

Supplementary Information

CROPGRIDS: A global geo-referenced dataset of 173 crops circa 2020

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Supplementary Tables

Table 1 Matching and aggregation of crop names for the 27 input datasets providing georeferenced crop-specific information and the FAOSTAT dataset. Names in brackets refer to the names used in the original dataset and corresponding aggregation.

Datasets	Crop names in MRF dataset
MRF [1]	abaca, agave, alfalfa, almond, aniseetc, apple, apricot, areca, artichoke, asparagus, avocado, bambara, banana, barley, bean, beeffor, berrynes, blueberry, brazil, broadbean, buckwheat, cabbage, cabbagefor, canaryseed, carob, carrot, carrotfor, cashew, cashewapple, cassava, castor, cauliflower, cerealnes, cherry, chestnut, chickpea, chicory, chilleetc, cinnamon, citrusnes, clove, clover, cocoa, coconut, coffee, cotton, cowpea, cranberry, cucumberetc, currant, date, eggplant, fibrenes, fig, flax, fonio, fornes, fruitnes, garlic, ginger, gooseberry, grape, grapefruitetc, grassnes, greenbean, greenbroadbean, greencorn, greenonion, greenpea, groundnut, hazelnut, hemp, hempseed, hop, jute, jutelikefiber, kapokfiber, kapokseed, karite, kiwi, kolanut, legumenes, lemonlime, lentil, lettuce, linseed, lupin, maize, maizefor, mango, mate, melonetc, melonseed, millet, mixedgrain, mixedgrass, mushroom, mustard, nutmeg, nutnes, oats, oilpalm, oilseedfor, oilseednes, okra, olive, onion, orange, papaya, pea, peachetc, pear, pepper, peppermint, persimmon, pigeonpea, pimento, pineapple, pistachio, plantain, plum, popcorn, poppy, potato, pulsenes, pumpkinetc, pyrethrum, quince, quinoa, ramie, rapeseed, raspberry, rice, rootnes, rubber, rye, ryefor, safflower, sesame, sisal, sorghum, sorghumfor, sourcherry, soybean, spicenes, spinach, stonefruitnes, strawberry, stringbean, sugarbeet, sugarcane, sugarnees, sunflower, swedefor, sweetpotato, tangetc, taro, tea, tobacco, tomato, tritcale, tropicalnes, tung, turnipfor, vanilla, vegetablenes, vegfor, vetch, walnut, watermelon, wheat, yam, yautia
SPAM [2]	banana, barley, bean, cassava, chickpea, cocoa, coconut, coffee (arabica coffee + robusta coffee), cotton, cowpea, groundnut, lentil, maize, millet (pearl millet + small millet), oilpalm, pigeonpea, plaintain, potato, rapeseed, rice, sorghum, soybean, sugarbeet, sugarcane, sunflower, sweetpotato (sweet potato), tea, tobacco, wheat, yams
GAEZ+ 15 [3]	banana, barley, cassava, cotton, groundnut, maize, millet, oilpalm (oilpalmfruit), olive (olives), rapeseed, rice, sorghum, soybean, sugarbeet, sugarcane, sunflower, tobacco, vegfor (vegetables), wheat, yam (Yamsandotherroots)
GEOGLAM [4]	maize, rice, soybean, wheat
OILPA [5]	oilpalm (smallholder + industrial)
RAP [6]	rapeseed
EU [7]	barley, maize, oats, potato (potatoes), rapeseed (rape and turnip rape), rice, rice, soybean (soya), sugarbeet (sugar beet), sunflower, tritcale, wheat (common wheat + durum wheat)
SPAMAF [8]	banana, barley, bean, cassava, chickpea, cocoa, coconut, coffee (arabica coffee + robusta coffee), cotton, cowpea, groundnut, lentil, maize, millet (pearl millet + small millet), oilpalm, pigeonpea, plaintain, potato, rapeseed, rice, sesame (sesameseed), sorghum, soybean, sugarbeet, sugarcane, sunflower, sweetpotato (sweet potato), tea, tobacco, vegfor (vegetables), wheat, yams
AFCAS [9]	cassava
SASOY [10]	soybean
MYSTHA [11]	oilpalm
ASIARICE [12]	rice
CIVGHA [13]	cocoa
UZBTJK [14]	alfalfa, barley, bean (beans), cabbage, carrot (carrots), cotton, grape (vineyard), maize, melonetc (melons), oats, onion (onions), potato (potatoes), pumpkinetc (pumpkin), rice, sorghum, soybean (soybeans), sunflower, tomato (tomatoes), vegfor (vegetables)
USA [15]	alfalfa, almond (almonds), apple (apples), apricot (apricots), asparagus, avocado (avocados), barley, bean (dry beans), blueberry (blueberries), buckwheat, cabbage, carrot (carrots + turnips), cauliflower (cauliflower + broccoli), cherry (cherries), chickpea (chick peas), chilleetc (peppers), clover (clover wildflowers), cotton, cranberry (cranberries), cucumberetc (cucumbers), eggplant (eggplants), garlic, grape (grapes), greencorn (sweet corn), groundnut (peanuts), hop (hops), lentil (lentils), lettuce, linseed (flaxseed), maize (corn), melonetc (cantaloupe + honeydew melon), millet, mustard, oats, olive (olives), onion (onions), orange (oranges), pea (peas), peachetc (nectarines + peaches), pear (pears), peppermint (mint), pistachio (pistachios), plum (plums), popcorn (pop or orn corn), potato (potatoes), pumpkinetc (gourds + pumpkins + squash), rapeseed (rape seed + canola), rice, rye, safflower, sorghum, soybean (soybeans), strawberry (strawberries), sugarbeet (sugarbeets), sugarcane, sunflower, sweetpotato (sweet potatoes), tobacco, tomato (tomatoes), tritcale, vetch, walnut (walnuts), watermelon (watermelons), wheat (durum wheat + spring wheat + winter wheat + speltz)
CA [16]	barley, bean (beans), blueberry, buckwheat, canaryseed, chickpea (chick peas), cranberry, grape (vineyards), hemp, hop (hops), lentil (lentils), linseed (flaxseed), maize (corn), millet, mustard, oats, potato (potatoes), quinoa, rapeseed (canola/rapeseed), rye, safflower, sorghum, soybean (soybeans), sugarbeet (sugarbeets), sunflower, tobacco, tomato (tomatoes), tritcale, vetch, wheat

	(wheat + winter wheat + spring wheat + spelt)
AFG [17]	cotton, rice, wheat
DEU [18]	asparagus, barley (spring barley + winter barley), carrot, grape (grapevine), hop (hops), maize (maize (grain) + maize), oats (spring oats), onion, potato, rapeseed (winter rapeseed), rye (winter rye), strawberry, sugarbeet (sugar beet), sunflower, wheat (winter wheat)
CHNWH [19]	wheat (winter wheat)
CHNMZ [20]	maize
CHNMZWHRI [21]	maize (single maize + rice plus maize + wheat plus maize), rice (single rice + rice plus maize + double rice x 2 + wheat plus rice), wheat (single wheat + wheat plus maize + wheat plus rice)
BGDRICE [22]	rice (Aman + Aus + Boro)
BRASUG [23]	sugarcane
SEN [24]	bambara (vouandzou), cassava, chillietc (chilli), cotton, cowpea, eggplant (aubergine), fonio, groundnut (peanut), maize, millet, okra, rice (irrigated rice + rainfed rice), sesame, sorghum, sweetpotato (sweet potato), tomato (cherry tomato + industrial tomato), watermelon
AU [25]	apple (apples), cotton, grape (grapes), rice, sugarcane, vegfor (vegetables)
FR [26]	grape (vineyards), maize (corn), rice, soybean (soy), sunflower
JP [27]	rice
FAOSTAT	Abaca (manila fibre (abaca)), agave (Agave fibres nes), almond (Almonds, with shell), aniseetc (Anise, badian, fennel, coriander), apple (Apples), apricot (apricots), areca (areca nuts), artichoke (artichokes), asparagus, avocado (avocados), Bambara (Bambara beans), banana (bananas), barley, bean (beans, dry), berrynes (berries nes), blueberry (blueberries), brazil (brazil nuts, with shell), broadbean (broad beans, horse beans, dry), buckwheat, cabbage (cabbages and other brassicas), canaryseed (canary seed), carob (carobs), carrot (carrots and turnips), cashew (cashew nuts, with shell), cashewapple, cassava, castor (castor oil seed), cauliflower (cauliflowers and broccoli), cerealnes (cereals nes), cherry (cherries), chestnut, chickpea (chick peas), chicory (chicory roots), chilleetc (chillies and peppers, green), cinnamon (cinnamon (cannella)), citrusnes (fruit, citrus nes), clove (cloves), cocoa (cocoa, beans), coconut (coconuts), coffee (coffee, green), cotton (seed cotton), cowpea (cow peas, dry), cranberry (cranberries), cucumberetc (cucumbers and gherkins), currant (currants), date (dates), eggplant (eggplants (aubergines)), fibrenes (fibre crops nes), fig (figs), flax (flax fibre and tow), fonio, fruitnes (fruit, fresh nes), garlic, ginger, gooseberry (gooseberries), grape (grapes), grapefruitetc (grapefruit (inc. pomelos)), greenbean (beans, green), greencorn (maize, green), greenonion (onions, shallots, green), greenpea (peas, green), groundnut (groundnuts, with shell), hazelnut (hazelnuts, with shell), hemp (hemp tow waste), hempseed, hop (hops), jute, kapokfiber (kapok fruit), kapokseed (kapok fruit), karite (karite nuts (sheanuts)), kiwi (kiwi fruit), kolanut (kola nuts), lemonlime (lemons and limes), lentil (lentils), lettuce (lettuce and chicory), linseed, lupin (lupins), maize, mango (mangoes, mangosteens, guavas), mate (Mat?), melonetc (melons, other (inc. cantaloupes)), melonseed, millet, mixedgrain (grain, mixed), mushroom (mushrooms and truffles), mustard (mustard seed), nutmeg (nutmeg, mace and cardamoms), nutnes (nut nes), oats, oilpalm (oil palm fruit), oilseednes (oilseeds nes), okra, olive (olives), onion (onion, dry), orange (oranges), papaya (papayas), pea (peas, dry), peachetc (peaches and nectarines), pear (pears), pepper (pepper (piper spp.)), peppermint, persimmon (persimmons), pigeonpea (pigeon peas), pineapple (pineapples), pistachio (pistachios), plantain (plaintains and others), plum (plums and sloes), poppy (poppy seed), potato (potatoes), pulsesnes (pulses nes), pumpkinct (pumpkins, squash and gourds), pyrethrum (pyrethrum, dried), quince (quinces), quinoa, ramie, rapeseed, rasberry (rasberries), rice (rice, paddy), rootnes (roots and tubers nes), rubber (rubber, natural), rye, safflower (safflower seed), sesame (sesame seed), sisal, sorghum, sourcherry (cherries, sour), soybean (soybeans), spicenes (spices nes), spinach, stonefruitnes (fruit, stone nes), strawberry (strawberries), stringbean (string beans), sugarbeet (sugar beet), sugarcane (sugar cane), sugarnees (sugar crops nes), sunflower (sunflower seed), sweetpotato (sweet potatoes), tangetc (tangerines, mandarins, clementines, satsumas), taro (taro (cocoyam)), tea, tobacco (tobacco, unmanufactured), tomato (tomatoes), triticale, tropicalnes (fruit, tropical fresh nes), tung (tung nuts), vanilla, vegfor (vegetables, fresh nes), vetch (vetches), walnut (walnuts, with shell), watermelon (watermelons), wheat, yam (yams), yautia (yautia (cocoyam))

Table 2 The percent of grid cells and countries being updated since 2000 and the selected best-fit datasets used to construct the global maps of harvested area (*HA*) and crop area (*CA*) of each individual crop. % grid cells updated is defined as the number of grid cells identified as a specific crop (i.e., *HA* in CROPGRIDS > 0) with data sourced from datasets more recent than 2000 over the total number of grid cells identified as that specific crop. % countries updated refers to the number of countries being updated with spatial data more recent than 2000 over the total number of countries producing that specific crop. ΔHA_{Grid} refers to the change in the world's harvested area between 2000 and 2020 estimated based on georeferenced maps in MRF and CROPGRIDS. ΔHA_{FAO} refers to the change in the world's harvested area between 2000 and 2020 estimated using FAOSTAT database. *refers to temporary crops and ^refers to permanent crops.

Crops	% grid cell updated	Number of countries updated	% countries updated out of all producing countries	Datasets selected [% contribution of the dataset to the global map]	ΔHA_{Grids} (%)	ΔHA_{FAO} (%)
^abaca	0.00	0	0.00	MRF [100.000%]	0.0	39.6
^agave	0.00	0	0.00	MRF [100.000%]	0.0	-0.8
*alfalfa	24.61	3	3.95	MRF [75.392%, UZBTJK [0.009%], USA [24.600%]]	-6.3	-
^almond	0.49	1	1.12	MRF [99.511%], USA [0.489%]	37.3	30.1
*aniseetc	0.00	0	0.00	MRF [100.000%]	0.0	311.0
^apple	1.57	1	0.86	MRF [98.430%], USA [1.570%]	0.2	-12.4
^apricot	0.02	1	0.88	MRF [99.982%], USA [0.018%]	-2.1	28.9
^areca	0.00	0	0.00	MRF [100.000%]	0.0	166.5
*artichoke	0.00	0	0.00	MRF [100.000%]	0.0	-6.5
*asparagus	1.98	2	2.13	MRF [98.022%], USA [0.086%], DEU [1.892%]	6.4	48.6
^avocado	0.05	1	0.94	MRF [99.946%], USA [0.054%]	0.2	144.7
*bambara	1.01	1	4.35	MRF [98.986%], SEN [1.014%]	17.8	322.9
^banana	99.87	146	92.99	MRF [0.128%], SPAM [55.200%], GAEZ15 [25.171%], SPAMAF [19.501%]	37.3	19.0
*barley	97.95	122	89.71	MRF [2.050%], SPAM [49.736%], GAEZ15 [20.793%], EU [11.449%], SPAMAF [4.886%], USA [6.261%], CA [3.213%], DEU [1.612%]	-10.5	-2.9
*bean	95.21	153	92.73	MRF [4.794%], SPAM [78.242%], SPAMAF [14.129%], UZBTJK [0.000%], USA [2.395%], CA [0.440%]	24.9	44.4
*beetfor	0.00	0	0.00	MRF [100.000%]	0.0	-
^berrynes	0.00	0	0.00	MRF [100.000%]	0.0	91.7
^blueberry	10.63	2	5.41	MRF [89.374%], USA [10.112%], CA [0.514%]	234.9	173.3
^brazil	0.00	0	0.00	MRF [100.000%]	0.0	0.0
*broadbean	0.00	0	0.00	MRF [100.000%]	0.0	5.5
*buckwheat	0.04	1	1.39	MRF [99.958%], CA [0.042%]	-0.3	-46.6
*cabbage	0.26	1	0.61	MRF [99.737%], USA [0.263%]	-3.2	-10.5
*cabbagefor	0.00	0	0.00	MRF [100.000%]	0.0	-
*canaryseed	1.40	1	3.13	MRF [98.600%], CA [1.400%]	-34.6	4.4
^carob	0.00	0	0.00	MRF [100.000%]	0.0	-74.3
*carrot	0.31	2	1.34	MRF [99.690%], UZBTJK [0.000%], USA [0.310%]	-3.2	7.5
*carrotfor	0.00	0	0.00	MRF [100.000%]	0.0	-
^cashew	0.00	0	0.00	MRF [100.000%]	0.0	99.0
^cashewapple	0.00	0	0.00	MRF [100.000%]	0.0	-30.8
*cassava	96.29	111	89.52	MRF [3.711%], SPAM [15.464%], GAEZ15 [47.232%], SPAMAF [25.473%], AFCAS [8.119%]	68.6	62.3
*castor	0.00	0	0.00	MRF [100.000%]	0.0	-20.1
*cauliflower	0.16	1	0.81	MRF [99.838%], USA [0.162%]	-0.6	61.0
*cerealnes	0.00	0	0.00	MRF [100.000%]	0.0	72.1
^cherry	0.00	0	0.00	MRF [100.000%]	0.0	32.4

^chestnut	0.00	0	0.00	MRF [100.000%]	0.0	96.5
*chickpea	88.75	92	81.42	MRF [11.252%, SPAM [82.797%, SPAMAF [4.190%, USA [1.496%, CA [0.265%]	21.4	33.4
*chicory	0.00	0	0.00	MRF [100.000%]	0.0	-91.1
*chilleetc	0.39	1	0.68	MRF [99.608%, USA [0.392%]	-1.4	27.0
^cinnamon	0.00	0	0.00	MRF [100.000%]	0.0	104.8
^citrusnes	0.00	0	0.00	MRF [100.000%]	0.0	40.8
^clove	0.00	0	0.00	MRF [100.000%]	0.0	34.1
*clover	9.71	1	1.85	MRF [90.287%, USA [9.713%]	3.1	-
^cocoa	89.07	70	88.61	MRF [10.927%, SPAM [75.579%, SPAMAF [11.356%, CIVGHA [2.138%]	69.5	65.7
^coconut	97.46	98	84.48	MRF [2.535%, SPAM [86.678%, SPAMAF [10.787%]	7.8	6.2
^coffee	96.63	90	83.33	MRF [3.368%, SPAM [96.632%]	6.2	7.1
*cotton	94.02	116	89.23	MRF [5.983%, SPAM [25.250%, GAEZ15 [38.402%, SPAMAF [21.856%, USA [7.832%, AFG [0.676%]	14.3	2.1
*cowpea	69.70	73	83.91	MRF [30.298%, SPAM [23.328%, SPAMAF [46.374%]	38.6	71.5
^cranberry	0.06	1	4.35	MRF [99.944%, CA [0.056%]	27.7	16.4
*cucumberetc	0.42	1	0.63	MRF [99.578%, USA [0.422%]	-2.3	5.3
^currant	0.00	0	0.00	MRF [100.000%]	0.0	5.7
^date	0.00	0	0.00	MRF [100.000%]	0.0	19.7
*eggplant	0.03	2	1.57	MRF [99.970%, USA [0.019%, SEN [0.011%]	-0.1	26.0
^fibrenes	0.00	0	0.00	MRF [100.000%]	0.0	51.8
^fig	0.00	0	0.00	MRF [100.000%]	0.0	4.7
*flax	0.00	0	0.00	MRF [100.000%]	0.0	-36.2
*fonio	1.17	1	7.69	MRF [98.825%, SEN [1.175%]	1.1	131.2
*fornes	0.00	0	0.00	MRF [100.000%]	0.0	-
^fruitnes	0.00	0	0.00	MRF [100.000%]	0.0	56.2
*garlic	0.19	1	0.75	MRF [99.807%, USA [0.193%]	-0.3	49.7
^ginger	0.00	0	0.00	MRF [100.000%]	0.0	41.7
^gooseberry	0.00	0	0.00	MRF [100.000%]	0.0	-51.0
^grape	2.77	4	3.20	MRF [97.225%, USA [1.257%, CA [0.065%, DEU [0.055%, FR [1.398%]	3.8	-4.5
^grapefruitetc	0.00	0	0.00	MRF [100.000%]	0.0	24.1
*grassnes	0.00	0	0.00	MRF [100.000%]	0.0	-
*greenbean	0.00	0	0.00	MRF [100.000%]	0.0	16.4
*greenbroadbean	0.00	0	0.00	MRF [100.000%]	0.0	-
*greencorn	3.02	1	1.04	MRF [96.983%, USA [3.017%]	-16.3	3.2
*greenonion	0.00	0	0.00	MRF [100.000%]	0.0	-
*greenpea	0.00	0	0.00	MRF [100.000%]	0.0	66.6
*groundnut	95.86	132	91.03	MRF [4.143%, SPAM [39.951%, GAEZ15 [23.109%, SPAMAF [30.607%, USA [2.190%]	25.2	31.2
^hazelnut	0.00	0	0.00	MRF [100.000%]	0.0	103.3
*hemp	0.20	1	2.04	MRF [99.797%, CA [0.203%]	24.9	10.3
*hempseed	0.00	0	0.00	MRF [100.000%]	0.0	8.5
^hop	0.32	3	3.90	MRF [99.682%, USA [0.295%, CA [0.002%, DEU [0.020%]	24.1	16.9
*jute	0.00	0	0.00	MRF [100.000%]	0.0	-3.4
*jutelikefiber	0.00	0	0.00	MRF [100.000%]	0.0	-
^kapokfiber	0.00	0	0.00	MRF [100.000%]	0.0	-13.6
^kapokseed	0.00	0	0.00	MRF [100.000%]	0.0	-13.6
^karite	0.00	0	0.00	MRF [100.000%]	0.0	83.0
^kiwi	0.00	0	0.00	MRF [100.000%]	0.0	114.8
^kolanut	0.00	0	0.00	MRF [100.000%]	0.0	47.3
*legumenes	0.00	0	0.00	MRF [100.000%]	0.0	-

^lemonlime	0.00	0	0.00	MRF [100.000%]	0.0	64.4
*lentil	94.79	77	75.49	MRF [5.211%, SPAM [88.235%, SPAMAF [2.392%, USA [1.901%, CA [2.262%]	42.9	27.7
*lettuce	0.00	0	0.00	MRF [100.000%]	0.0	42.0
*linseed	1.53	2	2.15	MRF [98.471%, USA [0.902%, CA [0.627%]	-16.5	36.7
*lupin	0.00	0	0.00	MRF [100.000%]	0.0	-32.3
*maize	97.53	184	96.84	MRF [2.474%, SPAM [15.739%, GAEZ15 [40.987%, GEOGLAM [1.053%, EU [5.885%, SPAMAF [17.297%, USA [10.556%, CA [0.813%, CHNMZ [5.196%]	49.7	46.1
*maizefor	0.00	0	0.00	MRF [100.000%]	0.0	-
^mango	0.00	0	0.00	MRF [100.000%]	0.0	65.6
^mate	0.00	0	0.00	MRF [100.000%]	0.0	-2.1
*melonetc	0.22	3	2.22	MRF [99.779%, UZBTJK [0.001%, USA [0.221%]	-4.1	4.3
*melonseed	0.00	0	0.00	MRF [100.000%]	0.0	83.1
*millet	91.56	110	84.62	MRF [8.444%, SPAM [47.674%, GAEZ15 [19.173%, SPAMAF [24.672%, CA [0.036%]	-5.9	-16.1
*mixedgrain	0.00	0	0.00	MRF [100.000%]	0.0	-50.8
*mixedgrass	0.00	0	0.00	MRF [100.000%]	0.0	-
*mushroom	0.00	0	0.00	MRF [100.000%]	0.0	-
*mustard	0.75	2	3.03	MRF [99.247%, USA [0.490%, CA [0.262%]	-19.1	-13.5
^nutmeg	0.00	0	0.00	MRF [100.000%]	0.0	117.1
^nutnes	0.00	0	0.00	MRF [100.000%]	0.0	69.6
*oats	13.78	15	13.27	MRF [86.224%, EU [2.435%, UZBTJK [0.000%, USA [8.498%, CA [1.763%, DEU [1.080%]	-8.2	-22.3
^oilpalm	96.75	67	77.01	MRF [3.247%, SPAM [4.039%, GAEZ15 [24.583%, OIPA [31.094%, SPAMAF [37.036%]	147.7	174.9
*oilseedfor	0.00	0	0.00	MRF [100.000%]	0.0	-
*oilseednes	0.00	0	0.00	MRF [100.000%]	0.0	24.6
*okra	0.30	1	1.72	MRF [99.703%, SEN [0.297%]	1.6	174.1
^olive	26.95	35	48.61	MRF [73.046%, GAEZ15 [26.954%]	48.1	52.8
*onion	0.81	2	1.21	MRF [99.188%, USA [0.412%, DEU [0.400%]	1.6	89.7
^orange	0.27	1	0.67	MRF [99.729%, USA [0.271%]	-1.0	7.7
^papaya	0.00	0	0.00	MRF [100.000%]	0.0	36.1
*pea	3.73	2	1.45	MRF [96.268%, USA [2.328%, CA [1.404%]	15.4	20.2
^peachetc	1.01	1	0.86	MRF [98.992%, USA [1.008%]	-3.8	15.1
^pear	0.25	1	0.85	MRF [99.753%, USA [0.247%]	-0.4	-10.1
^pepper	0.00	0	0.00	MRF [100.000%]	0.0	62.0
*peppermint	18.93	1	16.67	MRF [81.072%, USA [18.928%]	932.2	46.4
^persimmon	0.00	0	0.00	MRF [100.000%]	0.0	84.1
*pigeonpea	99.75	36	87.80	MRF [0.245%, SPAM [95.928%, SPAMAF [3.827%]	25.7	29.4
^pimento	0.00	0	0.00	MRF [100.000%]	0.0	-
^pineapple	0.00	0	0.00	MRF [100.000%]	0.0	43.9
^pistachio	0.82	1	2.22	MRF [99.177%, USA [0.823%]	55.2	84.9
^plantain	88.57	70	93.33	MRF [11.433%, SPAM [47.183%, SPAMAF [41.384%]	24.1	46.0
^plum	0.25	1	0.83	MRF [99.750%, USA [0.250%]	-1.3	19.0
*popcorn	100.00	1	100.00	USA [100.000%]	Inf	-
*poppy	0.00	0	0.00	MRF [100.000%]	0.0	-55.0
*potato	94.10	152	86.36	MRF [5.901%, SPAM [74.933%, EU [4.785%, SPAMAF [11.093%, USA [2.115%, CA [0.255%, DEU [0.919%]	-4.5	-15.1
*pulseses	0.00	0	0.00	MRF [100.000%]	0.0	41.3
*pumpkinetc	1.09	2	1.40	MRF [98.910%, UZBTJK [0.000%, USA [1.090%]	0.1	3.2
*pyrethrum	0.00	0	0.00	MRF [100.000%]	0.0	-26.0

^quince	0.00	0	0.00	MRF [100.000%]	0.0	60.9
*quinoa	0.10	1	11.11	MRF [99.902%, CA [0.098%]	1.9	181.9
^ramie	0.00	0	0.00	MRF [100.000%]	0.0	-66.2
*rapeseed	98.89	87	84.47	MRF [1.106%, SPAM [49.768%, GAEZ15 [30.302%, RAP [4.487%, EU [11.617%, SPAMAF [0.313%, USA [2.407%]	43.4	32.3
^rasberry	0.00	0	0.00	MRF [100.000%]	0.0	32.1
*rice	97.54	155	95.68	MRF [2.461%, SPAM [18.789%, GAEZ15 [31.324%, GEOGLAM [3.225%, EU [0.158%, SPAMAF [21.985%, ASIARICE [7.947%, USA [1.428%, CHNMZWHR [10.856%, BGDRICE [0.476%, FR [0.014%, JP [1.338%]	7.2	5.9
*rootnes	0.00	0	0.00	MRF [100.000%]	0.0	47.9
^rubber	0.00	0	0.00	MRF [100.000%]	0.0	73.6
*rye	5.51	21	23.08	MRF [94.489%, EU [4.069%, CA [0.372%, DEU [1.071%]	-12.8	-54.7
*ryefor	0.00	0	0.00	MRF [100.000%]	0.0	-
*safflower	0.93	1	1.32	MRF [99.066%, USA [0.934%]	-1.8	-9.4
*sesame	0.05	1	0.84	MRF [99.954%, SEN [0.046%]	0.0	88.5
^sisal	0.00	0	0.00	MRF [100.000%]	0.0	-36.2
*sorghum	97.53	137	86.16	MRF [2.473%, SPAM [46.227%, GAEZ15 [19.192%, SPAMAF [22.833%, UZBTJK [0.001%, USA [9.247%, CA [0.027%]	21.9	-3.6
*sorghumfor	0.00	0	0.00	MRF [100.000%]	0.0	-
^sourcherry	0.00	0	0.00	MRF [100.000%]	0.0	-3.6
*soybean	99.89	142	94.67	MRF [0.105%, SPAM [26.261%, GAEZ15 [30.229%, GEOGLAM [1.985%, EU [3.880%, SPAMAF [11.550%, SASOY [9.736%, UZBTJK [0.000%, USA [14.276%, CA [1.167%, FR [0.809%]	75.0	71.0
^spicenes	0.00	0	0.00	MRF [100.000%]	0.0	116.0
*spinach	0.00	0	0.00	MRF [100.000%]	0.0	35.9
^stonefruitnes	0.00	0	0.00	MRF [100.000%]	0.0	18.9
^strawberry	0.00	0	0.00	MRF [100.000%]	0.0	21.0
*stringbean	0.00	0	0.00	MRF [100.000%]	0.0	-37.5
*sugarbeet	92.56	76	84.44	MRF [7.443%, SPAM [51.972%, GAEZ15 [22.276%, EU [16.567%, SPAMAF [1.742%]	-21.8	-27.7
*sugarcane	92.56	114	85.71	MRF [7.443%, SPAM [25.525%, GAEZ15 [39.370%, SPAMAF [16.589%, USA [0.986%, BRASUG [10.087%]	34.6	36.5
*sugarnes	0.00	0	0.00	MRF [100.000%]	0.0	0.7
*sunflower	91.31	103	82.40	MRF [8.688%, SPAM [34.162%, GAEZ15 [25.438%, EU [17.434%, SPAMAF [11.340%, USA [2.823%, CA [0.114%]	25.4	31.0
*swedefor	0.00	0	0.00	MRF [100.000%]	0.0	-
*sweetpotato	97.66	133	86.36	MRF [2.343%, SPAM [67.279%, SPAMAF [29.803%, USA [0.575%]	-1.9	-24.8
^tangetc	0.00	0	0.00	MRF [100.000%]	0.0	78.6
*taro	0.00	0	0.00	MRF [100.000%]	0.0	25.7
^tea	82.52	70	64.81	MRF [17.481%, SPAM [63.990%, SPAMAF [18.529%]	39.7	115.8
*tobacco	69.61	147	89.63	MRF [30.393%, SPAM [19.717%, GAEZ15 [32.010%, SPAMAF [16.795%, USA [1.069%, CA [0.016%]	-13.7	-23.5
*tomato	0.31	3	1.74	MRF [99.688%, USA [0.274%, CA [0.037%, SEN [0.001%]	-1.7	30.5
*triticale	13.88	13	21.67	MRF [86.125%, EU [0.376%, USA [13.183%, CA [0.316%]	9.8	55.0
^tropicalnes	0.00	0	0.00	MRF [100.000%]	0.0	71.1
^tung	0.00	0	0.00	MRF [100.000%]	0.0	7.7
*turnipfor	0.00	0	0.00	MRF [100.000%]	0.0	-
^vanilla	0.00	0	0.00	MRF [100.000%]	0.0	139.2
*vegetablenes	0.00	0	0.00	MRF [100.000%]	0.0	-

*vegfor	87.01	174	95.08	MRF [12.988%], GAEZ15 [75.169%], SPAMAF [11.641%], AU [0.203%]	Inf	42.2
*vetch	0.18	2	3.17	MRF [99.823%], USA [0.131%], CA [0.046%]	0.4	-62.7
^walnut	0.39	1	1.16	MRF [99.605%], USA [0.395%]	23.2	86.8
*watermelon	0.69	2	1.40	MRF [99.308%], USA [0.456%], SEN [0.236%]	1.9	-4.7
*wheat	96.08	137	89.54	MRF [3.922%], SPAM [34.719%], GAEZ15 [19.900%], GEOGLAM [2.854%], EU [8.440%], SPAMAF [6.613%], USA [13.370%], CA [2.783%], AFG [1.157%], DEU [1.159%], CHNWH [5.081%]	5.5	1.3
*yam	90.07	105	92.92	MRF [9.934%], SPAM [46.534%], GAEZ15 [24.738%], SPAMAF [18.793%]	172.7	120.9
*yautia	0.00	0	0.00	MRF [100.000%]	0.0	-25.3

Table 3: Descriptions of crop harvested area data obtained from various national statistics bureaus.

Country name	Number of subnational units	Number of crops	Crops	Temporal coverage	Data link
Albania	0	15	alfalfa, barley, grape, greencorn, maize, oats, olive, potato, pulseses, rye, soybean, sugarbeet, sunflower, tobacco, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Algeria	43	25	alfalfa, artichoke, barley, bean, carrot, chickpea, date, fig, grape, grapefruitetc, greenbean, lemonlime, lentil, maize, oats, olive, onion, orange, pea, potato, sorghum, tanetc, tobacco, tomato, wheat	2015 - 2016	https://www.ons.dz/spp.php?rubrique379
Argentina	15	8	barley, canaryseed, cotton, oats, pea, rice, safflower, tea	2015 - 2020	https://datoestimaciones.magyp.gob.ar/reportes.php?reporte=Estimaciones
Armenia	0	29	barley, bean, beetfor, cabbage, carrot, cauliflower, chilleetc, cucumberetc, eggplant, flax, garlic, grape, greenbean, greenpea, lentil, maize, maizefor, melonetc, melonseed, oats, onion, pea, potato, sugarbeet, sunflower, tobacco, tomato, walnut, wheat	2016 - 2020	https://www.armstat.am/en/?nid=82&year=2022
Australia	8	33	banana, barley, blueberry, cabbage, carrot, cauliflower, chickpea, cotton, grape, greenbean, greencorn, greenpea, groundnut, kiwi, lentil, lettuce, lupin, maize, melonet, mushroom, oats, onion, pineapple, potato, pumpkinetc, rapeseed, rice, sorghum, strawberry, sugarcane, tomato, triticale, wheat	2015 - 2020	https://www.abs.gov.au/statistics/industry/agriculture/agricultural-commodities-australia
Austria	9	25	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulseses, rapeseed, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Azerbaijan	10	52	almond, apple, apricot, barley, bean, cabbage, carrot, cauliflower, cherry, chestnut, cotton, cranberry, cucumberetc, eggplant, fig, garlic, grape, greenpea, hazelnut, kiwi, lemonlime, lentil, maize, melonetc, millet, oats, olive, onion, orange, pea, peachetc, pear, persimmon, pistachio, plum, potato, pumpkinetc, quince, rice, rye, sorghum, sourcherry, sugarbeet, sunflower, tanetc, tea, tobacco, tomato, vetch, walnut, watermelon, wheat	2015 - 2020	https://stat.gov.az/source/agriculture/
Bangladesh	7	43	areca, banana, barley, cabbage, carrot, cauliflower, chickpea, chilleetc, coconut, cotton, cucumberetc, garlic, ginger, grapefruitetc, greenbean, jute, lemonlime, lentil, linseed, maize, mango, melonetc, olive, onion, orange, papaya, pea, peppermint, pigeonpea, pineapple, potato, pumpkinetc, rice, sesame, soybean, strawberry, sugarcane, sunflower, sweetpotato, tea, tobacco, watermelon, wheat	2015 - 2020	http://www.bbs.gov.bd/site/page/453af260-6aea-4331-b4a5-7b66fe63ba61/
Belarus	6	11	barley, buckwheat, flax, maize, oats, potato, rapeseed, rye, sugarbeet, triticale, wheat	2015 - 2020	http://dataportal.belstat.gov.by/Indicators/Preview?key=292487#
Belgium	2	22	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, maize, oats, oilseednes, pea, potato, pulseses, rapeseed, rootnes, rye, sugarbeet, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Bosnia and Herzegovina	0	22	alfalfa, barley, bean, beetfor, cabbage, carrot, chilleetc, clover, cucumberetc, garlic, maize, maizefor, oats, onion, pea, potato, rye, soybean, tobacco, tomato, triticale, wheat	2016 - 2020	http://fzs.ba/index.php/publikacije/saopcenjapriopcenja/poljoprivreda-i-ribarstvo/
Botswana	10	7	groundnut, maize, melonetc, millet, sorghum, sunflower, watermelon	2019	https://www.statsbots.org.bw/latest-publications?title=&field_keywords_value=&field_release_date_value%5Bmin%5D%5Bdate%5D=&field_release_date_value%5Bmax%5D%5Bdate%5D=&field

						_sector_nid=43
Brunei	0	1	rice	2021		http://www.agriculture.gov.bn/SitePages/Agriculture%20and%20Agrifood's%20Statistic.aspx
Bulgaria	0	25	alfalfa, barley, broadbean, grape, greencorn, hemp, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020		https://ec.europa.eu/eurostat/web/agriculture/data/database
Burkina Faso	0	13	bambara, cotton, cowpea, fonio, groundnut, maize, millet, potato, rice, sesame, sorghum, soybean, yam	2015 - 2020		http://www.cns.bf/basecns/cns/index.php
Cambodia	23	14	banana, cashew, cassava, coconut, maize, mango, orange, pineapple, rice, rubber, sesame, soybean, sugarcane, sweetpotato	Rice:2015 - 2019 Other: 2019		http://nis.gov.kh/index.php/en/about/31-cas/110-cas2020
Cameroon	5	18	bambara, banana, bean, cassava, cowpea, groundnut, maize, millet, okra, onion, plantain, potato, rice, sorghum, soybean, taro, tomato, yam	2018 - 2019		https://www.minader.cm/index.php/2022/03/22/assessment-of-the-2019-2020-crop-year-and-food-availability-in-the-adamawa-east-far-north-north-and-west-regions/
Canada	10	55	apple, apricot, asparagus, barley, bean, blueberry, buckwheat, cabbage, canaryseed, carrot, cauliflower, cherry, chickpea, chilleetc, cranberry, cucumberetc, currant, eggplant, flax, garlic, grape, greenbean, greencorn, greenonion, greenpea, hemp, lentil, lettuce, maize, maizefor, melonetc, mixedgrain, mustard, oats, onion, pea, peachetc, pear, plum, potato, pumpkinetc, rapeseed, raspberry, rye, sourcherry, soybean, spinach, strawberry, sugarbeet, sunflower, sweetpotato, tomato, triticale, watermelon, wheat	2015 - 2020		https://www150.statcan.gc.ca/t1/tbl1/en/
Chile	13	68	almond, apple, apricot, artichoke, asparagus, avocado, barley, bean, blueberry, cabbage, carrot, cauliflower, cherry, chestnut, chickpea, chicory, chilleetc, cranberry, cucumberetc, date, fig, garlic, grape, grapefruitetc, greenbean, greencorn, greenonion, greenpea, hazelnut, kiwi, lemonlime, lentil, lettuce, lupin, maize, mango, melonetc, oats, olive, onion, orange, papaya, pea, peachetc, pear, persimmon, pimento, pistachio, plantain, plum, potato, pumpkinetc, quince, rapeseed, raspberry, rice, rye, sourcherry, spinach, strawberry, sugarbeet, tanetc, tobacco, tomato, triticale, walnut, watermelon, wheat	2015 - 2020		https://www.odepa.gob.cl/estadisticas-del-sector/estadisticas-productivas
China	31	10	bean, cotton, groundnut, rapeseed, rice, sugarbeet, sugarcane, tea, tobacco, wheat	National: 2015 - 2020 Subnational: 2020		http://www.stats.gov.cn/tjsj/ndsj/2021/indexeh.htm
Colombia	31	74	agave, alfalfa, apple, asparagus, avocado, banana, barley, bean, blueberry, broadbean, cabbage, carob, carrot, cashew, castor, cauliflower, chickpea, chilleetc, cocoa, coconut, coffee, cotton, cucumberetc, date, eggplant, fig, garlic, ginger, grape, grapefruitetc, greenbean, greenonion, groundnut, lemonlime, lentil, lettuce, maize, maizefor, mango, melonetc, mushroom, oats, oilpalm, onion, orange, papaya, pea, peachetc, pear, peppermint, pimento, plantain, plum, potato, pumpkinetc, quinoa, rapeseed, rice, rubber, rye, sesame, sorghum, soybean, spinach, strawberry, sugarcane, sunflower, sweetpotato, tanetc, tea, tobacco, tomato, wheat, yam	2015 - 2020		https://www.agronet.gov.co/estadistica/Paginas/home.aspx?cod=1
Costa Rica	7	12	bean, coffee, maize, melonetc, oilpalm, onion, orange, pineapple, potato, rice, sugarcane, watermelon	2018 - 2020		http://www.sepsa.go.cr/productos_BEА.html
Croatia	0	22	alfalfa, barley, broadbean, grape, greencorn, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020		https://ec.europa.eu/eurostat/web/agriculture/data/database
Cyprus	0	13	alfalfa, barley, broadbean, grape, greencorn, oats,	2015 - 2020		https://ec.europa.eu/eu

			oilseednes, olive, pea, potato, pulsenes, triticale, wheat		rostat/web/agriculture/data/database
Czech Republic	5	23	alfalfa, barley, broadbean, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, soybean, sugarbeet, sunflower, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
D.R. Congo	10	9	bean, cassava, groundnut, maize, potato, rice, soybean, taro, yam	2015 - 2018	https://minagri.gouv.cd/publications/
Denmark	0	14	alfalfa, barley, broadbean, greencorn, maize, oats, pea, potato, rapeseed, rootnes, rye, sugarbeet, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Dominican Republic	0	41	avocado, banana, bean, cabbage, carrot, cassava, cauliflower, cherry, chilleetc, coconut, coffee, cucumberetc, eggplant, garlic, grapefruitetc, groundnut, lemonlime, lettuce, maize, mango, melonetc, okra, onion, orange, papaya, pigeonpea, pineapple, plantain, potato, pumpkinetc, rice, sorghum, stringbean, sugarcane, sweetpotato, tangetc, tobacco, tomato, watermelon, yam, yautia	2015 - 2020	https://www.one.gob.do/datos-y-estadisticas/temas/estadisticas-economicas/estadisticas-sectoriales/agricultura-ganaderia-silvicultura-y-pesca/
Egypt	27	63	alfalfa, almond, apple, apricot, artichoke, banana, barley, bean, broadbean, cabbage, cauliflower, cherry, chickpea, chilleetc, clover, cotton, cucumberetc, date, eggplant, fig, flax, garlic, grape, grapefruitetc, greenbean, greenbroadbean, greenonion, greenpea, groundnut, lemonlime, lentil, lupin, maize, mango, melonetc, okra, olive, onion, orange, pea, peachetc, pear, pepper, persimmon, pistachio, plum, potato, pumpkinetc, rice, sesame, sorghum, soybean, spinach, strawberry, sugarbeet, sugarcane, sunflower, sweetpotato, tangetc, taro, tomato, watermelon, wheat	2017	https://censusinfo.camas.gov.eg/Metadata-en-v4.2/index.php/catalog/399
Estonia	0	14	barley, broadbean, greencorn, linseed, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
FYR Macedonia	0	18	alfalfa, barley, broadbean, grape, greencorn, maize, oats, pea, potato, rapeseed, rice, rootnes, rye, soybean, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Finland	0	11	barley, broadbean, linseed, oats, oilseednes, pea, potato, rapeseed, rye, sugarbeet, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
France	22	27	barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Germany	16	22	barley, broadbean, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Greece	13	25	alfalfa, barley, broadbean, grape, greencorn, hemp, linseed, lupin, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rice, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Guam	0	35	banana, cabbage, chilleetc, cinnamon, clover, cocoa, coconut, coffee, cotton, cowpea, cranberry, cucumberetc, currant, date, eggplant, fig, flax, garlic, ginger, gooseberry, grape, grapefruitetc, greencorn, lemonlime, melonetc, orange, papaya, pumpkinetc, quince, quinoa, rapeseed, raspberry, rice, rye, watermelon	2015 - 2020	https://www.fsa.usda.gov/news-room/efoia/electronic-reading-room/frequently-requested-information/crop-acreage-data/index
Hungary	0	25	alfalfa, barley, broadbean, grape, greencorn, hemp, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Iceland	0	4	barley, potato, rapeseed, rootnes	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
India	31	19	barley, castor, chickpea, cotton, groundnut, jute, lentil, linseed, maize, millet, pigeonpea, rice, safflower, sesame, sorghum, soybean, sugarcane,	2016 - 2020	https://eands.dacnet.nic.in/APY_96_To_06.htm

			sunflower, wheat		
Iran	28	3	barley, rice, wheat	2014	https://iranidataportals.syr.edu/socio-economic-data/statistical-yearbook
Ireland	0	14	alfalfa, barley, broadbean, greencorn, hemp, linseed, oats, oilseednes, pea, potato, rapeseed, rootnes, sunflower, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Italy	20	27	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, lupin, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Japan	47	29	apple, apricot, barley, buckwheat, cabbage, carrot, chilleetc, cucumberetc, eggplant, grape, greenonion, lettuce, melonetc, onion, peachetc, pear, potato, pumpkinetc, rapeseed, rice, soybean, spinach, strawberry, sugarbeet, sugarcane, sweetpotato, taro, tea, tomato	National: 2018 - 2019 subnational; 2019	https://www.stat.go.jp/english/data/nenkan/71nenkan/1431-08.html
Laos	16	9	coffee, cotton, groundnut, maize, rice, soybean, sugarcane, tea, tobacco	2015 - 2020	https://laosis.lsb.gov.la/tblInfo/TblInfoList.do
Latvia	0	18	alfalfa, barley, broadbean, flax, greencorn, hemp, linseed, lupin, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Lithuania	0	20	alfalfa, barley, broadbean, greencorn, hemp, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, soybean, sugarbeet, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Luxembourg	0	17	barley, broadbean, grape, greencorn, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, soybean, sunflower, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Malta	0	2	grape, potato	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Mexico	32	91	agave, alfalfa, aniseetc, apple, apricot, artichoke, asparagus, avocado, barley, bean, blueberry, broadbean, cabbage, canaryseed, carob, carrot, cashew, cassava, cauliflower, cherry, chickpea, clover, cocoa, coconut, coffee, cotton, date, eggplant, fig, garlic, ginger, grape, grapefruitetc, greenbean, greenbroadbean, greencorn, groundnut, lemonlime, lentil, lettuce, linseed, maize, maizefor, mango, melonetc, millet, mushroom, oats, oilpalm, okra, olive, onion, orange, papaya, pea, peachetc, pear, peppermint, persimmon, pimento, pineapple, pistachio, plantain, plum, popcorn, potato, pumpkinetc, quince, rapeseed, raspberry, rice, rubber, rye, safflower, sesame, sorghum, sorghumfor, soybean, spinach, strawberry, sugarcane, sunflower, sweetpotato, tangetc, taro, tobacco, tomato, triticale, turnipfor, watermelon, wheat	2018	https://nube.siap.gob.mx/cierreagricola/
Montenegro	0	9	alfalfa, barley, grape, maize, oats, olive, potato, rye, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Namibia	0	2	maize, wheat	2015 - 2020	https://www.nab.com.na/agronomy/grain-statistics/
Netherlands	0	21	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, maize, oats, oilseednes, potato, pulsenes, rapeseed, rootnes, rye, soybean, sugarbeet, sunflower, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Pakistan	3	37	almond, apple, apricot, banana, barley, castor, chickpea, chilleetc, cotton, date, garlic, ginger, grape, groundnut, hemp, lentil, linseed, maize, mango, millet, onion, pea, peachetc, pear, plum, potato, rice, safflower, sesame, sorghum, soybean, sugarbeet, sugarcane, sunflower, tobacco, tomato, wheat	2015 - 2018	http://www.mnfsr.gov.pk/pubDetails.aspx
Panama	12	4	bean, maize, rice, sugarcane	2016 - 2020	https://www.inec.gob.pa/publicaciones/
Poland	16	25	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rootnes, rye, soybean, sugarbeet, sunflower, tobacco, triticale,	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database

			wheat		
Portugal	0	20	barley, broadbean, grape, greencorn, hop, lupin, maize, oats, oilseednes, olive, potato, pulsenes, rice, rootnes, rye, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Puerto Rico	0	71	alfalfa, avocado, banana, bean, cabbage, carrot, cassava, cauliflower, cherry, chestnut, chickpea, chicory, chilleetc, cinnamon, clover, cocoa, coconut, coffee, cotton, cowpea, cranberry, cucumberetc, currant, date, eggplant, fig, flax, garlic, ginger, gooseberry, grape, grapefruitetc, greencorn, greenonion, groundnut, hazelnut, hemp, lemonlime, lentil, lettuce, maize, maizefor, mango, melonetc, mushroom, okra, onion, orange, papaya, pigeonpea, pimento, pineapple, plantain, pumpkinetc, quince, quinoa, rapeseed, raspberry, rice, rye, sorghum, sorghumfor, spinach, sugarcane, sunflower, sweetpotato, tangetc, taro, tomato, watermelon, yam	2015 - 2020	https://www.fsa.usda.gov/news-room/efoia/electronic-reading-room/frequently-requested-information/crop-acreage-data/index
Romania	0	27	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Russia	72	6	flax, rapeseed, soybean, sugarbeet, sunflower, wheat	2016 - 2020	https://rosstat.gov.ru/foIder/210/document/13226
Serbia	0	19	alfalfa, barley, broadbean, grape, greencorn, maize, oats, oilseednes, potato, pulsenes, rapeseed, rootnes, rye, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Slovenia	0	21	alfalfa, barley, grape, greencorn, hop, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
South Africa	9	13	alfalfa, barley, bean, groundnut, maize, maizefor, oats, rapeseed, sorghum, soybean, sugarcane, sunflower, wheat	2017	https://www.statssa.gov.za/?page_id=1854&PPN=Report-11-02-01&SCH=7902
South Korea	14	28	apple, apricot, barley, buckwheat, cabbage, chilleetc, cucumberetc, grape, groundnut, lettuce, maize, melonetc, peachetc, pear, persimmon, plum, potato, pumpkinetc, rice, sesame, soybean, spinach, strawberry, sweetpotato, tangetc, tomato, watermelon, wheat	2015 - 2020	https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1EB001&vw_cd=MT_ETITLE&list_id=K1_15&scrld=&language=en&seqNo=&lang_mode=en&obj_var_id=&itm_id=&conn_path=MT_ETITLE&path=%252Feng%252FstatisticsList%252FstatisticsListIndex.do
Spain	17	28	alfalfa, barley, broadbean, flax, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, olive, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, sorghum, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Switzerland	0	24	barley, broadbean, grape, greencorn, hemp, hop, linseed, lupin, maize, oats, oilseednes, pea, potato, pulsenes, rapeseed, rice, rootnes, rye, soybean, sugarbeet, sunflower, tobacco, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
Thailand	76	4	cassava, maize, pineapple, rice	Rice: 2019 Other: 2015 - 2020	http://statbbi.nso.go.th/staticreport/page/sector/en/11.aspx
U.K.	4	16	barley, broadbean, grape, greencorn, linseed, maize, oats, oilseednes, pea, potato, rapeseed, rootnes, rye, sugarbeet, triticale, wheat	2015 - 2020	https://ec.europa.eu/eurostat/web/agriculture/data/database
U.S.A.	50	108	alfalfa, almond, aniseetc, apple, apricot, artichoke, asparagus, avocado, banana, barley, bean, blueberry, buckwheat, cabbage, canaryseed, carrot, cassava, cauliflower, cherry, chestnut, chickpea, chicory, chilleetc, clover, cocoa, coconut, coffee, cotton, cowpea, cranberry, cucumberetc, currant, date, eggplant, fig, flax, garlic, ginger, gooseberry, grape, grapefruitetc, greencorn, greenonion, groundnut, hazelnut, hemp, hempseed, hop, kiwi, lemonlime, lettuce, maize, maizefor, mango,	2015 - 2020	https://www.fsa.usda.gov/news-room/efoia/electronic-reading-room/frequently-requested-information/crop-acreage-data/index

			melonetc, millet, mushroom, mustard, oats, okra, olive, onion, orange, papaya, peachetc, pear, peppermint, persimmon, pigeonpea, pimento, pineapple, pistachio, plantain, plum, popcorn, potato, pumpkinetc, quince, quinoa, rapeseed, raspberry, rice, rye, ryefor, safflower, sesame, sorghum, sorghumfor, sourcherry, soybean, spinach, strawberry, stringbean, sugarbeet, sugarcane, sunflower, sweetpotato, tangetc, taro, tea, tobacco, tomato, turnipfor, vetch, walnut, watermelon, wheat, yam		
Vietnam	63	13	banana, cashew, cassava, coffee, grape, grapefruitetc, maize, mango, pepper, rice, rubber, sweetpotato, tea	2015 - 2020	https://www.gso.gov.vn /en/agriculture-forestry-and-fishery/

Supplementary Figures

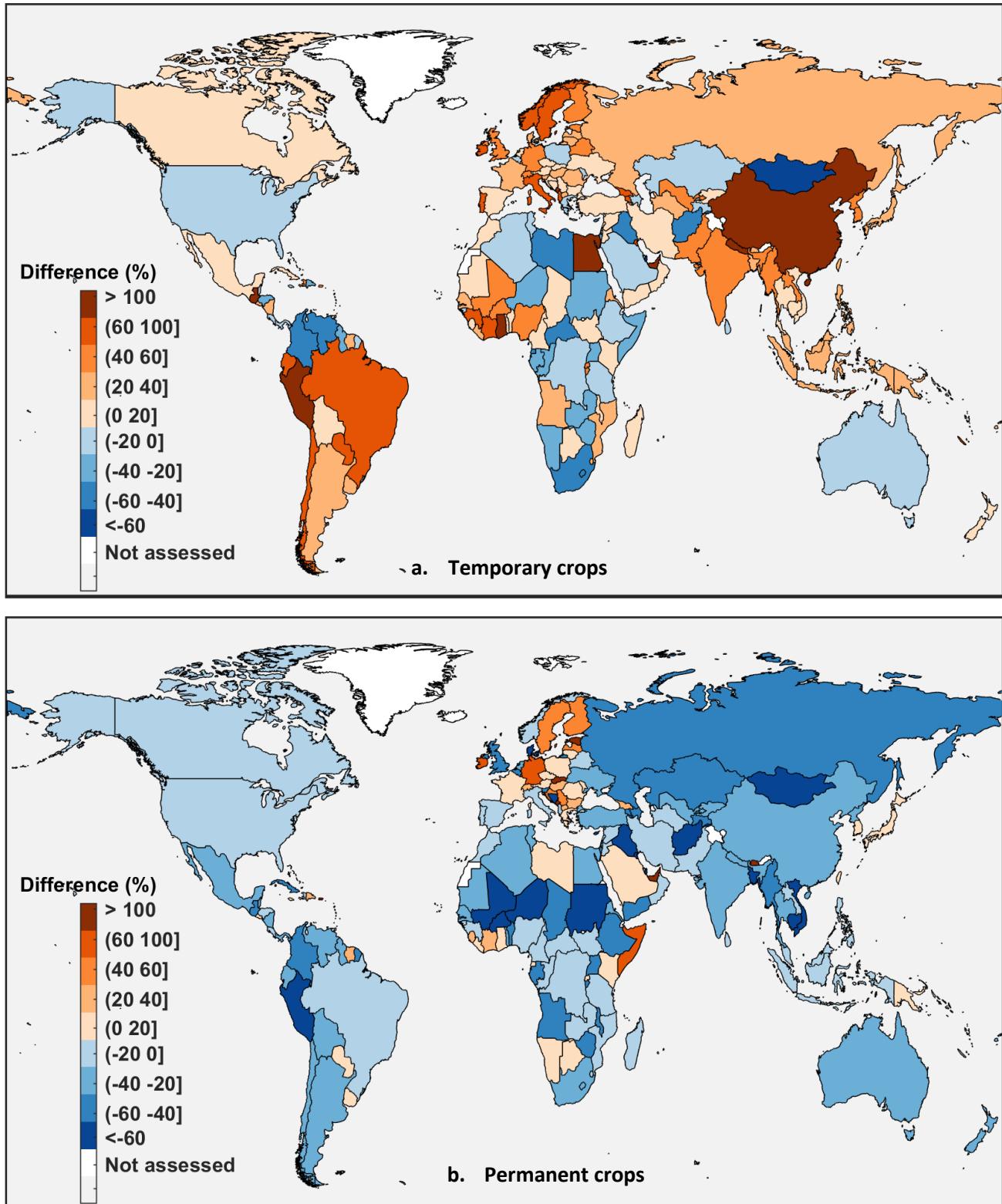


Figure 1. Comparison of land area used for cultivating (a) temporary and (b) permanent crops between CROPGRIDS and FAOSTAT for 2020.

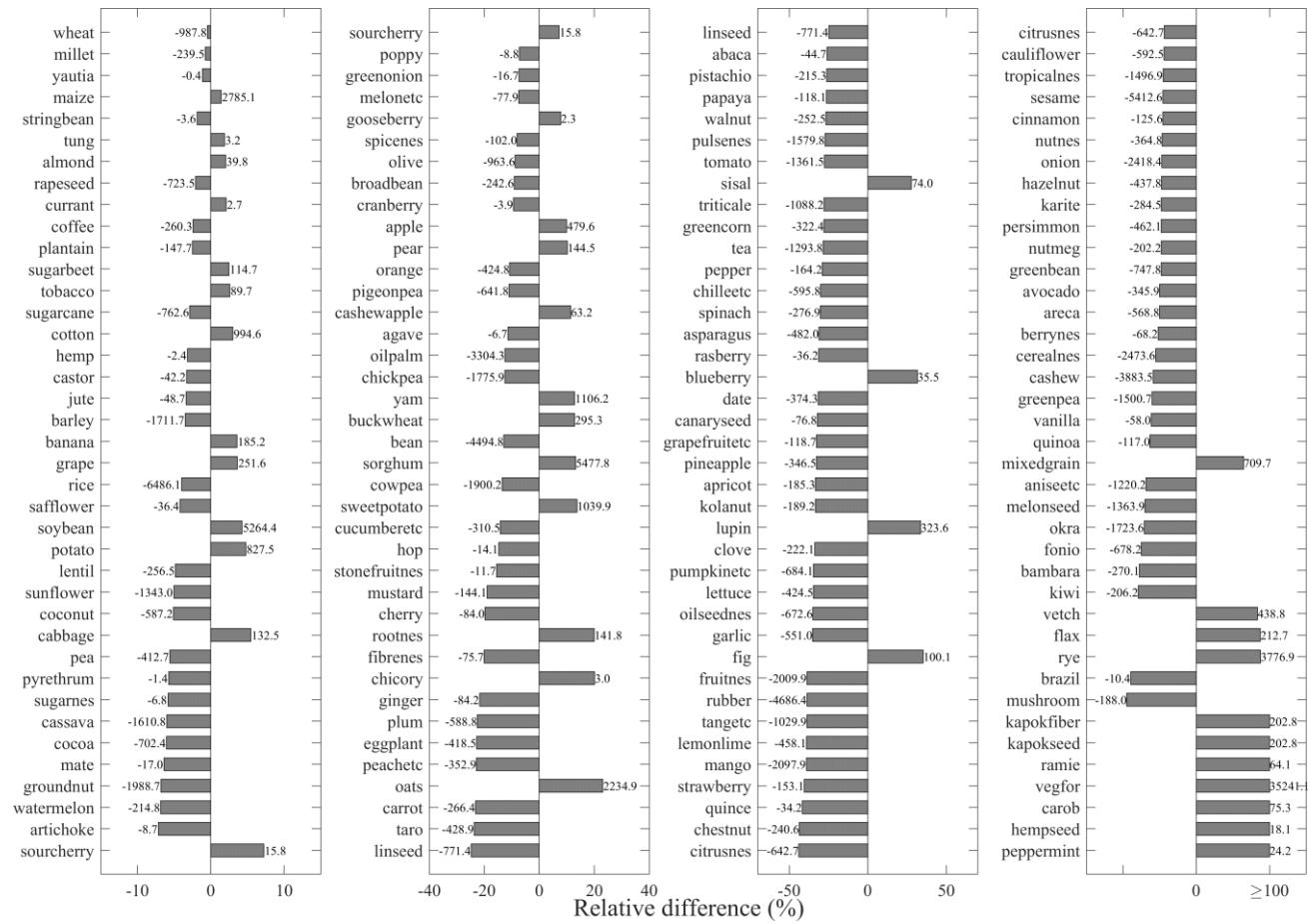


Figure 2. Relative differences of global harvested area between CROPGRIDS and FAOSTAT for 153 crops. Positive and negative bars and numbers signify that CROPGRIDS either overestimated or underestimated harvested area compared to FAOSTAT. The numbers next to the bars represent differences [1000×ha].

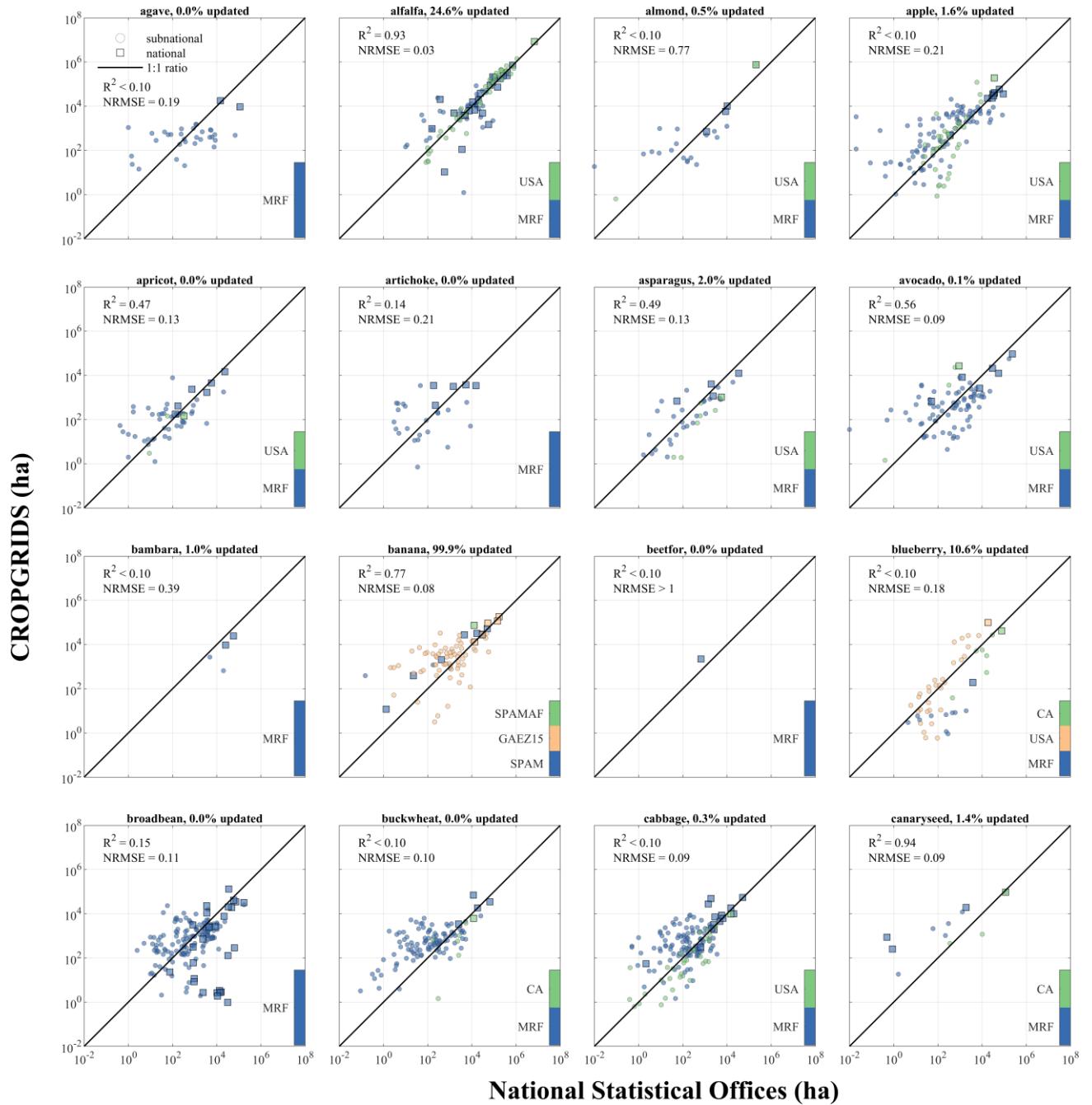
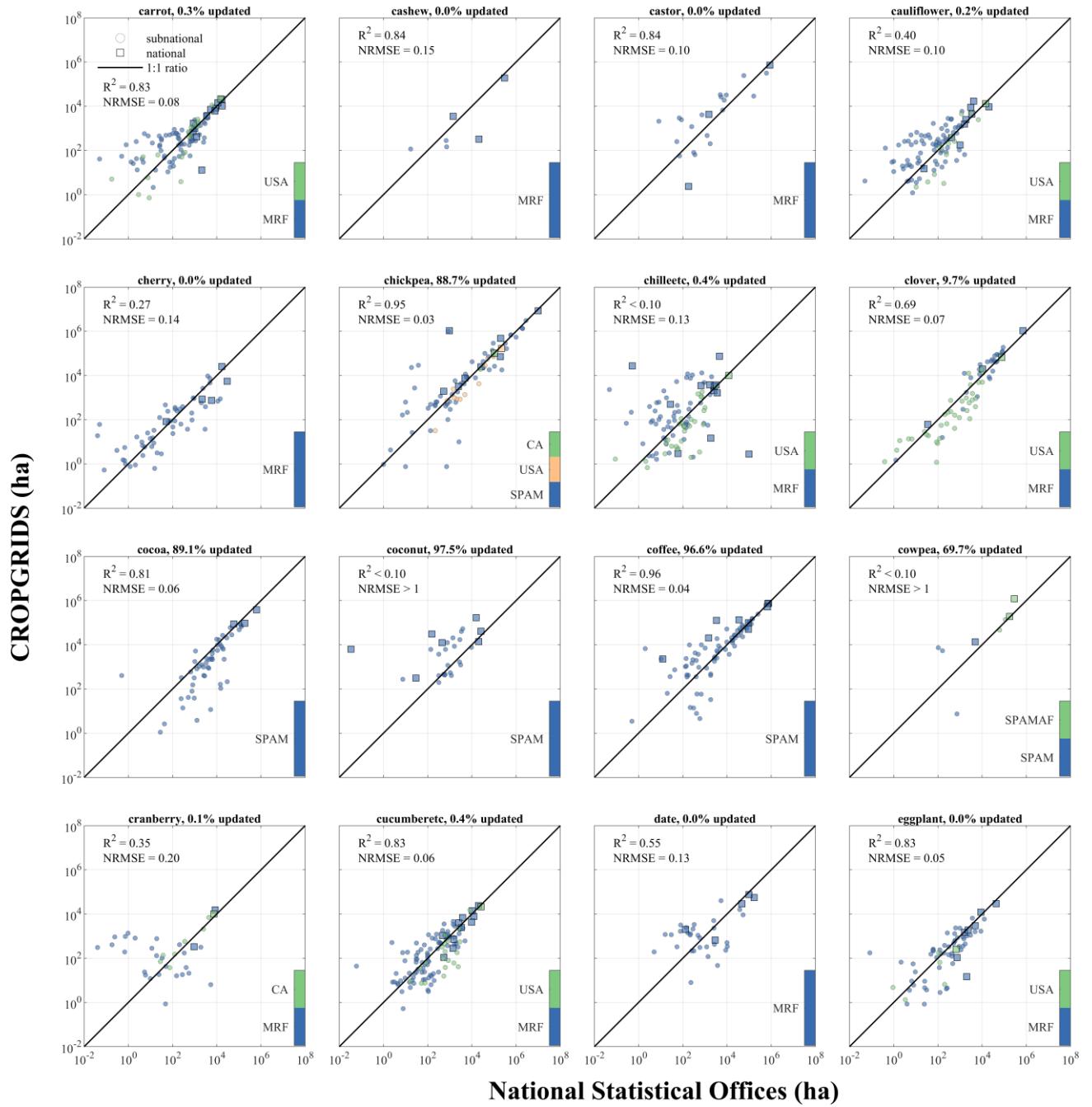
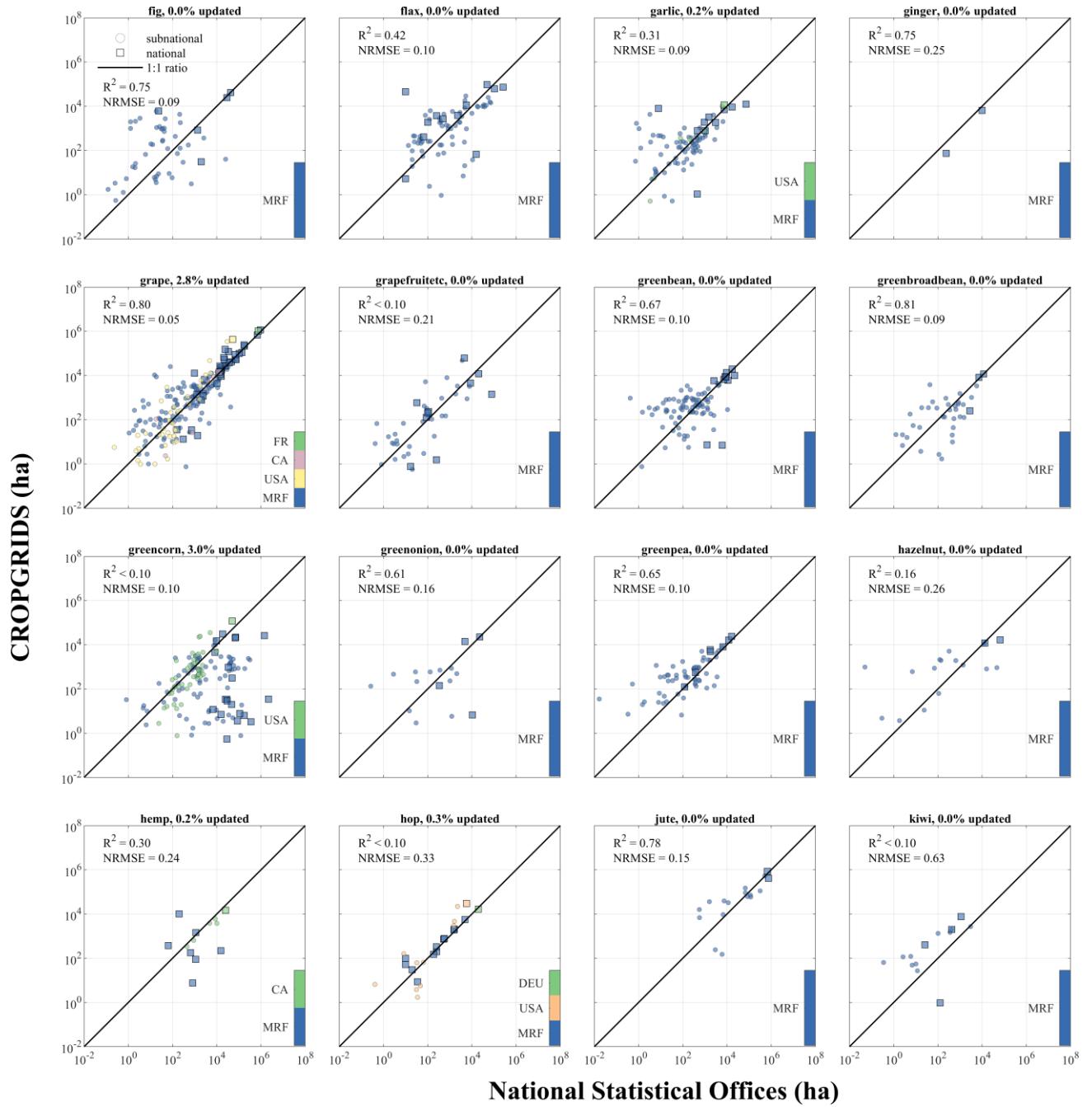
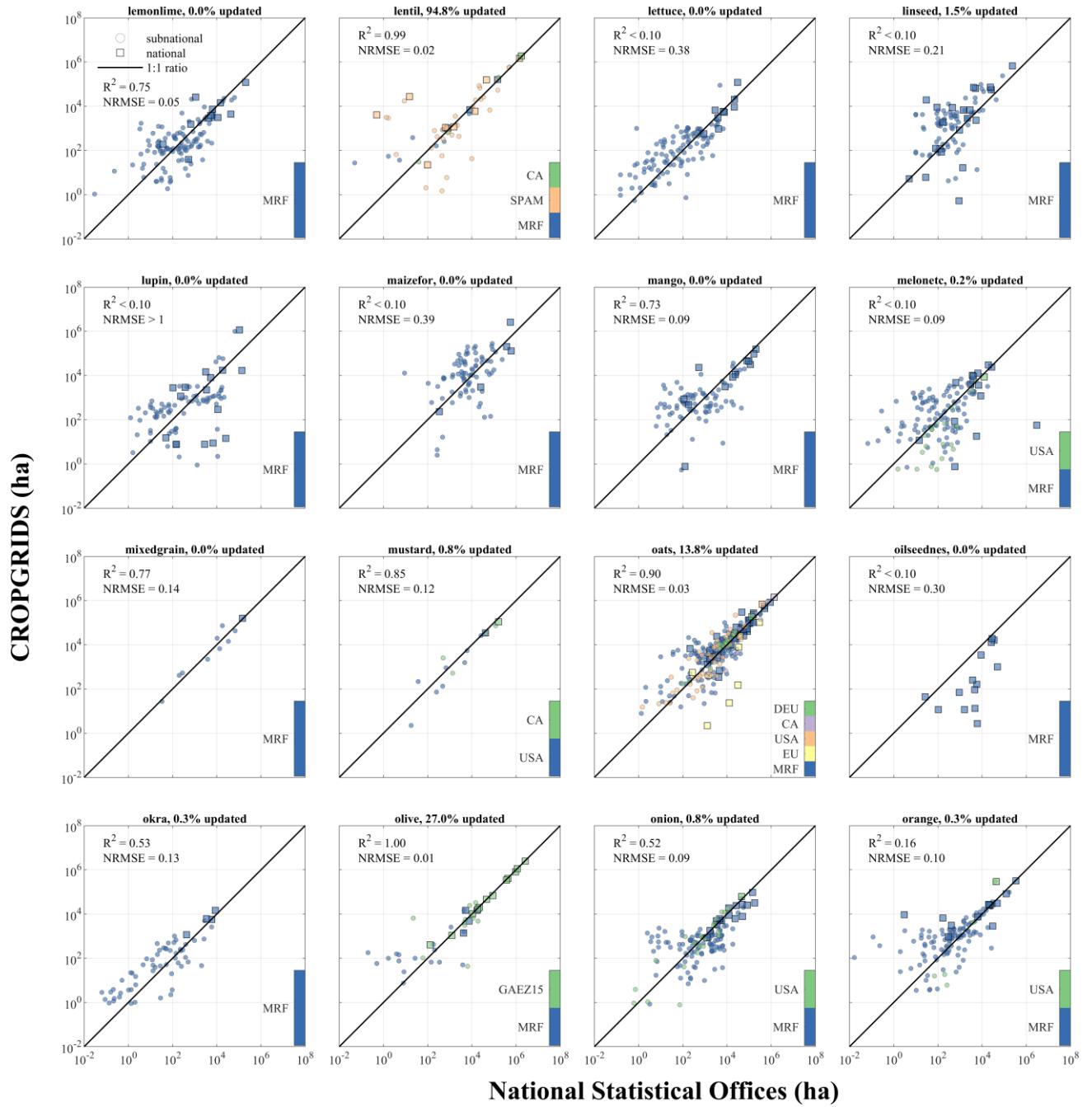


Figure 3. Validation of crop harvested areas at national and subnational levels between CROPGRIDS and National Statistical Offices. The % updated shows the percentage of grid cells for a specific crop in CROPGRIDS being updated with spatial data more recent than 2000. The colours of the markers refer to the georeferenced datasets selected to use in CROPGRIDS.

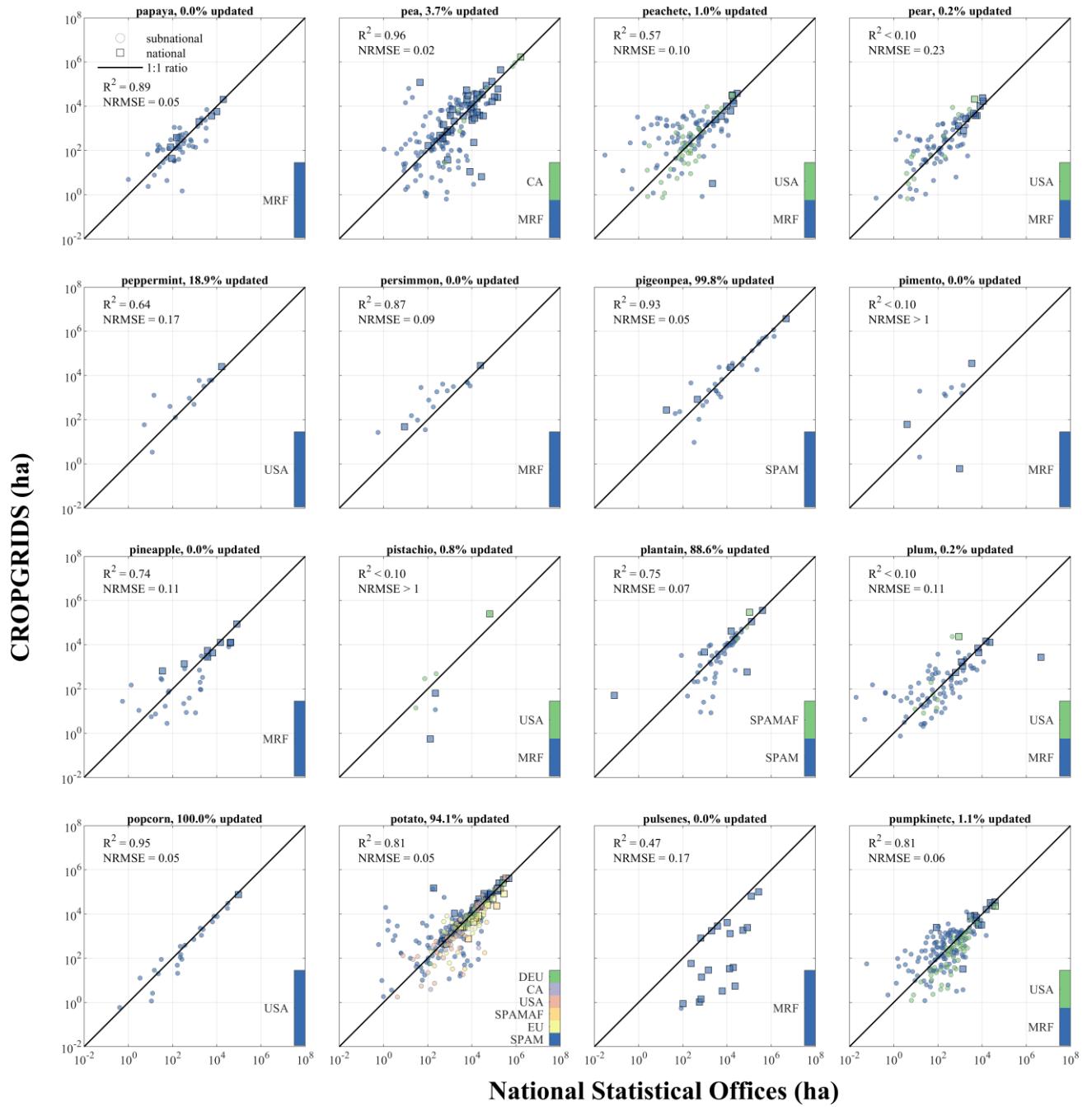


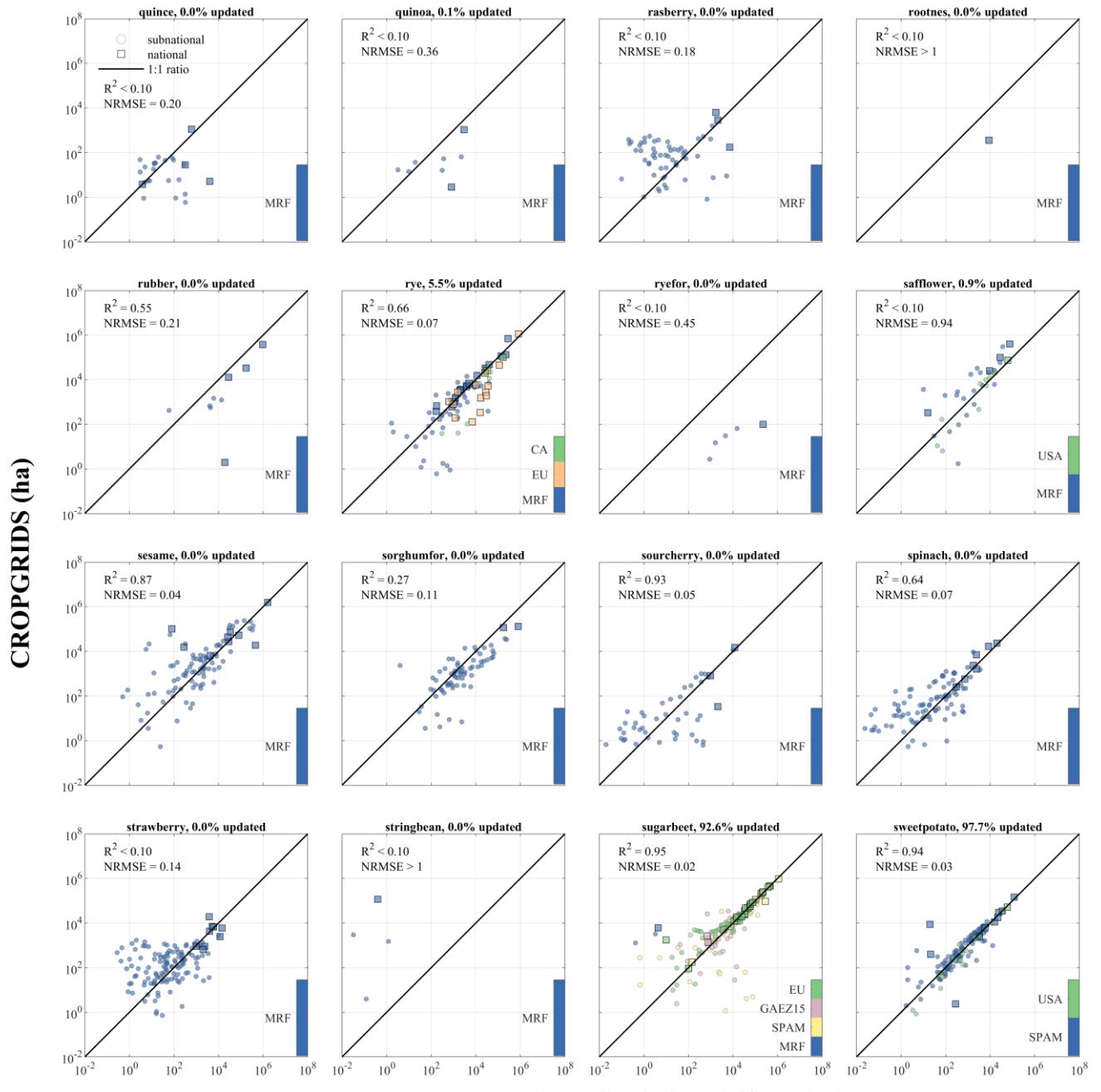


continued Figure 3. Validation of crop harvested areas at national and subnational levels between CROPGRIDS and National Statistical Offices. The % updated shows the percentage of grid cells for a specific crop in CROPGRIDS being updated with spatial data more recent than 2000. The colours of the markers refer to the georeferenced datasets selected to use in CROPGRIDS.

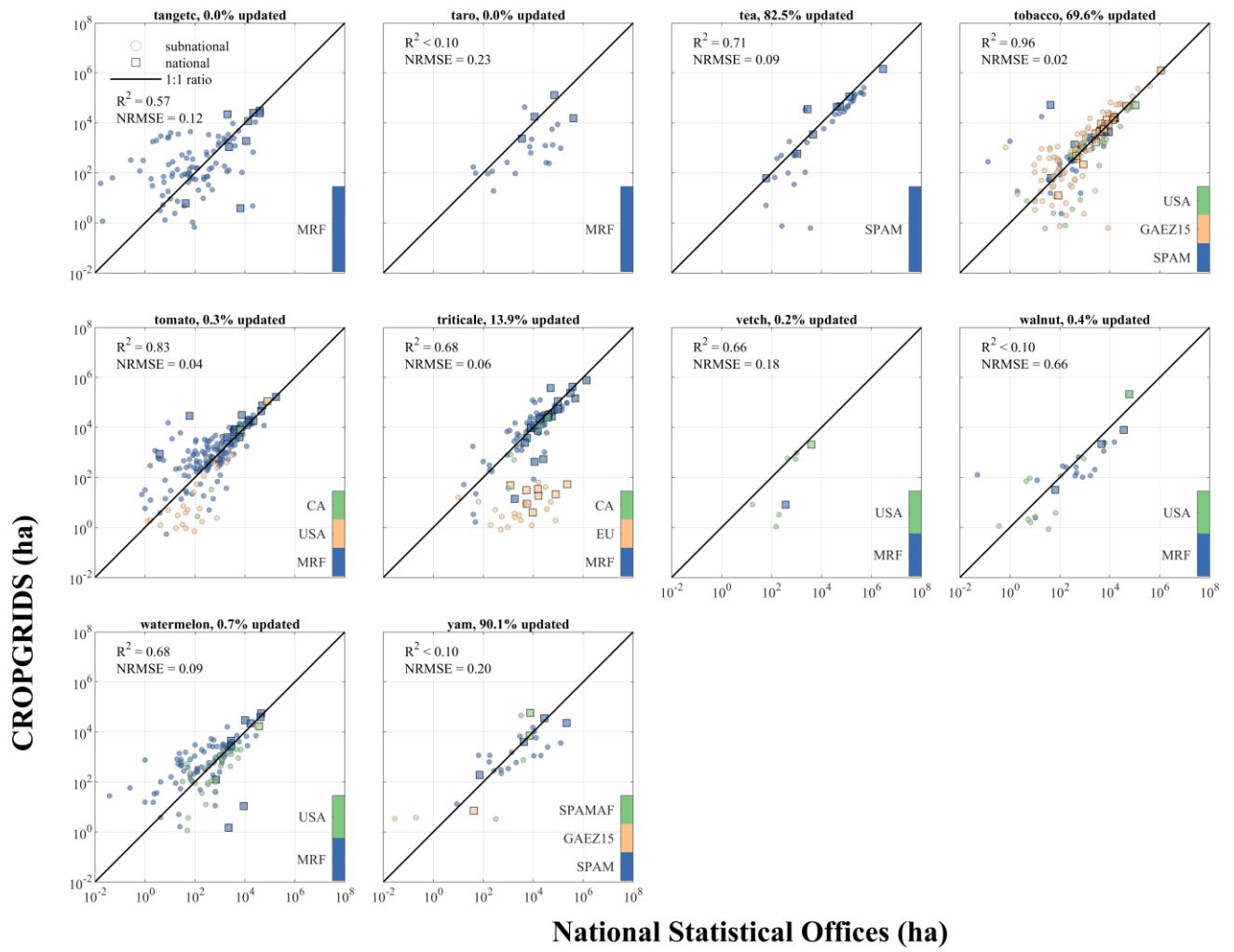


continued Figure 3. Validation of crop harvested areas at national and subnational levels between CROPGRIDS and National Statistical Offices. The % updated shows the percentage of grid cells for a specific crop in CROPGRIDS being updated with spatial data more recent than 2000. The colours of the markers refer to the georeferenced datasets selected to use in CROPGRIDS.





continued Figure 3. Validation of crop harvested areas at national and subnational levels between CROPGRIDS and National Statistical Offices. The % updated shows the percentage of grid cells for a specific crop in CROPGRIDS being updated with spatial data more recent than 2000. The colours of the markers refer to the georeferenced datasets selected to use in CROPGRIDS.



continued Figure 3. Validation of crop harvested areas at national and subnational levels between CROPGRIDS and National Statistical Offices. The % updated shows the percentage of grid cells for a specific crop in CROPGRIDS being updated with spatial data more recent than 2000. The colours of the markers refer to the georeferenced datasets selected to use in CROPGRIDS.

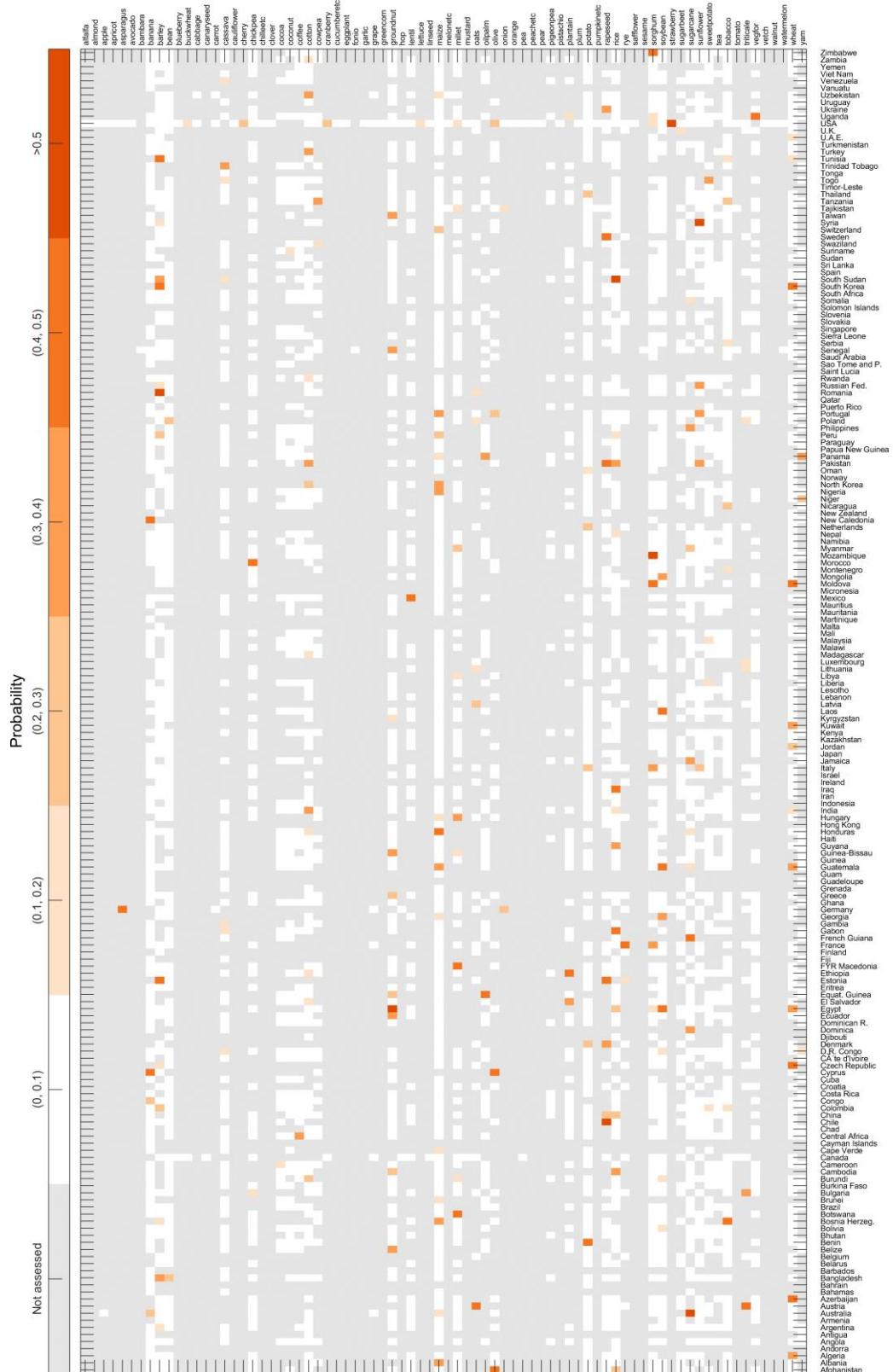


Figure 4. Uncertainty analysis of the multi-criteria ranking scheme. The mosaic represents the probability that randomizing the weights of the endogenous and exogenous characteristics returns the selection of a different best-fit dataset in countries and crops where more than one dataset is available.

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