introductory and Explanatory Notes***

Fully understanding the contribution of the different crop types to fertilizer use at the national, regional and global levels is an essential component of fertilizer market analysis and a prerequisite to the development of sound fertilizer demand forecasts. However, this information is rarely available, challenging to collect, and time-consuming to process. In order to fill the gap, the International Fertilizer Industry Association (IFA) carries out surveys on fertilizer use by crop in the main fertilizer-consuming countries.

The previous assessment was published in 2009 and referred to the 2007-2007/08 campaign. Four countries have been added in this update: Belarus, Japan, Ukraine and Uzbekistan. Moreover, the crop breakdown has been fine-tuned, with the addition of the roots & tubers category, and the split of fruits & vegetables into two distinct categories.

IFA's country estimates currently cover 27 countries (considering the EU-27 as a single country). These countries, account together for 94% of world fertilizer consumption.

In this assessment, crops have been divided into 13 groups as follows:

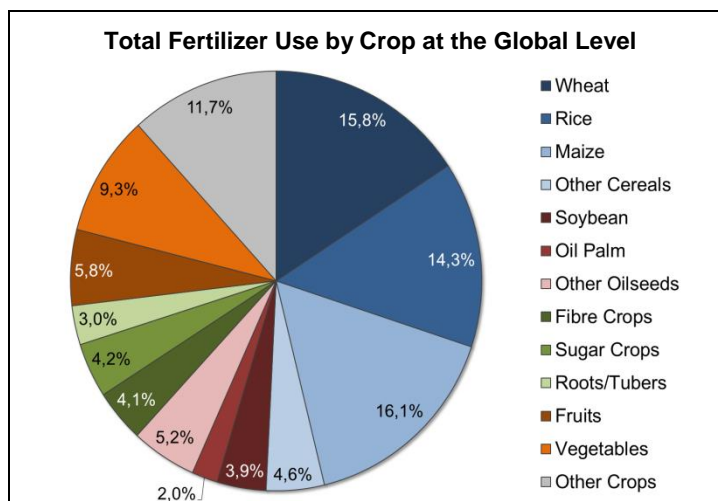
1. Wheat;
2. Rice;
3. Maize;
4. Other Cereals: barley, oats, rye, triticale, sorghum, millet, etc.;
5. Soybean;
6. Oil Palm;
7. Other Oilseeds: rapeseed/canola, mustard, sunflower, groundnut, coconut, etc.;
8. Fibre Crops: cotton, flax, jute, etc.;
9. Sugar Crops: sugar cane and sugar beet;
10. Roots & Tubers: potato, cassava, sweet potato, yam, etc.;
11. Fruits;
12. Vegetables;
13. Other Crops: grassland, pulses, nut trees, rubber, cocoa, coffee, tea, tobacco, ornamentals, turf, forestry, fish pounds, etc.

Total nutrient consumption figures used in this report are those published in August 2013 on IFADATA online for the 2010-2010/11 campaign. Country estimates of fertilizer use by crop have been adjusted accordingly.

Estimates of fertilizer use by crop in 2010-2010/11 in the selected 27 countries are given in Annex 2 of the report.

Data published in this report are estimates based on best available information at IFA. They provide an order of magnitude but are not hard data. Differences with the previous assessment can reflect changes in crop mix, in weight of the different countries, in fertilizer management practices, in data quality, or a combination thereof. This dataset is expected to improve over time with the progressive increase of the country and crop coverage. Understanding fertilizer applications to grassland will be a priority of the next update.

Total world fertilizer consumption reached 172.2 million metric tonnes (Mt) of nutrients in 2010-2010/11<sup>1</sup>, of which 104.3 Mt N, 40.5 Mt P<sub>2</sub>O<sub>5</sub> and 27.4 Mt K<sub>2</sub>O. Out of this total, 87.5 Mt is estimated to have been applied to cereals, i.e. slightly over half (50.8%) of world fertilizer uses. Fertilizer applications to the three main cereals were of similar magnitude: 16.1% for maize, which was the main fertilizer-consuming crop, followed by wheat (15.8%) and rice (14.3%). Fertilizer use on the other cereals represented 4.6% of the world total. Global applications to oil crops are estimated at 19.0 Mt, or 11.0% of world consumption, with market shares of 3.9% for soybean, 2.0% for oil palm and 5.2% for the other oilseeds. Both fibre crops and sugar crops accounted for slightly over 4% of world applications, and roots & tubers for 3.0%. Fruits and vegetables together represented 15% of the world market, with fruits consuming 5.8% of the total, and vegetables 9.3%. The other crops, which include grassland and a wide range of miscellaneous crops, received the remaining 11.7%.



Compared to the previous assessment three years earlier, total applications to fruits and vegetables have been revised down by two percent points since part of the applications to potatoes were previously allocated to fruits and vegetables. Furthermore, phosphate (P) and potassium (K) fertilizer applications to fruits and vegetables have contracted in some countries, and applications to this crop category were also probably slightly over-estimated in the previous assessment. Consistent with the evolution of global crop production, application to oilseeds and maize have increased sizably in three years. In relative terms, oil palm is the crop that has experienced the fastest growth in fertilizer use over the same period.

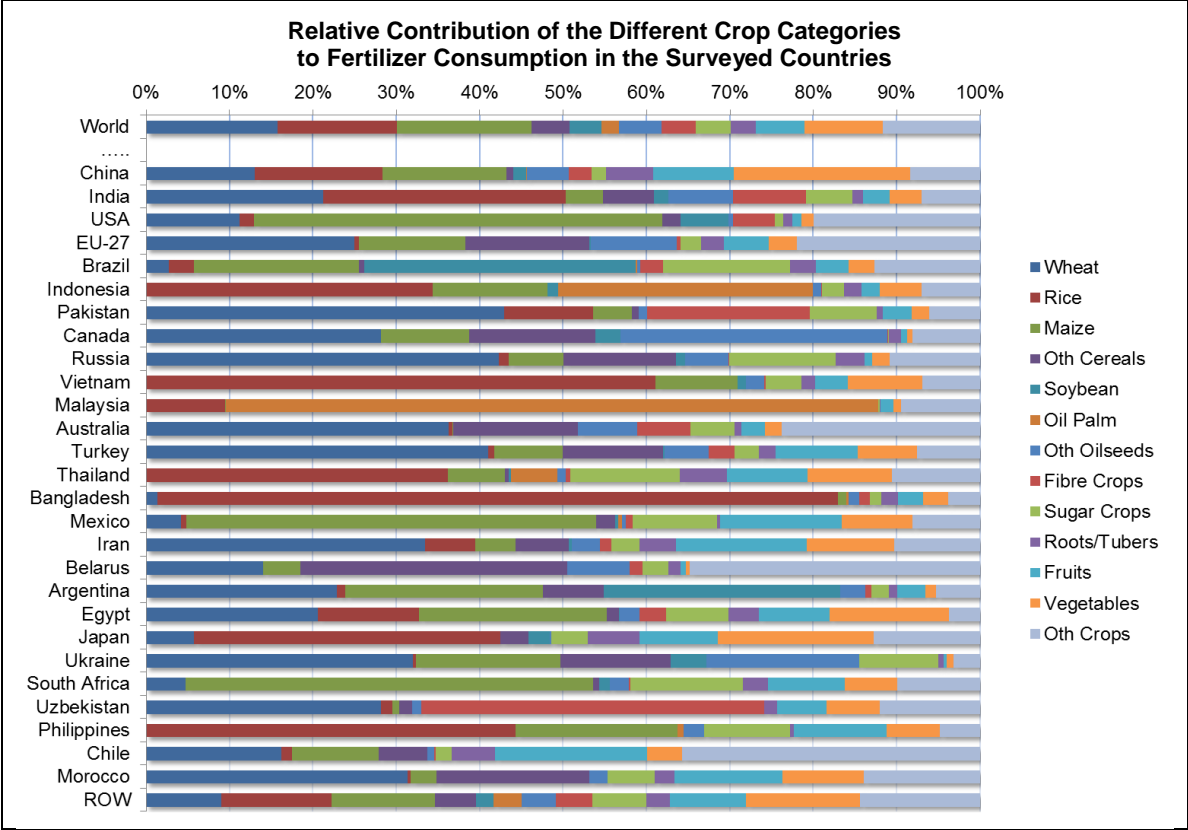
**Total Fertilizer Use by Crop at the Global Level**

Crop Category	2007-2007/08	2010-2010/11	2007-2007/08	2010-2010/11
	Quantity (Mt N + P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O)		Share (%)	
Wheat	25.5	27.1	15.1	15.8
Rice	24.3	24.7	14.4	14.3
Maize	25.8	27.8	15.3	16.1
Other Cereals	8.1	7.8	4.8	4.6
<i>Cereals</i>	<i>83.8</i>	<i>87.5</i>	<i>49.7</i>	<i>50.8</i>
Soybean	6.3	6.6	3.7	3.9
Oil Palm	2.6	3.5	1.6	2.0
Other Oilseeds	7.4	8.9	4.4	5.2
<i>Oilseeds</i>	<i>16.3</i>	<i>19.0</i>	<i>9.7</i>	<i>11.0</i>
Fibre Crops	6.2	7.0	3.6	4.1
Sugar Crops	7.5	7.2	4.5	4.2
Roots/Tubers	---	5.2	---	3.0
Fruits/Vegetables	28.9	---	17.1	---
Fruits	---	10.1	---	5.8
Vegetables	---	16.1	---	9.3
Other Crops	26.2	20.1	15.6	11.7
<b>Total</b>	<b>168.9</b>	<b>172.2</b>	<b>100.0</b>	<b>100.0</b>

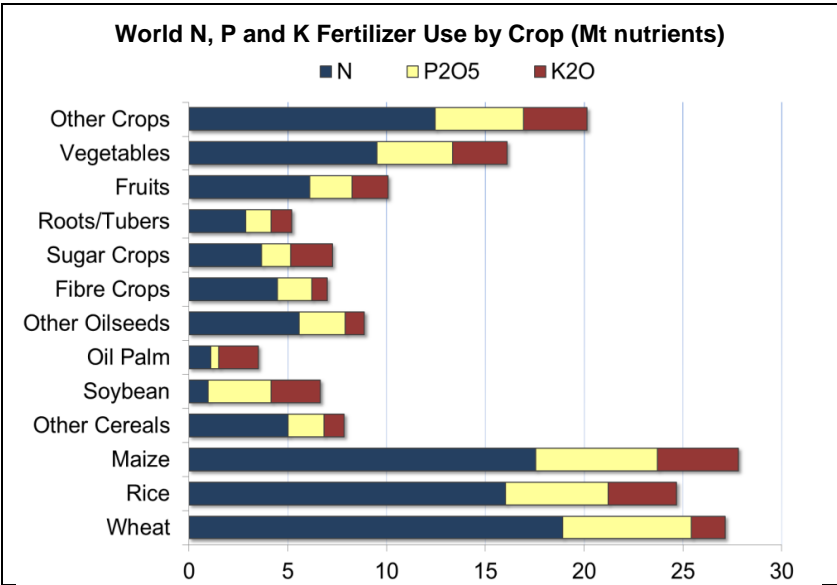
At the national level, there is a huge diversity in contribution of the different crop categories to total domestic fertilizer consumption. This is mostly due to differences in crop mix and in

<sup>1</sup> In 2010 for countries with fertilizer statistics in calendar years (e.g. China, Brazil, Indonesia) and in 2010/11 for countries with statistics in fertilizer years (e.g. India, US, EU).

level of intensification of the different crops. In some countries, a single crop can account for the bulk of domestic fertilizer uses. For instance, rice receives 82% of the fertilizer applications in Bangladesh and 62% in Vietnam; 78% of the applications go to oil palm in Malaysia; maize accounts for 49% of total uses in the US, Mexico and South Africa; wheat receives 42% of total applications in Russia, and cotton 41% of the applications in Uzbekistan.



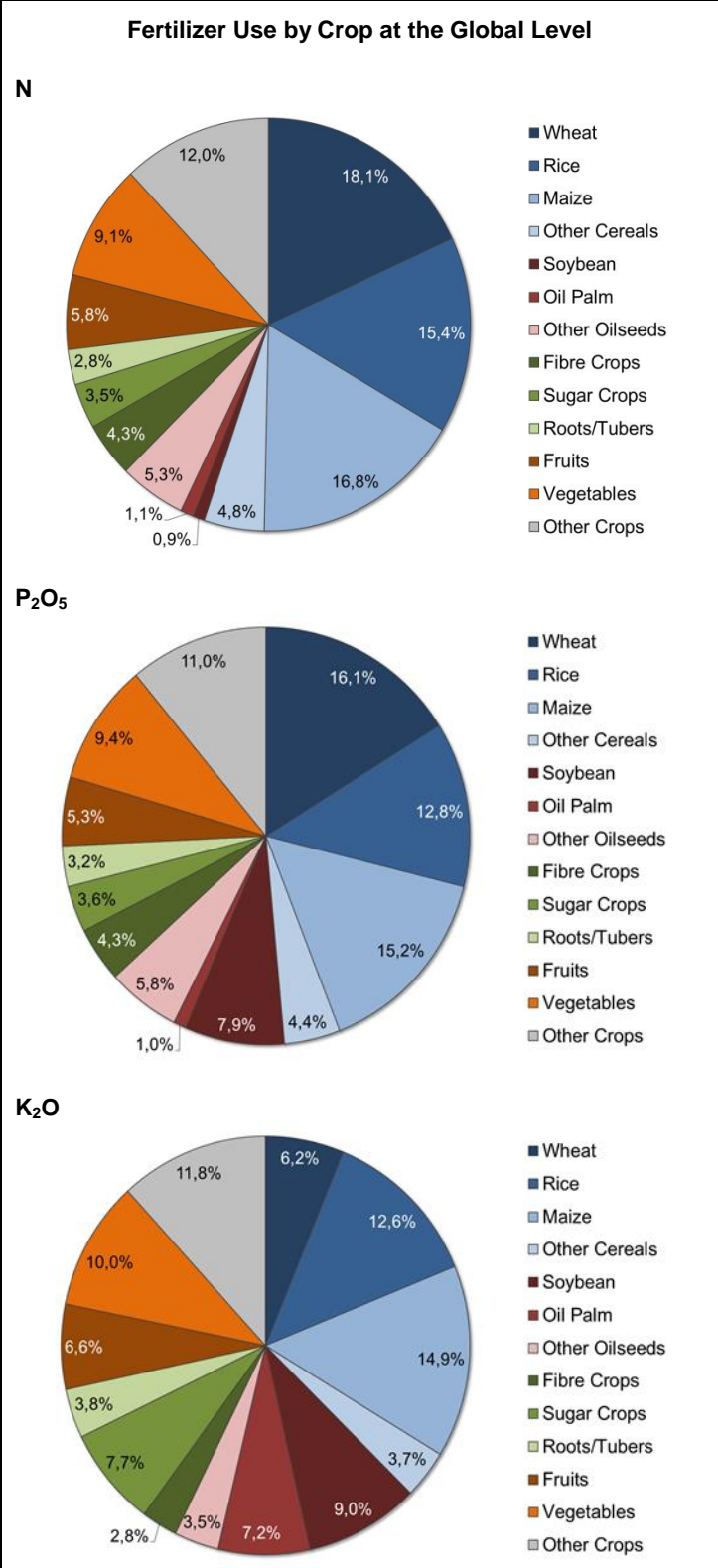
Because different crops have different nutrient requirements, and they are grown more or less intensively, some crops may have a much higher impact on the consumption of some nutrients than others. The contribution of the 13 crop categories to global nitrogen (N), P and K fertilizer consumption is illustrated in the figure below.



It is estimated that 57.5 Mt N were applied to cereals in 2010-2010/11, representing 55.2% of world fertilizer N consumption. Wheat was the main crop receiving N fertilizers, with 18.1% of global uses, followed by maize with 16.8% and rice with 15.4%. Other cereals accounted for 4.8% of the world total. Because of soybean, which fix N from the atmosphere, oil crops contributed modestly (7.3%) to world N fertilizer consumption. Rapeseed (under the 'other oilseeds' category) was the main oilseed receiving N fertilizers. Cotton, sugar crops, and roots & tubers represented 4.3, 3.5 and 2.8% of global fertilizer N uses, respectively. Fruits and vegetables accounted for 14.9% of the total, and other crops for 12.0%

As far as phosphorus is concerned, it is estimated that cereals received 19.7 Mt P<sub>2</sub>O<sub>5</sub> in 2010-2010/11, i.e. 48.5% of world P fertilizer applications, with a higher contribution of wheat (16.1%) compared to maize (15.2%), rice (12.8%) and other cereals (4.4%). Oil crops accounted for 14.7% of total consumption (6.0 Mt P<sub>2</sub>O<sub>5</sub>), with soybean representing 7.9% and the other annual oilseeds 5.8%. Cotton, sugar crops, and roots & tubers contributed to 4.3, 3.6 and 3.2% of global P fertilizer consumption, respectively. The market share of fruits and vegetables was estimated at 14.7%, while the other crops were responsible for the use of the remaining 11.0%.

The contribution of the different crop categories to world K fertilizer demand is completely different. High K-consuming crops (oil palm and sugar crops in particular) have a strong impact on K fertilizer uses. In 2010-2010/11, cereals received 10.3 Mt K<sub>2</sub>O, i.e. 37.4% of world K consumption, with a low contribution of wheat (6.2%) compared to rice (12.6%) and maize (14.9%). In contrast, oilseeds represented 19.8% of the total (5.4 Mt K<sub>2</sub>O), with more than four fifths being applied to soybean (9.0%) and oil palm (7.2%) together. K fertilizer use on fibre crops and roots & tubers was modest (2.8 and 3.8%, respectively) compared to sugar crops (7.7%) and fruits and vegetables (16.6%). The remaining 11.8% were applied to other crops.



### Estimates of World Fertilizer Use by Nutrient by Crop at the Global Level

Crop Category	2007-2007/08	2010-2010/11	2007-2007/08	2010-2010/11
	Quantity (Mt nutrients)		Share (%)	
<b>N</b>				
Wheat	17.4	18.9	17.3	18.1
Rice	15.7	16.0	15.6	15.4
Maize	16.9	17.6	16.8	16.8
Other Cereals	5.1	5.0	5.1	4.8
<i>Cereals</i>	<i>55.1</i>	<i>57.5</i>	<i>54.8</i>	<i>55.2</i>
Soybean	1.0	1.0	1.0	0.9
Oil Palm	0.8	1.1	0.8	1.1
Other Oilseeds	4.5	5.6	4.5	5.3
<i>Oilseeds</i>	<i>6.3</i>	<i>7.6</i>	<i>6.3</i>	<i>7.3</i>
Fibre Crops	4.0	4.5	3.9	4.3
Sugar Crops	3.4	3.7	3.4	3.5
Roots/Tubers	---	2.9	---	2.8
Fruits/Vegetables	15.7	---	15.6	---
Fruits	---	6.1	---	5.8
Vegetables	---	9.5	---	9.1
Other Crops	16.1	12.5	16.0	12.0
Total	100.5	104.3	100.0	100.0
<b>P<sub>2</sub>O<sub>5</sub></b>				
Wheat	6.4	6.5	16.2	16.1
Rice	4.8	5.2	12.3	12.8
Maize	4.9	6.2	12.4	15.2
Other Cereals	2.0	1.8	5.1	4.4
<i>Cereals</i>	<i>18.1</i>	<i>19.7</i>	<i>46.0</i>	<i>48.5</i>
Soybean	3.0	3.2	7.5	7.9
Oil Palm	0.3	0.4	0.8	1.0
Other Oilseeds	1.9	2.3	4.7	5.8
<i>Oilseeds</i>	<i>5.2</i>	<i>6.0</i>	<i>13.1</i>	<i>14.7</i>
Fibre Crops	1.6	1.7	4.0	4.3
Sugar Crops	1.5	1.4	3.9	3.6
Roots/Tubers	---	1.3	---	3.2
Fruits/Vegetables	7.0	---	17.9	---
Fruits	---	2.2	---	5.3
Vegetables	---	3.8	---	9.4
Other Crops	6.1	4.5	15.1	11.0
Total	39.3	40.5	100.0	100.0
<b>K<sub>2</sub>O</b>				
Wheat	1.7	1.7	6.0	6.2
Rice	3.8	3.5	13.3	12.6
Maize	4.1	4.1	14.2	14.9
Other Cereals	0.9	1.0	3.3	3.7
<i>Cereals</i>	<i>10.6</i>	<i>10.3</i>	<i>36.7</i>	<i>37.4</i>
Soybean	2.3	2.5	8.1	9.0
Oil Palm	1.5	2.0	5.1	7.2
Other Oilseeds	1.0	1.0	3.5	3.5
<i>Oilseeds</i>	<i>4.8</i>	<i>5.4</i>	<i>16.6</i>	<i>19.8</i>
Fibre Crops	0.6	0.8	2.2	2.8
Sugar Crops	2.5	2.1	8.8	7.7
Roots/Tubers	---	1.0	---	3.8
Fruits/Vegetables	6.2	---	21.5	---
Fruits	---	1.8	---	6.6
Vegetables	---	2.8	---	10.0
Other Crops	4.1	3.2	14.1	11.8
Total	28.9	27.4	100.0	100.0

### Estimates of Fertilizer Use by Crop in Selected Countries in 2010-2010/11 ('000 tonnes nutrients)

		Total	% of World	CEREALS								OILSEEDS								Sugar Crops		Roots/Tubers		Fruits		Vegetables		Oth Crops			
				Wheat		Rice		Maize		Oth Cereals		Soybean		Oil Palm		Oth Oilseeds		Fibre Crops													
				%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty				
China	N	32 599	31,3%	13,8%	4 499	15,4%	5 020	15,4%	5 020	0,9%	293	0,9%	293	0,0%	7	5,3%	1 728	2,8%	913	1,5%	489	5,3%	1 728	9,9%	3 227	20,1%	6 552	8,7%	2 830		
	P <sub>2</sub> O <sub>5</sub>	12 100	29,9%	14,1%	1 706	12,9%	1 561	15,1%	1 827	0,9%	109	3,4%	411	0,0%	2	5,4%	653	3,1%	375	1,5%	182	5,4%	653	8,4%	1 016	20,7%	2 505	9,1%	1 099		
	K <sub>2</sub> O	5 200	19,0%	5,8%	302	20,8%	1 082	10,2%	530	0,6%	31	1,5%	78	0,1%	5	2,2%	114	1,5%	78	4,4%	229	8,0%	416	10,9%	567	29,0%	1 508	5,0%	260		
	N+P+K	49 899	29,0%	13,0%	6 506	15,4%	7 663	14,8%	7 378	0,9%	433	1,6%	783	0,0%	14	5,0%	2 496	2,7%	1 366	1,8%	899	5,6%	2 797	9,6%	4 811	21,2%	10 565	8,4%	4 189		
India	N	16 558	15,9%	24,0%	3 974	30,4%	4 967	5,1%	844	6,3%	1 043	1,4%	232	0,0%	0	6,6%	1 093	9,0%	1 490	5,5%	911	0,8%	132	2,5%	414	3,0%	497	5,8%	960		
	P <sub>2</sub> O <sub>5</sub>	8 050	19,9%	21,0%	1 691	24,0%	1 932	4,5%	362	6,1%	491	3,2%	258	0,0%	0	10,0%	805	8,9%	716	4,5%	362	1,6%	129	3,0%	242	3,7%	298	9,5%	765		
	K <sub>2</sub> O	3 514	12,8%	9,0%	316	36,0%	1 265	1,8%	63	4,7%	165	0,2%	7	0,0%	0	8,0%	281	7,4%	260	8,0%	281	2,9%	102	7,0%	246	8,0%	281	7,0%	246		
	N+P+K	28 122	16,3%	21,3%	5 981	29,0%	8 164	4,5%	1 270	6,0%	1 699	1,8%	496	0,0%	0	7,7%	2 179	8,8%	2 467	5,5%	1 554	1,3%	363	3,2%	901	3,8%	1 076	7,0%	1 971		
USA	N	11 645	11,2%	13,3%	1 549	2,1%	245	49,0%	5 706	2,6%	303	0,8%	93	0,0%	0	0,8%	93	4,8%	559	0,9%	105	0,7%	82	0,8%	105	0,7%	93	1,2%	140	23,0%	2 678
	P <sub>2</sub> O <sub>5</sub>	3 915	9,7%	14,2%	556	1,2%	47	50,0%	1 958	2,4%	94	9,2%	360	0,0%	0	0,5%	20	4,9%	192	1,5%	59	1,6%	63	0,7%	27	1,9%	74	11,9%	466		
	K <sub>2</sub> O	4 165	15,2%	2,5%	104	1,2%	50	48,0%	1 999	0,7%	29	16,3%	679	0,0%	0	0,1%	4	5,8%	242	0,8%	33	1,6%	67	2,3%	96	1,7%	71	19,0%	791		
	N+P+K	19 725	11,5%	11,2%	2 209	1,7%	342	49,0%	9 663	2,2%	426	5,7%	1 132	0,0%	0	0,6%	117	5,0%	992	1,0%	197	1,1%	211	1,1%	216	1,4%	285	20,0%	3 936		
EU-27	N	10 794	10,4%	28,0%	3 022	0,4%	43	12,6%	1 360	15,1%	1 630	0,0%	1	0,0%	0	10,1%	1 090	0,3%	32	1,7%	183	1,8%	194	4,5%	486	2,5%	270	23,0%	2 482		
	P <sub>2</sub> O <sub>5</sub>	2 501	6,2%	21,8%	545	0,6%	15	13,8%	345	15,4%	385	0,4%	10	0,0%	0	10,3%	258	0,6%	15	3,1%	78	3,6%	90	8,0%	200	4,8%	120	17,6%	440		
	K <sub>2</sub> O	2 870	10,5%	16,3%	468	1,0%	29	12,6%	362	13,6%	390	0,5%	14	0,0%	0	11,1%	319	0,7%	20	4,9%	141	5,7%	164	6,5%	187	5,4%	155	21,7%	623		
	N+P+K	16 165	9,4%	25,0%	4 035	0,5%	87	12,8%	2 067	14,9%	2 405	0,2%	25	0,0%	0	10,3%	1 666	0,4%	67	2,5%	402	2,8%	448	5,4%	872	3,4%	545	21,9%	3 545		
Brazil	N	2 855	11,2%	4,0%	114	5,0%	143	25,0%	714	1,0%	29	4,0%	114	0,3%	9	0,6%	17	3,7%	106	22,0%	628	4,0%	114	5,5%	157	4,0%	114	20,9%	597		
	P <sub>2</sub> O <sub>5</sub>	3 384	8,4%	2,8%	95	2,3%	78	20,0%	677	0,5%	17	48,0%	1 624	0,1%	3	0,2%	5	2,4%	81	6,5%	220	3,0%	102	2,6%	88	2,5%	85	9,1%	310		
	K <sub>2</sub> O	3 894	14,2%	1,8%	70	2,0%	78	16,0%	623	0,4%	16	40,0%	1 558	0,3%	12	0,3%	12	2,2%	86	18,0%	701	2,5%	97	3,9%	152	3,0%	117	9,6%	374		
	N+P+K	10 133	5,9%	2,8%	279	2,9%	298	19,9%	2 014	0,6%	61	32,5%	3 296	0,2%	24	0,3%	34	2,7%	273	15,3%	1 549	3,1%	313	3,9%	397	3,1%	316	12,6%	1 280		
Indonesia	N	3 045	2,9%	0,0%	0	45,0%	1 370	16,0%	487	0,0%	0	0,5%	15	18,0%	548	0,9%	27	0,1%	3	1,5%	46	2,3%	70	2,2%	30	5,5%	167	8,0%	244		
	P <sub>2</sub> O <sub>5</sub>	500	1,2%	0,0%	0	28,0%	140	15,0%	75	0,0%	0	4,7%	24	28,0%	140	2,8%	14	0,3%	2	3,5%	18	2,8%	14	2,0%	10	6,0%	30	6,9%	35		
	K <sub>2</sub> O	1 250	4,6%	0,0%	0	11,0%	138	8,0%	100	0,0%	0	1,6%	20	62,0%	775	0,7%	9	0,1%	1	5,0%	63	1,2%	15	2,2%	28	3,5%	44	4,7%	59		
	N+P+K	4 795	2,8%	0,0%	0	34,4%	1 648	13,8%	662	0,0%	0	1,2%	59	30,5%	1 463	1,0%	50	0,1%	6	2,6%	126	2,1%	99	2,2%	104	5,0%	241	7,0%	337		
Pakistan	N	3 143	3,0%	43,0%	1 351	11,0%	346	4,5%	141	0,8%	25	0,0%	0	0,0%	0	1,0%	31	20,0%	629	8,0%	251	0,6%	19	3,5%	110	2,0%	63	5,6%	176		
	P <sub>2</sub> O <sub>5</sub>	767	1,9%	43,0%	330	9,0%	69	5,3%	41	0,8%	6	0,0%	0	0,0%	0	1,0%	8	18,0%	138	8,0%	61	0,9%	7	3,5%	27	2,0%	15	8,5%	65		
	K <sub>2</sub> O	32	0,1%	40,0%	13	12,0%	4	6,5%	2	0,0%	0	0,0%	0	0,0%	0	0,0%	0	16,0%	5	9,0%	3	1,5%	0	9,0%	3	4,0%	1	2,0%	1		
	N+P+K	3 942	2,3%	43,0%	1 694	10,6%	419	10,7%	184	0,8%	31	0,0%	0	0,0%	0	1,0%	39	19,6%	772	8,0%	316	0,7%	26	3,5%	140	2,0%	79	6,1%	242		
Canada	N	1 990	1,9%	29,5%	587	0,0%	0	10,0%	199	16,5%	328	0,5%	10	0,0%	0	35,0%	697	0,0%	1	0,1%	2	1,2%	24	0,7%	14	0,6%	12	5,9%	117		
	P <sub>2</sub> O <sub>5</sub>	723	1,8%	26,9%	194	0,0%	0	8,0%	58	13,2%	95	7,2%	52	0,0%	0	30,3%	219	0,0%	0	0,1%	1	1,5%	11	0,6%	4	0,5%	4	11,7%	84		
	K <sub>2</sub> O	312	1,1%	22,5%	70	0,0%	0	20,0%	62	11,0%	34	10,0%	31	0,0%	0	16,8%	52	0,2%	1	0,2%	1	3,0%	9	1,0%	3	0,8%	2	14,5%	45		
	N+P+K	3 025	1,8%	28,2%	852	0,0%	0	10,6%	319	15,1%	458	3,1%	93	0,0%	0	32,0%	968	0,1%	2	0,1%	3	1,5%	44	0,7%	21	0,6%	18	8,1%	246		
Russia	N	1 483	1,4%	47,8%	709	1,4%	21	6,8%	101	14,3%	212	0,7%	10	0,0%	0	4,1%	61	0,1%	1	8,3%	123	2,5%	37	0,5%	7	1,1%	16	12,4%	184		
	P <sub>2</sub> O <sub>5</sub>	530	1,3%	39,9%	211	1,4%	7	6,1%	32	12,5%	66	2,1%	11	0,0%	0	7,9%	42	0,2%	1	15,8%	84	3,6%	19	1,1%	6	2,8%	15	6,6%	35		
	K <sub>2</sub> O	351	1,3%	22,5%	79	0,3%	1	6,0%	21	12,0%	42	0,9%	3	0,0%	0	5,7%	20	0,2%	1	27,0%	95	6,9%	24	2,5%	9	5,4%	19	10,6%	37		
	N+P+K	2 364	1,4%	42,3%	999	1,2%	29	6,5%	154	13,6%	320	1,0%	25	0,0%	0	5,2%	123	0,1%	3	12,8%	302	3,4%	80	0,9%	22	2,1%	50	10,8%	256		
Vietnam	N	1 250	1,2%	0,0%	0	60,0%	750	12,0%	150	0,0%	0	0,7%	9	0,0%	0	1,5%	19	0,2%	3	4,0%	50	2,0%	25	3,8%	48	9,0%	113	6,8%	85		
	P <sub>2</sub> O <sub>5</sub>	650	1,6%	0,0%	0	64,0%	416	7,5%	49	0,0%	0	1,5%	10	0,0%	0	3,0%	20	0,1%	1	2,5%	16	1,0%	7	4,0%	26	8,0%	52	8,4%	55		
	K <sub>2</sub> O	400	1,5%	0,0%	0	60,0%	240	6,5%	26	0,0%	0	1,5%	6	0,0%	0	3,0%	12	0,1%	0	8,0%	32	1,5%	6	4,5%	18	10,0%	40	4,9%	20		
	N+P+K	2 300	1,3%	0,0%	0	61,1%	1 406	9,8%	225	0,0%	0	1,1%	25	0,0%	0	2,2%	50	0,2%	4	4,3%	98	1,6%	38	4,0%	92	8,9%	205	6,9%	159		
Malaysia	N	542	0,5%	0,0%	0	15,2%	82	0,2%	1	0,0%	0	0,0%	0	69,0%	374	0,0%	0	0,0%	0	0,2%	1	0,1%	1	1,8%	10	1,1%	6	12,5%	67		
	P <sub>2</sub> O <sub>5</sub>	280	0,7%	0,0%	0	17,9%	50	0,2%	1	0,0%	0	0,0%	0	64,0%	179	0,0%	0	0,0%	0	0,2%	1	0,1%	0	3,0%	8	1,8%	5	12,8%	36		
	K <sub>2</sub> O	1 150	4,2%	0,0%	0	4,8%	55	0,1%	1	0,0%	0	0,0%	0	86,0%	989	0,0%	0	0,0%	0	0,1%	1	0,1%	1	1,1%	13	0,6%	7	7,3%	84		
	N+P+K	1 972	1,1%	0,0%	0	9,5%	188	0,1%																							



		CEREALS										OILSEEDS																	
		Wheat		Rice		Maize		Oth Cereals		Soybean		Oil Palm		Oth Oilseeds		Fibre Crops		Sugar Crops		Roots/Tubers		Fruits		Vegetables		Oth Crops			
		Total	% of World	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty		
Australia	N	982	0.9%	37.4%	367	0.6%	6	0.2%	2	15.7%	154	0.0%	0	0.0%	0	8.8%	86	9.9%	97	6.2%	61	0.8%	8	2.3%	23	1.7%	17	16.4%	161
	P <sub>2</sub> O <sub>5</sub>	817	2.0%	38.8%	317	0.2%	2	0.0%	0	15.2%	124	0.0%	0	0.0%	0	5.5%	45	2.5%	20	2.5%	20	0.5%	4	2.1%	17	1.5%	12	31.2%	255
	K <sub>2</sub> O	168	0.6%	18.0%	30	0.0%	0	0.0%	0	9.5%	16	0.0%	0	0.0%	0	5.3%	9	4.4%	7	14.3%	24	2.5%	4	9.3%	16	5.5%	9	31.2%	52
	N+P+K	1 967	1.1%	36.3%	715	0.4%	8	0.1%	2	15.0%	294	0.0%	0	0.0%	0	7.1%	140	6.4%	125	5.4%	105	0.8%	16	2.8%	55	1.9%	38	23.8%	468
Turkey	N	1 344	1.3%	41.6%	559	0.8%	11	8.7%	117	12.2%	164	0.1%	1	0.0%	0	5.4%	73	3.3%	44	2.3%	31	1.8%	24	10.0%	134	7.0%	94	6.8%	91
	P <sub>2</sub> O <sub>5</sub>	515	1.3%	42.6%	219	0.6%	3	7.2%	37	12.7%	65	0.2%	1	0.0%	0	5.2%	27	2.7%	14	3.3%	17	2.0%	10	8.0%	41	6.0%	31	9.5%	49
	K <sub>2</sub> O	84	0.3%	22.4%	19	0.4%	0	5.7%	5	6.6%	6	0.0%	0	0.0%	0	4.8%	4	2.4%	2	9.6%	8	5.0%	4	20.0%	17	16.0%	13	7.1%	6
	N+P+K	1 943	1.1%	41.0%	797	0.7%	14	8.2%	159	12.1%	235	0.1%	2	0.0%	0	5.3%	103	3.1%	60	2.9%	56	2.0%	39	9.9%	192	7.1%	138	7.5%	146
Thailand	N	1 311	1.3%	0.0%	0	45.0%	590	7.0%	92	0.4%	5	0.1%	1	3.1%	41	0.9%	12	0.6%	8	9.2%	121	5.0%	66	9.0%	118	10.0%	131	9.7%	127
	P <sub>2</sub> O <sub>5</sub>	301	0.7%	0.0%	0	28.0%	84	7.0%	21	0.3%	1	1.0%	3	6.7%	20	1.3%	4	0.7%	2	17.0%	51	6.7%	20	10.0%	30	10.0%	30	11.3%	34
	K <sub>2</sub> O	310	1.1%	0.0%	0	7.0%	22	6.0%	19	0.7%	2	0.1%	0	15.0%	47	1.0%	3	0.7%	2	26.0%	81	7.0%	22	12.0%	37	11.0%	34	13.5%	42
	N+P+K	1 922	1.1%	0.0%	0	36.2%	696	6.8%	131	0.4%	8	0.2%	5	5.6%	107	1.0%	19	0.6%	12	13.1%	252	5.6%	107	9.6%	185	10.2%	195	10.6%	203
Bangladesh	N	1 210	1.2%	1.1%	13	83.0%	1 004	1.0%	12	0.0%	0	0.0%	0	0.2%	2	0.8%	10	1.5%	18	1.0%	12	2.0%	24	3.0%	36	3.0%	36	3.4%	41
	P <sub>2</sub> O <sub>5</sub>	360	0.9%	2.1%	8	78.0%	281	1.0%	4	0.0%	0	0.0%	0	0.2%	1	2.5%	9	1.0%	4	1.5%	5	2.0%	7	3.0%	11	3.0%	11	5.7%	21
	K <sub>2</sub> O	191	0.7%	1.6%	3	80.0%	153	0.8%	2	0.0%	0	0.0%	0	0.4%	1	2.0%	4	1.0%	2	3.0%	6	2.0%	4	3.0%	6	3.0%	6	3.2%	6
	N+P+K	1 761	1.0%	1.4%	24	81.7%	1 438	1.0%	17	0.0%	0	0.0%	0	0.2%	4	1.3%	23	1.3%	24	1.3%	23	2.0%	35	3.0%	53	3.0%	53	3.8%	68
Mexico	N	1 166	1.1%	5.3%	62	45.0%	6	61.0%	711	3.0%	35	0.0%	0	0.3%	3	0.5%	6	0.6%	7	6.1%	71	0.4%	5	9.5%	111	5.5%	64	7.3%	85
	P <sub>2</sub> O <sub>5</sub>	304	0.8%	2.9%	9	0.8%	2	40.0%	122	1.5%	5	1.2%	4	0.8%	2	0.4%	1	1.2%	4	9.0%	27	0.3%	1	20.0%	61	12.0%	36	9.9%	30
	K <sub>2</sub> O	280	1.0%	1.2%	3	0.9%	3	9.5%	27	0.2%	1	0.9%	3	1.0%	3	0.1%	0	1.2%	3	28.0%	78	0.5%	1	30.0%	84	17.0%	48	9.5%	27
	N+P+K	1 750	1.0%	4.2%	74	0.6%	11	49.1%	859	2.3%	40	0.4%	6	0.5%	9	0.4%	7	0.8%	14	10.1%	177	0.4%	7	14.6%	256	8.5%	148	8.1%	142
Iran	N	1 050	1.0%	33.2%	349	6.2%	65	4.7%	49	6.7%	70	0.1%	1	0.0%	0	2.6%	27	1.2%	13	3.1%	33	4.0%	42	16.0%	168	11.0%	116	11.2%	118
	P <sub>2</sub> O <sub>5</sub>	349	0.9%	37.0%	129	5.8%	20	5.8%	20	5.8%	20	1.0%	3	0.0%	0	5.1%	18	1.8%	6	3.8%	13	5.0%	17	13.0%	45	8.0%	28	8.1%	28
	K <sub>2</sub> O	50	0.2%	14.3%	7	2.9%	1	2.9%	1	2.9%	1	1.4%	1	0.0%	0	8.6%	4	1.4%	1	7.0%	4	7.0%	4	28.0%	14	17.0%	9	6.6%	3
	N+P+K	1 449	0.8%	33.5%	485	6.0%	87	4.9%	70	6.4%	92	0.4%	5	0.0%	0	3.4%	49	1.4%	20	3.4%	49	4.3%	63	15.7%	227	10.5%	152	10.3%	143
Belarus	N	536	0.5%	15.0%	80	0.0%	0	4.4%	24	28.0%	150	0.0%	0	0.0%	0	8.0%	43	1.0%	5	2.7%	14	1.5%	8	0.6%	3	0.3%	2	38.5%	206
	P <sub>2</sub> O <sub>5</sub>	241	0.6%	15.0%	36	0.0%	0	4.4%	11	33.0%	80	0.0%	0	0.0%	0	7.3%	18	2.0%	5	3.7%	9	1.5%	4	0.7%	2	0.6%	1	31.8%	77
	K <sub>2</sub> O	660	2.4%	13.0%	86	0.0%	0	4.4%	29	35.0%	231	0.0%	0	0.0%	0	7.0%	46	1.8%	12	3.3%	22	1.5%	10	0.6%	4	0.4%	3	33.0%	218
	N+P+K	1 437	0.8%	14.1%	202	0.0%	0	4.4%	63	32.1%	461	0.0%	0	0.0%	0	7.4%	107	1.5%	22	3.1%	45	1.5%	22	0.6%	9	0.4%	6	34.9%	501
Argentina	N	781	0.7%	28.3%	221	1.1%	9	29.6%	231	7.7%	60	14.8%	116	0.0%	0	3.7%	29	1.0%	8	2.3%	18	1.0%	8	3.8%	30	1.1%	9	5.6%	44
	P <sub>2</sub> O <sub>5</sub>	613	1.5%	17.3%	106	0.5%	3	17.3%	106	7.3%	45	46.7%	286	0.0%	0	2.2%	13	0.5%	3	1.0%	6	0.8%	5	1.2%	7	1.0%	6	4.2%	26
	K <sub>2</sub> O	35	0.1%	1.4%	0	7.7%	3	1.4%	0	0.0%	0	9.3%	3	0.0%	0	0.0%	0	0.5%	0	15.0%	5	6.0%	2	30.4%	11	12.1%	4	16.2%	6
	N+P+K	1 429	0.8%	22.9%	328	1.0%	14	23.6%	338	7.3%	105	28.3%	405	0.0%	0	3.0%	42	0.8%	11	2.1%	29	1.0%	15	3.3%	48	1.3%	19	5.3%	75
Egypt	N	1 159	1.1%	21.3%	247	13.6%	158	23.8%	276	1.5%	17	0.1%	1	0.0%	0	2.2%	25	3.0%	35	6.9%	80	3.0%	35	8.0%	93	13.0%	151	3.7%	42
	P <sub>2</sub> O <sub>5</sub>	150	0.4%	16.0%	24	5.3%	8	15.3%	23	1.3%	2	0.2%	0	0.0%	0	4.0%	6	4.0%	6	10.7%	16	7.0%	11	11.0%	17	21.0%	32	4.2%	6
	K <sub>2</sub> O	51	0.2%	17.6%	9	0.0%	0	13.7%	7	2.0%	1	0.0%	0	0.0%	0	2.0%	1	3.9%	2	11.8%	6	8.0%	4	13.0%	7	25.0%	13	3.0%	2
	N+P+K	1 360	0.8%	20.6%	280	12.2%	166	22.5%	306	1.5%	20	0.1%	1	0.0%	0	2.4%	33	3.1%	43	7.5%	102	3.6%	49	8.5%	116	14.3%	195	3.7%	50
Japan	N	405	0.4%	5.5%	22	36.0%	146	0.0%	0	3.3%	13	1.1%	4	0.0%	0	0.1%	0	0.0%	0	4.4%	18	5.8%	23	11.8%	48	19.7%	80	12.3%	50
	P <sub>2</sub> O <sub>5</sub>	385	1.0%	6.0%	23	38.0%	146	0.0%	0	3.7%	14	3.4%	13	0.0%	0	0.2%	1	0.0%	0	3.9%	15	6.8%	26	7.0%	27	17.5%	67	13.5%	52
	K <sub>2</sub> O	310	1.1%	5.9%	18	36.0%	112	0.0%	0	3.1%	10	3.4%	11	0.0%	0	0.2%	1	0.0%	0	4.9%	15	6.1%	19	9.2%	29	18.7%	58	12.5%	39
	N+P+K	1 100	0.6%	5.8%	64	36.7%	404	0.0%	0	3.4%	37	2.6%	28	0.0%	0	0.2%	2	0.0%	0	4.4%	48	6.2%	69	9.4%	103	18.6%	205	12.8%	141
Ukraine	N	650	0.6%	36.1%	235	0.4%	3	17.9%	116	14.2%	92	3.4%	22	0.0%	0	15.7%	102	0.0%	0	7.7%	50	0.3%	2	0.3%	2	0.5%	3	3.5%	23
	P <sub>2</sub> O <sub>5</sub>	170	0.4%	23.6%	40	0.5%	1	15.5%	26	11.8%	20	6.2%	11	0.0%	0	25.5%	43	0.0%	0	10.6%	18	1.2%	2	0.6%	1	1.2%	2	3.3%	6
	K <sub>2</sub> O	110	0.4%	20.9%	23	0.1%	0	16.3%	18	10.1%	11	6.2%	7	0.0%	0	22.5%	25	0.0%	0	18.6%	20	1.6%	2	0.8%	1	1.6%	2	1.3%	1
	N+P+K	930	0.5%	32.0%	298	0.4%	4	17.3%	161	13.3%	123	4.2%	39	0.0%	0	18.3%	170	0.0%	0	9.5%	89	0.6%	6	0.4%	4	0.8%	7	3.2%	30

		CEREALS										OILSEEDS																	
		Wheat		Rice		Maize		Oth Cereals		Soybean		Oil Palm		Oth Oilseeds		Fibre Crops		Sugar Crops		Roots/Tubers		Fruits		Vegetables		Oth Crops			
		Total	% of World	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty		
South Africa	N	395	0.4%	5.1%	20	0.0%	0	58.0%	229	1.0%	4	0.4%	2	2.0%	8	0.2%	1	8.4%	33	2.3%	9	7.6%	30	5.1%	20	10.0%	39		
	P <sub>2</sub> O <sub>5</sub>	172	0.4%	5.8%	10	0.0%	0	50.0%	86	0.6%	1	3.0%	5	0.0%	0	3.5%	6	8.7%	15	3.0%	5	6.0%	10	7.0%	12	12.2%	21		
	K <sub>2</sub> O	107	0.4%	1.9%	2	0.0%	0	13.0%	14	0.3%	0	1.5%	2	0.0%	0	1.5%	2	40.0%	43	5.7%	6	20.0%	21	9.5%	10	6.4%	7		
	N+P+K	674	0.4%	4.8%	32	0.0%	0	48.8%	329	0.8%	5	1.2%	8	0.0%	0	2.3%	16	0.2%	1	13.5%	91	3.0%	20	9.2%	62	6.3%	42	10.0%	67
Uzbekistan	N	523	0.5%	28.0%	146	1.2%	6	0.8%	4	1.5%	8	0.0%	0	1.1%	6	42.0%	220	0.0%	0	1.2%	6	6.1%	32	6.1%	32	12.0%	63		
	P <sub>2</sub> O <sub>5</sub>	116	0.3%	30.0%	35	1.5%	2	0.9%	1	1.8%	2	0.0%	0	0.9%	1	36.0%	42	0.0%	0	2.9%	3	5.9%	7	7.1%	8	13.0%	15		
	K <sub>2</sub> O	11	0.0%	15.0%	2	10.0%	1	2.5%	0	1.7%	0	0.0%	0	0.8%	0	55.0%	6	0.0%	0	1.7%	0	0.8%	0	7.5%	1	5.0%	1		
	N+P+K	650	0.4%	28.1%	183	1.4%	9	0.8%	6	1.6%	10	0.0%	0	1.1%	7	41.1%	267	0.0%	0	1.5%	10	6.0%	39	6.3%	41	12.1%	78		
Philippines	N	433	0.4%	0.0%	0	48.0%	208	22.0%	95	0.0%	0	0.0%	0	0.4%	2	2.1%	9	0.0%	0	9.5%	41	0.6%	3	8.4%	36	4.2%	18	4.8%	21
	P <sub>2</sub> O <sub>5</sub>	98	0.2%	0.0%	0	42.0%	41	19.0%	19	0.0%	0	0.0%	0	1.0%	1	3.0%	3	0.0%	0	10.0%	10	0.0%	0	10.0%	10	10.0%	10	5.0%	5
	K <sub>2</sub> O	84	0.3%	0.0%	0	28.0%	24	6.7%	6	0.0%	0	0.0%	0	2.2%	2	3.3%	3	0.0%	0	15.0%	13	0.0%	0	27.0%	23	13.0%	11	4.8%	4
	N+P+K	615	0.4%	0.0%	0	44.3%	273	19.4%	120	0.0%	0	0.7%	5	2.4%	15	0.0%	0	10.3%	64	0.4%	3	11.2%	69	6.3%	39	4.8%	30		
Chile	N	268	0.3%	19.0%	51	0.8%	2	13.0%	35	6.6%	18	0.0%	0	0.8%	2	0.2%	1	1.3%	3	3.0%	8	17.0%	46	3.4%	9	34.9%	94		
	P <sub>2</sub> O <sub>5</sub>	131	0.3%	18.0%	24	1.2%	2	6.7%	9	6.7%	9	0.0%	0	0.6%	1	0.2%	0	1.2%	2	7.0%	9	8.0%	10	3.0%	4	47.4%	62		
	K <sub>2</sub> O	94	0.3%	6.0%	6	2.4%	2	8.3%	8	2.4%	2	0.0%	0	1.2%	1	0.2%	0	4.5%	4	9.0%	8	36.0%	34	8.0%	8	22.0%	21		
	N+P+K	493	0.3%	16.3%	80	1.2%	6	10.4%	51	5.8%	29	0.0%	0	0.8%	4	0.2%	1	1.9%	9	5.2%	26	18.2%	90	4.2%	21	35.8%	176		
Morocco	N	205	0.2%	34.0%	70	0.4%	1	3.0%	6	20.0%	41	0.0%	0	1.7%	3	0.0%	0	5.0%	10	2.5%	5	11.0%	23	8.0%	16	14.4%	30		
	P <sub>2</sub> O <sub>5</sub>	114	0.3%	31.0%	35	0.4%	0	3.9%	4	18.0%	21	0.0%	0	3.3%	4	0.0%	0	5.6%	6	1.5%	2	12.0%	14	9.0%	10	15.3%	17		
	K <sub>2</sub> O	47	0.2%	21.0%	10	0.2%	0	1.2%	1	12.0%	6	0.0%	0	1.2%	1	0.0%	0	9.0%	4	3.5%	2	24.0%	11	19.0%	9	8.9%	4		
	N+P+K	366	0.2%	31.4%	115	0.4%	1	3.0%	11	18.3%	67	0.0%	0	0.0%	0	2.1%	8	0.0%	0	5.7%	21	2.3%	8	13.0%	48	9.7%	36	14.0%	51
ROW	N	5 930	5.7%	11.0%	652	14.0%	830	14.0%	830	5.5%	326	0.6%	36	2.0%	119	4.5%	267	4.7%	279	5.0%	297	3.0%	178	9.0%	534	13.0%	771	13.7%	812
	P <sub>2</sub> O <sub>5</sub>	2 286	5.6%	8.0%	183	12.0%	274	11.0%	251	5.5%	126	5.0%	114	2.5%	57	4.5%	103	4.7%	107	6.0%	137	2.5%	57	8.5%	194	14.0%	320	15.8%	361
	K <sub>2</sub> O	1 705	6.2%	3.5%	60	12.0%	205	9.0%	153	2.0%	34	3.5%	60	9.0%	153	2.5%	43	2.8%	48	12.0%	205	3.0%	51	10.0%	171	16.0%	273	14.7%	251
	N+P+K	9 921	5.8%	9.0%	895	13.2%	1 309	12.4%	1 235	4.9%	486	2.1%	210	3.3%	329	4.2%	412	4.4%	434	6.4%	638	2.9%	286	9.1%	899	13.7%	1 364	14.4%	1 424
World	N	104 252	100.0%	18.1%	18 900	15.4%	16 031	16.8%	17 554	4.8%	5 022	0.9%	962	1.1%	1 104	5.3%	5 565	4.3%	4 471	3.5%	3 682	2.8%	2 879	5.8%	6 098	9.1%	9 518	12.0%	12 466
	P <sub>2</sub> O <sub>5</sub>	40 526	100.0%	16.1%	6 526	12.8%	5 185	15.2%	6 163	4.4%	1 798	7.9%	3 201	1.0%	406	5.8%	2 345	4.3%	1 735	3.6%	1 449	3.2%	1 278	5.3%	2 159	9.4%	3 824	11.0%	4 454
	K <sub>2</sub> O	27 435	100.0%	6.2%	1 700	12.6%	3 466	14.9%	4 079	3.7%	1 029	9.0%	2 482	7.2%	1 986	3.5%	969	2.8%	779	7.7%	2 116	3.8%	1 044	6.6%	1 804	10.0%	2 754	11.8%	3 228
	N+P+K	172 209	100.0%	15.8%	27 126	14.3%	24 682	16.1%	27 796	4.6%	7 848	3.9%	6 644	2.0%	3 496	5.2%	8 878	4.1%	6 985	4.2%	7 247	3.0%	5 201	5.8%	10 061	9.3%	16 096	11.7%	20 147