

Table 3. Global average water footprint of primary crops and derived crop products. Period: 1996–2005.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
15	Wheat	1277	342	207	1827
	Wheat flour	1292	347	210	1849
	Wheat bread	1124	301	183	1608
	Dry pasta	1292	347	210	1849
	Wheat pellets	1423	382	231	2036
	Wheat, starch	1004	269	163	1436
	Wheat gluten	2928	785	476	4189
27	Rice, paddy	1146	341	187	1673
	Rice, husked (brown)	1488	443	242	2172
	Rice, broken	1710	509	278	2497
	Rice flour	1800	535	293	2628
	Rice groats and meal	1527	454	249	2230
44	Barley	1213	79	131	1423
	Barley, rolled or flaked grains	1685	110	182	1977
	Malt, not roasted	1662	108	180	1950
	Malt, roasted	2078	135	225	2437
	Beer made from malt	254	16	27	298
56	Maize (corn)	947	81	194	1222
	Maize (corn) flour	971	83	199	1253
	Maize (corn) groats and meal	837	72	171	1081
	Maize (corn), hulled, pearled, sliced or kibbled	1018	87	209	1314
	Maize (corn) starch	1295	111	265	1671
	Maize (corn) oil	1996	171	409	2575
71	Rye	1419	25	99	1544
	Rye flour	1774	32	124	1930
75	Oats	1479	181	128	1788
	Oat groats and meal	2098	257	182	2536
	Oats, rolled or flaked grains	1998	245	173	2416
79	Millet	4306	57	115	4478
83	Sorghum	2857	103	87	3048
89	Buckwheat	2769	144	229	3142
116	Potatoes	191	33	63	287
	Tapioca of potatoes	955	165	317	1436
	Potato flour and meal	955	165	317	1436
	Potato flakes	694	120	230	1044
	Potato starch	1005	173	333	1512
122	Sweet potatoes	324	5	53	383
125	Manioc (cassava)	550	0	13	564
	Tapioca of cassava	2750	1	66	2818
	Flour of cassava	1833	1	44	1878
	Dried cassava	1571	1	38	1610
	Manioc (cassava) starch	2200	1	53	2254
136	Taro (coco yam)	587	3	15	606
137	Yams	341	0	1	343

Table 3. Continued.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
156	Sugar cane	139	57	13	210
	Raw sugar, cane	1107	455	104	1666
	Refined sugar	1184	487	111	1782
	Fructose, chemically pure	1184	487	111	1782
	Cane molasses	350	144	33	527
157	Sugar beet	82	26	25	132
	Raw sugar, beet	535	167	162	865
176	Beans, dry	3945	125	983	5053
181	Broad beans, horse beans, dry	1317	205	496	2018
187	Peas, dry	1453	33	493	1979
191	Chick peas	2972	224	981	4177
195	Cow peas, dry	6841	10	55	6906
197	Pigeon peas	4739	72	683	5494
201	Lentils	4324	489	1060	5874
217	Cashew nuts	12 853	921	444	14 218
220	Chestnuts	2432	174	144	2750
221	Almonds, with shell	4632	1908	1507	8047
	Almonds, shelled or peeled	9264	3816	3015	16 095
222	Walnuts, with shell	2805	1299	814	4918
	Walnuts, shelled or peeled	5293	2451	1536	9280
223	Pistachios	3095	7602	666	11 363
224	Kola nuts	23 345	26	19	23 391
225	Hazelnuts, with shell	3813	1090	354	5258
	Hazelnuts, shelled or peeled	7627	2180	709	10 515
226	Areca nuts	10 621	139	406	11 165
236	Soya beans	2037	70	37	2145
	Soya sauce	582	20	11	613
	Soya paste	543	19	10	572
	Soya curd	2397	83	44	2523
	Soy milk	3574	123	65	3763
	Soya bean flour and meals	2397	83	44	2523
	Soybean oil, refined	3980	137	73	4190
	Soybean oilcake	1690	58	31	1779
242	Groundnuts in shell	2469	150	163	2782
	Groundnuts shelled	3526	214	234	3974
	Groundnut oil, refined	6681	405	442	7529
	Groundnut oilcake	1317	80	87	1484

Table 3. Continued.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
249	Coconuts	2669	2	16	2687
	Copra	2079	1	12	2093
	Coconut (husked)	1247	1	7	1256
	Coconut (copra) oil, refined	4461	3	27	4490
	Coconut/copra oilcake	829	1	5	834
	Coconut (coir) fibre, processed	2433	2	15	2449
254	Oil palm	1057	0	40	1098
	Palm nuts and kernels	2762	1	105	2868
	Palm oil, refined	4787	1	182	4971
	Palm kernel/babassu oil, refined	5202	1	198	5401
	Palm nut/kernel oilcake	802	0	31	833
260	Olives	2470	499	45	3015
	Olive oil, virgin	11 826	2388	217	14 431
	Olive oil, refined	12 067	2437	221	14 726
265	Castor oil seeds	8423	1175	298	9896
	Castor oil	21 058	2938	744	24 740
267	Sunflower seeds	3017	148	201	3366
	Sunflower seed oil, refined	6088	299	405	6792
	Sunflower seed oilcake	1215	60	81	1356
270	Rapeseed	1703	231	336	2271
	Rape oil, refined	3226	438	636	4301
	Rape seed oilcake	837	114	165	1115
280	Safflower seeds	6000	938	283	7221
289	Sesame seed	8460	509	403	9371
	Sesame oil	19 674	1183	936	21 793
292	Mustard seeds	2463	1	345	2809
296	Poppy seeds	1723	0	464	2188
299	Melon seed	5087	56	41	5184
328	Seed cotton	2282	1306	440	4029
	Cotton seeds	755	432	146	1332
	Cotton lint	5163	2955	996	9113
	Cotton linters	1474	844	284	2602
	Cotton-seed oil, refined	2242	1283	432	3957
	Cotton seed oilcake	487	279	94	860
	Cotton, not carded or combed	5163	2955	996	9113
	Cotton yarn waste (including thread waste)	950	544	183	1677
	Garneted stock of cotton	1426	816	275	2517
	Cotton, carded or combed	5359	3067	1034	9460
	Cotton fabric, finished textile	5384	3253	1344	9982
333	Linseed	4730	268	170	5168
	Linseed oil, refined	8618	488	310	9415
	Linseed oilcake	2816	160	101	3077
336	Hempseed	3257	12	417	3685
358	Cabbages and other brassicas	181	26	73	280

Table 3. Continued.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
366	Artichokes	478	242	98	818
367	Asparagus	1524	119	507	2150
372	Lettuce	133	28	77	237
373	Spinach	118	14	160	292
388	Tomatoes	108	63	43	214
	Tomato juice unfermented & not spirited	135	79	53	267
	Tomato juice, concentrated	539	316	213	1069
	Tomato paste	431	253	171	855
	Tomato ketchup	270	158	107	534
	Tomato puree	360	211	142	713
	Peeled tomatoes	135	79	53	267
	Tomato, dried	2157	1265	853	4276
393	Cauliflowers and broccoli	189	21	75	285
	Brussels sprouts	189	21	75	285
394	Pumpkins, squash and gourds	228	24	84	336
397	Cucumbers and gherkins	206	42	105	353
399	Eggplants (aubergines)	234	33	95	362
401	Chillies and peppers, green	240	42	97	379
402	Onions (incl. shallots), green	176	44	51	272
403	Onions, dry	192	88	65	345
406	Garlic	337	81	170	589
	Garlic powder	1297	313	655	2265
414	Beans, green	320	54	188	561
417	Peas, green	382	63	150	595
423	String beans	301	104	143	547
426	Carrots and turnips	106	28	61	195
430	Okra	474	36	65	576
446	Maize, green	455	157	88	700
461	Carobs	4557	334	703	5594
486	Bananas	660	97	33	790
489	Plantains	1570	27	6	1602
490	Oranges	401	110	49	560
	Orange juice	729	199	90	1018
495	Tangerines, mandarins, clement	479	118	152	748
497	Lemons and limes	432	152	58	642
507	Grapefruit	367	85	54	506

Table 3. Continued.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
515	Apples, fresh	561	133	127	822
	Apples, dried	4678	1111	1058	6847
	Apple juice unfermented & not spirited	780	185	176	1141
521	Pears	645	94	183	922
526	Apricots	694	502	92	1287
530	Sour cherries	1098	213	99	1411
531	Cherries	961	531	112	1604
534	Peaches and nectarines	583	188	139	910
536	Plums and sloes	1570	188	422	2180
544	Strawberries	201	109	37	347
547	Raspberries	293	53	67	413
549	Gooseberries	487	8	31	526
550	Currants	457	19	23	499
552	Blueberries	341	334	170	845
554	Cranberries	91	108	77	276
560	Grapes	425	97	87	608
	Grapes, dried	1700	386	347	2433
	Grapefruit juice	490	114	71	675
	Grape wines, sparkling	607	138	124	869
567	Watermelons	147	25	63	235
569	Figs	1527	1595	228	3350
571	Mangoes, mangosteens, guavas	1314	362	124	1800
572	Avocados	849	283	849	1981
574	Pineapples	215	9	31	255
	Pineapple juice	1075	45	153	1273
577	Dates	930	1250	98	2277
591	Cashew apple	3638	34	121	3793
592	Kiwi fruit	307	168	38	514
600	Papayas	399	40	21	460
656	Coffee, green	15 249	116	532	15 897
	Coffee, roasted	18 153	139	633	18 925
661	Cocoa beans	19 745	4	179	19 928
	Cocoa paste	24 015	5	218	24 238
	Cocoa butter, fat and oil	33 626	7	305	33 938
	Cocoa powder	15 492	3	141	15 636
	Chocolate	16 805	198	193	17 196
667	Green and black tea	7232	898	726	8856

Table 3. Continued.

FAOSTAT crop code	Product description	Global average water footprint ($\text{m}^3 \text{ton}^{-1}$)			
		Green	Blue	Grey	Total
677	Hop cones	2382	269	1414	4065
	Hop extract	9528	1077	5654	16 259
687	Pepper of the genus Piper	6540	467	604	7611
689	Chillies and peppers, dry	5869	1125	371	7365
692	Vanilla beans	86 392	39 048	1065	12 6505
693	Cinnamon (canella)	14 853	41	632	15 526
698	Cloves	59 834	30	1341	61 205
702	Nutmeg, mace and cardamoms	30 683	2623	1014	34 319
711	Anise, badian, fennel, coriander	5369	1865	1046	8280
	Coriander seeds	5369	1865	1046	8280
720	Ginger	1525	40	92	1657
748	Peppermint	206	63	19	288
773	Flax fibre and tow	2637	443	401	3481
	Flax fibre, otherwise processed but not spun	2866	481	436	3783
	Flax tow and waste	581	98	88	767
777	Hemp fibre and tow	1824	—	624	2447
	True hemp fibre processed but not spun	2026	—	693	2719
780	Jute and other textile bast fibres	2356	33	217	2605
788	Ramie	3712	201	595	4507
789	Sisal	6112	708	222	7041
	Sisal textile fibres processed but not spun	6791	787	246	7824
800	Agave fibres	6434	9	106	6549
809	Manila fibre (Abaca)	19 376	246	766	20 388
	Abaca fibre, processed but not spun	21 529	273	851	22 654
826	Tobacco, unmanufactured	2021	205	700	2925
836	Natural rubber	12 964	361	422	13 748