

## Supplementary Material

**Table S1.** Algae production technologies.

Type of system	System name		Advantages	Disadvantages	Reference
Microalgae					
Open systems	Raceway ponds		<ul style="list-style-type: none"><li>- Inexpensive and easy to manufacture</li><li>- Low operational costs</li><li>- Low maintenance</li></ul>	<ul style="list-style-type: none"><li>- Easily contaminated</li><li>- Hard to control culture conditions</li><li>- Cost-inefficient harvesting for large culture volumes</li><li>- Inefficient light-harvesting</li><li>- Poor culture mixing</li></ul>	[1–3]
	Circular ponds				
	Unstirred ponds				
Closed systems	Tubular PBR	Airlift	<ul style="list-style-type: none"><li>- Low contamination risk</li><li>- Controlled culture conditions</li><li>- Efficient light-harvesting (except STR)</li><li>- Efficient culture mixture</li><li>- High density cultures</li><li>- Heterotrophic growth (STR)</li><li>- Higher areal and volumetric yields</li></ul>	<ul style="list-style-type: none"><li>- Expensive to manufacture</li><li>- Requires know-how in Photobioreactors (PBRs)</li><li>- Large scale made with plastic, usually PVC, decreasing the yields of the process (compared to glass PBRs) and accumulating more biofilm</li><li>- High maintenance and operation demand</li></ul>	[1,4–6]
		Bubble column			
		Horizontal tubular			
		Helical tubular			
	Stirred tank reactors (STR)				
	Flat panel PBR				
Macroalgae					
Wild harvesting	Manual		<ul style="list-style-type: none"><li>- Traditional economic activity</li><li>- Available biomass from beach casts</li><li>- Wider variety of species</li></ul> <b>Manual</b> <ul style="list-style-type: none"><li>- Inexpensive or no equipment required</li></ul> <b>Mechanized</b> <ul style="list-style-type: none"><li>- Larger production volume</li><li>- Higher incomes</li></ul>	<ul style="list-style-type: none"><li>- Dependent on seasonal and annual natural availability of wild stocks</li><li>- Seasonal variations in biochemical composition</li><li>- Regulated harvesting periods</li><li>- Pressure on wild stocks</li><li>- Production limited to geographic regions and species</li><li>- Epiphytic biomass</li></ul>	[7–9]

		Mechanized		<ul style="list-style-type: none"> <li>- Food security concerns (inorganic arsenic, iodine, heavy metals)</li> </ul> <b>Manual</b> <ul style="list-style-type: none"> <li>- Lower production volume</li> <li>- Difficult and limited access to biomass by shore, on foot, during low tides, or from vessels by diving</li> </ul> <b>Mechanized</b> <ul style="list-style-type: none"> <li>- Expensive equipment required</li> </ul>	
Aquaculture	Land-based	Hatchery	<ul style="list-style-type: none"> <li>- Potential for higher and predictable biomass yields</li> <li>- High quality rich nutritional content</li> <li>- Traceability, consistency and control of origin</li> <li>- Possibility of sustainable cultivation (e.g., IMTA)</li> <li>- Selective breeding and strain optimization</li> <li>- Tailored biomass (shape, texture and contents)</li> </ul> <b>Land-based</b> <ul style="list-style-type: none"> <li>- All-year-round cultivation and harvesting</li> <li>- Control of culture conditions</li> <li>- Tailor biomass to desired biochemical compositions</li> <li>- Possibility to cultivate targets species</li> <li>- Possibility to control pests and epiphytes</li> </ul> <b>Sea-based</b> <ul style="list-style-type: none"> <li>- Mass production</li> </ul>	<ul style="list-style-type: none"> <li>- Lacking knowledge on domestication and cultivation protocols</li> <li>- Some species dependent on manipulation of different life stages</li> <li>- Production limited to local and native strains</li> <li>- Environmental impact from genetic dispersion in open systems</li> <li>- Appearance of contaminations, pests and disease outbreaks</li> <li>- Requires large amount of labor (planting, daily maintenance, harvesting and post-harvest handling)</li> <li>- Climate change (rising seawater temperatures, increasing extreme weather conditions and more voracious grazing of predators)</li> <li>- low incomes for seaweed farmers</li> <li>- Pollution during operation (loss/discard of cultivation materials or generation of noise)</li> </ul> <b>Land-based</b> <ul style="list-style-type: none"> <li>- High price of space</li> <li>- High maintenance of tumble cultures and tanks</li> <li>- Vandalism</li> <li>- Legislation constraints</li> </ul> <b>Sea-based</b>	[7–9]
		Flasks, PBRs			
		Tanks			
		Raceways			
		Earthen ponds			
	Sea-based	Hatchery			
		Coastal waters			
		Offshore			

				<ul style="list-style-type: none"> <li>- Difficult to operate year-round given seasonality</li> <li>- Technical feasibility (exposure to strong waves, storms and lack of regulations)</li> <li>- Pollution in nearshore waters</li> <li>- Specialized equipment, vessels and hatcheries required to access site</li> <li>- Competition for near-shore areas from urban development, recreation, tourism, fishing, fish farming and/or other sea activities</li> </ul>	
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**Table S2.** List of algae species consumed in Europe. Edible algae consumption as food (F), food supplements (FS) and/or food additives (FA) within Europe, before and/or after 1997 (B97/A97). Algae are divided into: Cyanobacteria (CYN); Microalgae (MI) or Macroalgae (MA) of Chlorophyta (Green); Rhodophyta (Red); Ochrophyta (Brown) groups. Listed species and respective uses in bold are in the Novel Food Catalog (NFC) and/or have evidence of consumption before 1997.

Algae Group	Species	Name according to source (commercial and/or common names)	Region according to source	NFC	F	FS	FA	References – Before (B97) or after (A97) 1997
MA Red	<b>Agarophytes</b> <b>(<i>Ahnfeltiopsis</i> sp;</b> <b><i>Gelidium</i> sp;</b> <b><i>Gelidiella</i> sp;</b> <b><i>Gracilaria</i> sp;</b> <b><i>Pterocladia</i> sp;</b> <b><i>Pterocladia</i> sp.)</b>	FA: Agar (E406); Agar in sheets, Kanten (GB); Kanten (JP); Agar / Ágar / Agar-Agar, Francelha, Gelídio, Francelha-mansa (PT)	Europe, France, Portugal, Spain, UK and Ireland		✓	✓	✓	B97: [10–16] A97: [17–25]
MA Red	<i>Ahnfeltia plicata</i>	Black scour weed (GB)	UK		✓			B97: [26]
MA Red	<i>Alaria</i> spp.	Alaria (IE)	Ireland		✓			A97: [27]
MA Brown	<i>Alaria esculenta</i>	Essebarer Riementang (DE); Tang (DK, FO); Kombu alado, Wakame	Europe, Austria, Denmark, Faroes Islands,	✓	✓	✓		B97: [10,11,20,21,26,28–31]

		atlántico (ES); Alarie succulente, Wakamé, Wakamé atlantique or Wakamé irlandais (FR); Bladderlocks, Dabberlocks, Murlins, Wing kelp, Winged seaweed, Horsetail kelp, Tangle, Stringy kelp, Atlantic wakame, Henware, Honeyware (GB); Láir (IE); Marinkjarni (IS); Chigaiso (JP); Wakame do Atlântico (PT)	France, Germany, Greenland, Iceland, Norway, Portugal, Spain, Switzerland, UK and Ireland					A97: [27,32–43]
MA Brown	<i>Alaria pylaiei</i>	Suvdluistsit (GL); Kjpilasat (Inuktitut); Me'cgomei (RU)	Greenland, Iceland		✓			B97: [25,44]
MA Red	<i>Alsidium helminthochorton</i>	Corsican moss (GB)	Austria, France, Germany, Italy, Switzerland		✓	✓		A97: [37,38]
CYN	<i>Aphanizomenon flosaquae</i> var. <i>flosaquae</i>	Sinice (CZ); Blaigrüne Alge (DE); Alga klamath, Super Blue Green Bluegreen AFA (EN); Niitjas sinivetikas (ET); Aphamanizomenon-flos-aquae sinilevā (FI); Kékszöld alga (HU), Zilaļgu suga, Aphanizomenon flos-aquae (LV); Klamatska alga (SL)	Europe, Belgium, France, Italy	✓	✓	✓		B97: [20,29] A97: [36,38]
CYN	<i>Arthrospira fusiformis</i>		France			✓		B97: [20]
CYN	<i>Arthrospira major</i>	Spirulina major	Austria, Belgium, France, Germany, Italy, Switzerland			✓		B97: [20] A97: [38]
CYN	<i>Arthrospira platensis</i> ( <i>Spirulina platensis</i> )	Spirulina (CZ/DE/FI/PL/SL); Blue-green algae (EN), Espirulina (ES/PT); sini-rohevetikas (ET); σπιρουλίνα (EL); Spirulina alga (HU); Spirulīna, zilaļge (LV)	Europe, Austria, France, Germany, Spain, Switzerland	✓	✓	✓		B97: [20,29] A97:[36,38,45]
CYN	<i>Arthrospira</i> sp. ( <i>Spirulina</i> sp)	Spirulina (EN)	Europe, France, Portugal	✓	✓	✓		B97: [11,20,29,36]

MA Brown	<i>Ascophyllum nodosum</i> ( <i>Ascophyllum laevigata</i> ; <i>Fucus nodosus</i> )	Hnědá mořská řasa, kelpa (CZ); Knotentang, Sägetang (DE); Buletang (DK); pōisadru (ET), Rakkolevä, merilevä (FI), Ascophyllum kelp, Rockweed, Knotted wrack, Knobbed wrack, Yellow tang, Asco, Sea whistle, Egg wrack (GB); Miserarnat (GL); Észak-atlanti kövialga (HU); Asco (IE); Jūraszāle (LV); Workoliśc członowaty (PL); Knöltång (SE); Vrsta alge (SL); Alga castanha, Limo-de-nós (PT)	Europe, western Europe, Austria, Belgium, France, Greenland, Iceland, Italy, Portugal, Switzerland, UK and Ireland	✓	✓	✓		B97: [11,20,21,26,28,29] A97: [25,33,37,38,40,42,46–48]
MA Red	<i>Asparagopsis</i> sp.	Harpoon weed, Harpoon algae (GB); Cabelão (PT)	Portugal		✓	✓	✓	B97: [12] A97: [49]
MA Red	<i>Asparagopsis taxiformis</i> ( <i>Asparagopsis sanfordiana</i> )	Supreme Limu (GB); Limo kohu, Limu kohu, Limu lipaakai, Kohu lipeche, Kohu koko, Limu koko, Limu nipaakai, Kohu lipehe (HI); Kagikenori (JP)	Portugal (Madeira)		✓			A97: [25,49–51]
MA Brown	<i>Asperococcus fistulosus</i>	Thin sausage weed (GB)	UK		✓			A97: [26]
MI Green	<i>Auxenochlorella protothecoides</i>		Switzerland			✓		A97: [52]
MA Brown	<i>Bifurcaria bifurcata</i>	Meloalga (ES); Brown tuning fork weed, Brown forking weed (GB); Frosques, Frosque, Pauzinhos (PT)	Portugal, Spain, UK and Ireland		✓			A97: [17,25–27,37,53–55]
MA Red	<i>Bonnemaisonia asparagoides</i>	Bonnemaison's asparagus weed (GB)	UK		✓			B97: [26]
MA Green	<i>Bryopsis plumosa</i>	Mossy feather weed (GB)	UK		✓			B97: [26]
MA Red	<i>Calliblepharis jubata</i>	False eyelash weed (GB); Mauro (IT); Botelho gordo (PT)	Italy, Portugal, Sicily		✓			A97: [37,56–58]

MA Red	<i>Catenella caespitose</i>	Creeping chain weed (GB)	UK		✓			A97: [26]
MA Green	<i>Caulerpa lentillifera</i>	Uva de mar, Caviar verde (ES); Raisins de la mer (FR); Green caviar, sea grapes (GB); Kumejima, Umibudô, Umi-budô, Umibudou (JP); Ararosip, Ararusip, Arurusip, Lato, Lelato (PH)	France, Spain		✓			A97: [25,35,36,59]
MA Green	<i>Chaetomorpha linum</i>	Flax brick weed (GB)	UK		✓			B97: [26]
MI Green	<i>Chlorella pyrenoidosa</i>	Zelená sladkovodní řasa, Chlorela (CZ), Chlorella (DE); Viherlevä (FI); Klorella alga (HU), Hlorella (LV), Chlorella zwyczajna (PL); Klorella (SL); Clorela (PT)	Europe, Austria, France, Germany, Russia, Switzerland	✓	✓	✓		B97: [20,29,60,61] A97: [38]
MI Green	<i>Chlorella sp.</i>	Other species, whose taxonomy recently evolved, might have been placed on the market before 1997 under the designation “ <i>Chlorella sp.</i> ”: <i>Chlorella sorokiniana</i> , <i>Parachlorella kessleri</i> , <i>Auxenochlorella protothecoides</i> , <i>Auxenochlorella pyrenoidosa</i> or <i>Graesiella emersonii</i>	France, Portugal, Russia		✓	✓		B97: [11,20,62,63] A97: [36]
MI Green	<i>Chlorella vulgaris</i>	Sladkovodní řasa chlorela (CZ); Chlorella (DE); Viherlevä (FI); Zelená klorella alga (HU); Hlorella (LV); Klorella (SL); Chlorella zwyczajna (PL); Clorela (PT)	Europe, Austria, Belgium, France, Germany, Italy, Switzerland	✓	✓			B97: [20,29] A97: [38]
MA Red	<i>Chondracanthus acicularis</i> ( <i>Gigartina acicularis</i> ; <i>Gigartina falcata</i> )	Creephorn (GB); Mauru rizzu, Capidduzzu (IT); Cabeça de preto, Musgo da pedra, Meruge, Barranha, Musgos (PT)	Western Europe, UK and Ireland, Portugal, Sicily		✓			B97: [11,28] A97: [26,37,64]

MA Red	<i>Chondracanthus teedei</i> ( <i>Gigartina teedii</i> )	Mauru, Curaddina (IT); Cata-nori, Shikin-nori (JP); Musgos (PT)	Italy, Portugal, Sicily, Spain		✓			B97: [11,64] A97: [25,35,37,56,58,65]
MA Red	<i>Chondrus crispus</i>	FA: Carrageenan (E-407). Irishmoos, Irisches moos (DE); Carrageentang, Blomkålstang (DK); Liquen, Condrus, Musgo de Irlanda, Musgo de Mar, Carrapucho, Murgó, Pata de gallina, Raspa riza, Marfullín, Oclín (ES); Lichen, Pioca, Goemon blanc, Mousse d'Irlande (FR); Irish moss, Carrageen, Carrageen moss, Dorset weed, Dorset moss, Pearl moss, Sea moss, Sea pearl moss, Jelly moss, Rock moss, Gristle moss, Curly moss, Curly gristle moss, Carrageen, Carragean, Carrageenin (GB); Irish moss, carrageen moss, Carrageen (IE); Muschio irlandese (IT); Tsunomata, Hosokeno-mimi (JP); Musgo-gordo, Botelho, Botelha, Cuspelho, Musgo, Limo-folha, Folha-de-alface, Crespo, Musgo-irlandês, Folhinha, Musgo-do-mar, Musgo-da-Irlanda, Musgo-Irlandês (PT); Karragener (SW)	Europe, Austria, Belgium, Denmark, France, Germany, Iceland, Italy, Portugal, Spain, Switzerland, UK and Ireland	✓	✓	✓	✓	B97: [11,13,16,20,21,26,28–31,63,66–70] A97: [17,25,33,35,37–40,42,45,48,69,71–73]
MA Red	<i>Chondrus sp.</i>	Lichen (FR); Irish moss (GB); Argaço, Botelha, Botelho, Pelinho, Corninho, Cuspelho, Musgo, Limo-folha (PT)	France, Portugal, UK and Ireland		✓	✓	✓	B97: [11,12,16,28]
MA Red	<i>Chorda filum</i>	Meersaite (DE); Dead men's ropes, Mermaid's tresses, Cat gut, Sea lace, Mermaid's fishing line, Sea	Denmark, UK and Ireland		✓			B97: [26] A97: [27,33,48,72]

		laces, Mermaid's line, Bootlace weed (GB); Tsurumo (JP); Sudare (SE)					
MA Brown	<i>Chordaria flagelliformis</i>	Slimy whip weed (GB)	UK		✓		A97: [26]
MI Green	<i>Chrorella sorokiniana</i>		Netherlands			✓	A97: [74]
MA Green	<i>Cladophora rupestris</i>	Common green branched weed (GB)	UK		✓		A97: [26]
MA Brown	<i>Cladosiphon okamuranus</i>	Okinawa mozuku (JP)	Europe		✓		A97: [36]
MA Red	<i>Coccotylus truncatus</i>	Gestieltes Rotblatt (DE), kile-rødblåd (DK), Kilrødblåd (SE)	Baltic, Denmark, Estonia, Germany			✓	B97: [75] A97: [76]
MA Green	<i>Codium fragile</i>	Shui song (CH); Fleece, Sponge tang, Sponge seaweed, Sponge weed, Green sea-velvet, Green sponge fingers, Fragile green sponge fingers, Velvet horn (GB); Miru (JP); Chonggak (KR)	UK, Channel Islands, Denmark		✓		B97: [26] A97: [25,77]
MA Green	<i>Codium spp.</i>	Sui song (CH); Alga percebe, Carrasca brava, Candellabro, Codium, Fideo, Pelluca, Peluqueta, Percebe de pobre, Ramo do mar, Ramallo de mar (ES); Green sponge fingers (GB); Miru (JP); Chonggak (KR); Argão, Chorão do mar (PT)	Ireland, Portugal, Spain		✓		B97: [16] A97: [25,27,35,45,59,69,78]
MA Green	<i>Codium tomentosum</i>	Velvet fingers (GB); Limu aala-ula (HI); Soesoe lopek (IDN); Susu-lopek, Laur-laur (MYS); Miru (JP); Chorão, Chorão do mar, Pingarellhos, Percebes vegetarianos (PT)	Portugal, Spain,		✓		B97: [16] A97: [25,37,54,79,80]
MA Brown	<i>Colpomenia peregrine</i>	Oyster thief (GB)	UK		✓		A97: [26]



MA Red	<i>Corallina officinalis</i>	Common coral weed (GB)	Austria, Belgium, France, Germany, Italy, Switzerland, UK and Ireland		✓	✓		B97: [20] A97: [25,26,73]
MA Brown	<i>Cystoseira crinita</i>	Food additive used in the medical treatment of oncological patients	Bulgaria and Ukraine				✓	A97: [25]
MA Red	<i>Delesseria sanguinea</i>	Blod rød, Blodrød ribbeblad (DK), Sea beach (GB)	Denmark, UK and Ireland		✓			A97: [26,72]
MA Brown	<i>Dictyopteris polypodioides</i> ( <i>Dictyopteris membranacea</i> )	<i>Dictyopteris membranacea</i>	Western Europe		✓			B97: [28]
MA Brown	<i>Dictyota dichotoma</i>	Divided net weed (GB)	UK		✓			A97: [26]
MA Red	<i>Dilsea carnosa</i> ( <i>Iridaea edulis</i> )	Dulse, Red rags (GB)	UK and Ireland, France, Iceland, Spain		✓			B97: [20,30,66][31] A97: [25,69]
MA Red	<i>Dumontia</i> spp.		Ireland		✓			A97: [27]
MA Red	<i>Dumontia contorta</i>	Dumont's tubular weed, Discoid fork weed (GB); Ryûmonsô (JP)	UK and Ireland		✓			A97: [25–27,48]
MI Green	<i>Dunaliella salina</i>		Austria, Belgium, France, Germany, Italy, Switzerland			✓		B97: [20] A97: [38,81,82]
MA Brown	<i>Durvillea antarctica</i> ( <i>Durvillaea utilis</i> )	Cochayuyo, Collofe (CL); Cochayuyo (ES); Bull kelp (GB)	Europe, Austria, Belgium, France, Germany, Italy, Spain, Switzerland		✓	✓		B97: [20] A97: [35,36,38]
MA Brown	<i>Ecklonia cava</i>	<i>Ecklonia cava phlorotannins</i> on the Union List of Novel Foods. Arame, Noro-kajime (JP); Kompi (KR)	Europe			✓		A97: [20,83]
MA Brown	<i>Ecklonia</i> spp.	Arame (PT/JP)	Europe, Portugal		✓			A97: [37]

MA Brown	<i>Ectocarpus siliculosus</i>		UK		✓			B97: [26]
MA Brown	<i>Eisenia bicyclis</i> ( <i>Ecklonia bicyclis</i> )	Arame (CZ; DE; DK; ES; FI; PT; JP); Arame teneri alga (HU); Eisenia (PL), Vrsta alge (SL)	Europe, Belgium, France, Italy, Portugal, Spain	✓	✓	✓		B97: [11,20–22,29,38] A97: [19,29,35,38,68]
MA Green	<i>Enteromorpha</i> sp. ( <i>Ulva</i> spp.)	Hai tsai (CH); Meersalat (DE); Sosalat, Havsalat (DK); Berza, Cabello de mar, Enciam de mar, Follegada do mar, Itsas urraza, Lavacán, Lamilla, Luche, Luchi, Lechugueta, Lechuga de mar, Mantilla, Tafetán, Papelejo, Xebra (ES); L'oseille du mer, Laitue de mer, Salade de la mer (FR); Enteromorpha, Ulva, Anori, Green laver, Sea lettuce, Lettuce laver, Green laver, Sea Grass (GB); Glasán (IE); Aosa (JP); Alface do Mar, Alface-do-mar (PT); Havssallat (SE)	Europe, UK and Ireland, Denmark, France, Italy, Portugal, Spain	✓	✓			B97: [11,20,21,26,28,67] A97: [17,27,29,33– 36,43,45,49,69,71– 73,84,85]
MA Red	<i>Erythroglossum</i> <i>laciniatum</i> ( <i>Porphyra laciniata</i> )	Laver sloke, Laver, Laver slack, Red laver, Purple laver, Flat tongue weed, Laver bread, Slack (GB); Sleabhán, Sleadaí, Sleabhach, Casóg, Sleabhac dearg (Gaeilge) Sloke (IE); Hoshinori, Asakusa-nori, Asakusa nori (JP)	France, western Europe, UK and Ireland		✓	✓		B97: [20,21,30,31,63] A97: [25,48]
MA Red	<i>Eucheuma denticulatum</i> ( <i>Eucheuma spinosum</i> )	FA: Processed Eucheuma seaweed (E407a) Macassar, East Indian carrageen (GB); Canot-canot (IDN); Kirinsai, Ryukyu- tsunomata (JP)	Europe, Austria, Belgium, France, Germany, Italy, Switzerland			✓	✓	B97: [20,38] A97: [21,36,86]
MA Red	<i>Eucheuma horridum</i>		Austria, Belgium, France, Germany, Italy, Switzerland			✓		B97: [20,38]

MA Red	<i>Eucheuma</i> spp.	FA: Carrageenan (E407) and processed Eucheuma seaweed (E 407a) Gusô (PH)	Europe, France, Portugal		✓	✓	✓	B97: [11,20,25,30,31,63,68,87] A97: [36]
MA Brown	<i>Fucus ceranoides</i>	Estuary wrack (GB)	UK		✓			B97: [26]
MA Brown	<i>Fucus serratus</i>	Savtang (DK); Saw/Serrated/Toothed wrack (GB); Dúlaman, Múrach dhubh (IE); Sägtång (SE)	Europe, Austria, Belgium, Denmark, France, Germany, Italy, Portugal, Switzerland, UK and Ireland	✓	✓	✓		B97: [11,16,20,21,26,29,38] A97: [27,33,47,48,72]
MA Brown	<i>Fucus spiralis</i>	Spiral/Spiraled/Flat wrack, Jelly bags (GB); Tremoço do mar, Bagão, Bodelha, Esgalhota, Fava-do-mar (PT)	Europe, Austria, France, Germany, Portugal, Switzerland, UK and Ireland	✓	✓	✓		B97: [16,20,21,26,29,38,88–90] A97: [25,33,37,48,80,84]
MA Brown	<i>Fucus</i> spp.	FA: Alginic Acid (E400) Wracks (GB); Argaço, Erva-salema, Bodelha (PT)	Europe, Portugal, Spain, UK and Ireland		✓		✓	B97: [11,12,16] A97:
MA Brown	<i>Fucus vesiculosus</i>	Fucoidan extract from <i>Fucus vesiculosus</i> on the Union List of Novel Foods. Blasentang (DE); Blæretang (DK, FO, NO); Rakkolevä (FI); Fucus, Varech vésiculeux (FR); Red fucus, Dyers fucus, Bladderwrack, Swine-tang, Sea ware, Bladderwrack (GB); Fucus, Blaaswier, (NL); Argaço, Trambolho, Estalos, Esgalhota, Bagão, Limbo-bexiga; Fava do mar, Bodelha (PT) Blåstång (SE)	Europe, western Europe, Belgium, Denmark, France, Italy, Portugal, Spain, UK and Ireland	✓	✓	✓		B97: [11,16,20,21,28–31,70,91] A97: [25,33,37,38,42,48,71,72,79,80,88,92,93]
MA Red	<i>Furcellaria lumbricalis</i>	FA: Furcellaran (E408) Gaffeltang (DK); Danish agar; Black carrageen; clawed forkweed (GB)	Baltic, Denmark, Estonia, Germany, UK and Ireland		✓	✓	✓	B97: [75] A97: [26,72]

MA Red	<i>Furcellariaceae</i> spp.	FA: Carrageenan (E407)	Europe				✓	A97: [21]
MA Red	<b><i>Gelidiaceae</i> spp. / <i>Gelidium</i> spp.</b>	FA: Agar (E406); Agar/Ágar/Agar-Agar, Francelha, Gelídio, Francelha-mansa (PT)	Portugal, Spain		✓	✓	✓	B97: [10–16,89,90,94–98] A97: [18,19,21–25]
MA Red	<i>Gelidiella acerosa</i> ( <i>Gelidium rigidum</i> )	FA: Agar (E406) Agar/Ágar/Agar-Agar, Francelha, Gelídio, Francelha-mansa (PT)	Portugal		✓	✓	✓	B97: [10,11,13,15,31] A97: [18,19,25]
MA Red	<b><i>Gelidium amansii</i></b>	Shie hua ts'ai (CN); Shima-ten-gusa, Tengusa, Makusa, Genso, Oyakusa (JP); Umutkkasari (KOR)	Austria, Belgium, France, Germany, Italy, Switzerland			✓		B97: [20,38]
MA Red	<i>Gelidium corneum</i> ( <i>Gelidium sesquipedale</i> ; misapplied to <i>Pterocladia</i> )	Yang ts'ai (CH); Atlantic agar, Vegetable isinglass (GB); Tengusa, Tokorotengusa (JP); Agar, Agar-Agar, Gelídio, Limo, Cabelo de cão, Francelha, Guia, Limo encarnado, Limo fino, Limo preto, Pêlo, Febra ratanho, Sedas (PT)	Austria, Belgium, France, Germany, Italy, Portugal, Spain, Switzerland		✓	✓	✓	B97: [10,11,13–15,20,38] A97: [18,19,23–25]
MA Red	<b><i>Gelidium microdon</i></b>	Musgo, Cabelão (PT)	Portugal		✓		✓	B97: [10,11,13,15,88–90,94–98] A97: [18,19,25]
MA Red	<b><i>Gelidium spinosum</i> (<i>Gelidium latifolium</i>)</b>	Spiny straggle weed (GB)	Portugal, Spain, UK and Ireland		✓		✓	B97: [10,11,13–15,26]
MA Red	<b><i>Gigartina pistillata</i></b>	Pistillata, Algatinado (ES); Pestle weed (GB); Borracha, Botelho-borriço, Botelho-riço, Corninho, Corno-de-veado, Pinheirinho (PT)	Western Europe, Portugal, Spain		✓		✓	B97: [11,13,28,99] A97: [35,69]
MA Red	<b><i>Gigartinaceae</i> spp. / <i>Gigartina</i> spp.</b>	FA: Carrageenan (E407); liquen (ES); Borracha, Musgos, Botelho, Pelinho, Corninho (PT)	Europe, Portugal, Spain		✓	✓	✓	B97: [11,12,28,69] A97: [21,37]
MA Red	<i>Gracilaria bursa-pastoris</i> ( <i>Gracilaria compressa</i> )	Shepherd's purse wartweed (GB); Ogo, Limu manaua (HI); Ogo (JP)	Western Europe, England and Wales		✓			B97: [28,30,31] A97: [25]

MA Red	<i>Gracilaria corticata</i>		Europe		✓			A97: [25,36]
MA Red	<i>Gracilaria gracilis</i>	Slender wartweed (GB); Cabelo de velha, Carriola (PT)	Europe, Belgium, France, Italy, Portugal, UK and Ireland		✓	✓	✓	B97: [20,26,38] A97: [25,37,53,79,80,84,100,101]
MA Red	<i>Gracilaria multipartita</i>	Cleaved wartweed, <i>Gracilaria multipartite</i> (GB)	UK		✓			A97: [26]
MA Red	<i>Gracilariaceae</i> spp. / <i>Gracilaria</i> spp.	FA: Agar (E406). Gracilaria (DK); Ogonori (ES); Botelho, Cabelo-de-velha, Gracilária (PT)	Europe, Denmark, Portugal, Spain		✓	✓	✓	B97: [11,12,28,69,88,99] A97: [21,35,37,71,72,85]
MA Red	<i>Gracilariopsis longissima</i> ( <i>Gracilaria verrucosa</i> ; <i>Gracilaria confervoides</i> )	Hai mien san, Fen tsai, Hunsai, Hai tsai, Hoi tsoi (CN); Ogonori (ES); Thin dragon beard plant, Ceylon moss, Longest wartweed (GB); Ogo (HI); Gulaman, Guraman, Gulaman dagat, Caocaoyan (ID); Thack hoa, Rau câu, Ogo, Ogo nori (JP); Gracilaria, Cabelo de velha, Carriola (PT); Nuoc-mam, Rau-cau, Xoa xoa (VN)	NE Atlantic, Europe, Austria, UK and Ireland, Denmark, France, Portugal, Spain, Switzerland	✓	✓	✓	✓	B97: [11,20,21,28,29,38] A97: [7,26,35,37,71,72,102]
MI Green	<i>Graesiella emersonii</i> ( <i>Chlorella emersonii</i> )		Austria, France, Germany, Switzerland			✓		B97: [20] A97: [38]
MA Red	<i>Grateloupia proteus</i>	Mauru 'mpiriali", Mauru ciuffu longu, Mauru ciuffu curtu (IT)	Sicily (Catania)		✓			B97: [65] A97: [28,37,53,69,100,103–105]
MA Red	<i>Grateloupia</i> spp.	Devil's tongue weed (GB); Kata-nori, Mukade-nori, Okitsu-nori (JP); Jinuari (KR); Ratanho (PT)	Europe, Portugal		✓			B97: [28]

MA Red	<i>Grateloupia turuturu</i>	Devil's tongue weed (GB); Kata-Nori, Mukade-Nori (JP); Jinuari (KR); Ratanho (PT)	France, Portugal, Spain		✓			A97: [37,53,69,80,100,103–105]
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MI Green	<b><i>Haematococcus lacustris</i></b> <b>(<i>Haematococcus pluvialis</i>)</b>	Astaxanthin, <i>Haematococcus pluvialis</i> , <i>Astaxin</i> , Astaxanthin-rich oleoresin from <i>Haematococcus pluvialis</i> on the Union List of Novel Foods	Europe, Belgium, France, Germany, Italy, Sweden, Spain, UK			✓		B97: [20,106][38] A97: [93,107–109]
MA Brown	<i>Halidrys siliquosa</i>	Sea pea (GB)	UK		✓			A97: [26]
MA Red	<i>Heterosiphonia plumosa</i>	Siphoned feather weed (GB)	UK		✓			A97: [26]
MA Red	<i>Hildenbrandia rubra</i>	Hildenbrand's red weed (GB)	UK		✓			A97: [26]
MA Brown	<b><i>Himanthalia elongata</i></b>	Riementang (DE); cinta, correa, correola, Espaguete de mar, Judías de mar (ES); Haricots de mer, Spaghettis de mer (FR); Sea thong, Thongweed/Thong weed, Button weed, Sea haricots, Sea spaghetti, Sea bean, (GB); Irish Sea spaghetti, Ríseach, ruálach, Ruánach, Imleacán cloch, Raif (IR); Cintas, Cordas, Corriolas, Esparguete do mar (PT)	Europe, western Europe, Austria, Belgium, Denmark, France, Italy, Portugal, Spain, Switzerland, UK and Ireland	✓	✓			B97: [10,11,20,21,26,28,29] A97: [27,33– 35,37,38,40,42,43,45,48,69 ,72,110]
MA Red	<i>Hydropuntia edulis</i> ( <i>Gracilaria lichenoides</i> ; <i>Gracilaria taenioides</i> ; <i>Gracilaria edulis</i> )	Ceylon moss (GB); Jafna moss, Agar-agar, Doejoeng (Ceylon); Doejoeng, Djanggoet (ID)	Europe		✓			A97: [25,36]
MA Red	<i>Hypnea musciformis</i>	Su-wei-tung (CH); Alga con gancho (ES); Crozier weeds, Hooked red seaweed (GB); Maidenhair, Limu huna (HI); Lumt cevata, Lumi tabia, Lumi vakalolo (FJ); Wormroos (ID); Sem pasi (IN); Spaghetti turchi (IT)	Sicily		✓			A97: [25,65]
MA Red	<i>Hypneaceae</i> spp. / <i>Hypnea</i> spp.	FA: Carrageenan (E407)	Europe		✓		✓	A97: [21,36]
MA	<b><i>Iridae</i> spp.</b>	Carrageenan, Dulse (GB)	UK and Ireland, Portugal		✓		✓	B97: [11,66]

Red								
MI Green	<i>Jaagichlorella luteoviridis</i> ( <i>Chlorella luteoviridis</i> )	Zelená sladkovodní řasa chlorella (CZ); Chlorella luteoviridis, Chlorella pyrenoidosa, Chlorella (DE); Viherlevä (FI), Klorella alga (HU); Hlorella (LV); Chlorella zwyczajna (PL); Clorella (PT); Klorella (SL)	Europe, Austria, France, Germany, Switzerland	✓	✓			B97: [20,29] A97: [38]
MA Red	<i>Jania rubens</i>	Slender-beaded coral weed (GB)	UK		✓			A97: [26]
MA Red	<i>Kallymenia reniformis</i>	Beautiful kidney weed (GB); Tosaka-Nori (JP)	Portugal		✓			B97: [28]
MA Brown	<i>Laminaria digitata</i> ( <i>Laminaria palmata</i> )	Fingertang (DE); Fingertang (DK); Tangæe, Tarablað (FO); Kombu breton, Laminaria digitée, Laminaria flexible, Goémon de coupe, anguillier, tali, taly, Tali moan, Fouet de sorcier, Ouarle (FR); Oarweed, Kelp, Tangleweed, Sea tangle, Sea girdle, Sea ribbon, Red ware (GB); Leath learach, Irish kombu (IE), Gladgesteeld vingerwier (NL); Kombu bretão, kelp (PT)	Europe, western Europe, Austria, Belgium, Denmark, Faroe Islands, France, Germany, Italy, Norway, Portugal, Switzerland, UK and Ireland	✓	✓	✓		B97: [11,20,21,26,28–31,70]  A97: [18–20,27,32–34,38,40–42,47,71,72]
MA Brown	<i>Laminaria hyperborea</i> ( <i>Laminaria cloustonii</i> )	Haidai (CH); Argazo, Cachopo, Canouco, Cinchón Follada, Faixa, Hoja de mayo, Kombu bretón, Soga, Toco (ES); Tangleweed, Tangle, Strapwrack, Mirkle, Kelpie, Cuvie, Forest Kelp, Redware, Sea tangle, Cuvy, Sea rod, Mayweed, Slat mara (GB); Chicote, Folha, Folha-de-maio, Rabo-negro, Taborro-de-pé, Kombu (PT)	Austria, Belgium, Channel Islands, UK and Ireland, France, Germany, Iceland, Italy, Norway, Portugal, Spain, Switzerland		✓	✓		B97: [10,16,20,26,28,44,77] A97: [18,19,25,27,33,38,41,72]



MA Brown	<i>Laminaria ochroleuca</i>	Haidai (CH); Argazo, Cachopo, Canouco, Cinchón Follada, Faixa, Hoja de mayo, Kombu atlántico, Soga, Toco (ES); Golden kelp (GB); Argazo, Kombu Atlântico, Folha-de-carriola, Kombu bretão, Kelp (PT)	Europe, UK and Ireland, Portugal, Spain		✓			B97: [7,10,11,16,19,24,26,28,99] [11,26,28] A97: [18,19,25,45]
MA Brown	<i>Laminaria spp.</i>	FA: Alginic Acid (E400) Kombu (ES); Kombu, Kelp, (GB); Kombu (JP); Fitas, Kombu, Taborra, Taborrão, Golfo, Rabo-negro, Mekabu, Tororo kombu (PT)	Portugal, Spain		✓	✓	✓	B97: [10–12,16,28] A97: [18,19,21,33,35,49,69]
MA Red	<i>Laurencia spp.</i>	Pepper dulse (GB); Erva Malagueta (PT)	Portugal		✓			B97: [11,28,95–97,111–113]
MA Red	<i>Laurencia viridis</i>	Pepper dulse (GB); Erva Malagueta (PT)	Portugal		✓			B97: [88,89,95,96] A97: [25,37,80]
MA Brown	<i>Leathesia marina</i> ( <i>Leathesia difformis</i> )	Punctured ball weed (GB)	UK		✓			A97: [26]
CYN	<i>Limnospira indica</i> ( <i>Arthrospira indica</i> )		France			✓		B97: [20]
CYN	<i>Limnospira maxima</i> ( <i>Spirulina maxima</i> , <i>Arthrospira maxima</i> )		Austria, Belgium, France, Germany, Italy			✓		B97: [20,114] A97: [38]
MA Red	<i>Lomentaria articulata</i>	Bunny-eared bead-weed (GB)	UK and Ireland		✓			A97: [26,73]
MA Brown	<i>Macrocystis pyrifera</i>	Giant kelp, Sea ivy (GB)	Austria, Belgium, France, Germany, Italy, Switzerland			✓		B97: [20] A97: [38]
MA Red	<i>Mastocarpus papillatus</i> ( <i>Gigartina pappilata</i> )	Grapestone (GB)	Iceland		✓			B97: [31] A97: [25,37,88,96]

MA Red	<b><i>Mastocarpus</i> spp.</b>	Botelha, Falso musgo irlandês, Musgos, Alface-miúda, Corninho, Crespo, Cuspelho, Folhinha, Limo musgo, Limo ratinho (PT)	Portugal		✓	✓	✓	B97: [11]
MA Red	<b><i>Mastocarpus stellatus</i> (<i>Gigartina stellata</i>; <i>Gigartina mamilliosa</i>; <i>Gigartina mamitiosa</i>)</b>	Líquén, Musgo Estrellado (ES); Grape pip weed, False Irish moss, False carragheen (GB); Botelha, Falso musgo irlandês, Musgos, Alface-miúda, Corninho, Crespo, Cuspelho, Folhinha, Limo musgo, Limo ratinho (PT)	Austria, Belgium, France, Germany, Iceland, Portugal, Spain, Switzerland, UK and Ireland		✓	✓	✓	B97: [11,20,26,28,30,31,63,67,69] A97: [25,37,38,45,48,69,73,88]
MA Red	<i>Membranoptera alata</i>	Winged weed (GB)	UK		✓			A97: [26]
MA Red	<i>Meristotheca papulosa</i>	Rosy pudding plant (GB), Tosakanori, Keikansai (JP)	Spain		✓			A97: [25,59]
MI Brown	<b><i>Microchloropsis gaditana</i> (<i>Nannochloropsis gaditana</i>)</b>		Switzerland			✓		A97: [115]
MA Green	<i>Monostroma grevillei</i> ( <i>Enteromorpha grevillei</i> , <i>Ulva grevillei</i> )	Green laver (GB); Hotparae (KR); Strutsallat (SE)	Scotland		✓			A97: [25]
MA Green	<i>Monostroma grevillei</i> ( <i>Enteromorpha grevillei</i> , <i>Ulva grevillei</i> )	Green laver (GB); Hotparae (KR); Strutsallat (SE)	Scotland		✓			A97: [25]
MA Green	<b><i>Monostroma nitidum</i></b>	Green nori (GB); Aonori (JP)	Europe	✓	✓			B97: [21,29]
MI Brown	<i>Nannochloropsis oculata</i>		Austria, Germany, Switzerland			✓		A97: [38,116]

MA Red	<b><i>Nemalion elminthoides</i></b> ( <i>Nemalion helminthoides</i> )	Macarrón de mar (ES); Turkish spaghetti, Threadweed, Sea noodles (GB); Spaghetti turchi (IT); Umisomen, Tsukomo Nori, Umi-somen (JP); Esparguete-da-costa (PT)	UK and Ireland, Italy, Portugal, Sicily, Spain		✓			B97: [26,28,31,65] A97: [35,37,53,65,69,73,117]
MA Red	<b><i>Neoporphyra perforata</i></b> ( <i>Porphyra perforata</i> )	Chi Choy (CN); Red Laver, Common purple, Purple laver (GB)	Western Europe		✓			B97: [30,31]
MA Red	<b><i>Neopyropia leucosticta</i></b> ( <i>Porphyra leucosticta</i> , <i>Pyropia leucosticta</i> )	Cochayuyo (ES); Pale patch laver (GB); Limu lua'u Limu lipahee; Limu luan, Limu lua'u (HI); Erva patinha, Erva-do-calhau (PT);	Europe, Austria, UK and Ireland, France, Germany, Portugal (Azores), Switzerland		✓	✓		B97: [11,20,21,67] A97: [38,48,84,101,117,118]
MA Red	<b><i>Neopyropia tenera</i></b> ( <i>Porphyra tenera</i> ; <i>Pyropia tenera</i> )	Mořská řasa Nori (CZ); Nori (DE; DK; PT; JP); Nori-merilevä (FI); Asakusanori, szkarłatnica delikatna (PL); Vrsta alge (SL), purpurtång (SE)	Europe, Austria, Belgium, France, Germany, Italy, Portugal, Switzerland	✓	✓	✓		B97: [10,11,20,21,29] A97: [38]
MA Red	<b><i>Neopyropia yezoensis</i></b> ( <i>Pyropia yezoensis</i> , <i>Porphyra yezoensis</i> )	Zicai (CN); Open sea nori, Nori (GB); Susab-nori, Susabi-nori, Amanori, Nori (JP); Kim (KR); Nori (PT)	Europe, Austria, France, Germany, Portugal, Switzerland		✓	✓		B97: [10,11,20–22] A97: [18,19,22,25,38,92]
MA Brown	<i>Nereocystis luetkeana</i>	Sea whip, Seatron, Bull kelp, Bull-whip kelp (GB)	Europe		✓			A97: [36]
MI Brown	<i>Odontella aurita</i>	' <i>Odontella aurita</i> microalgae' on the Union List of Novel Foods	Europe, France			✓		A97: [20,93]
MA Red	<i>Odonthalia dentata</i>	Northern tooth weed (GB)	UK		✓			A97: [26]
MA Red	<b><i>Osmundea pinnatifida</i></b> ( <i>Laurencia pinnatifida</i> )	Laurencia, Pimienta de mar (ES); Pepper dulse, Truffle of the sea (GB); Limu maneoneo, Limu olipeepee, Limu lipee (HI); Erva malagueta, Erva salemira, Argacinho das lapas, Botelho preto, Pele -de-lapa (PT)	Western Europe, Channel Islands, UK (Scotland) and Ireland, France, Portugal, Spain, Norway		✓	✓		B97: [11,26,28,30,31,48,51,53,54,66,67,88,89,91,95–97,99,103,111–113,119,120] A97: [25,33,35,37,42,48,51,53,55]

								4,69,73,77,80,88,97,99,103,111,119–121]
MA Red	<b><i>Osmundea spp.</i></b>	Flat fern-weeds, Pepper dulse (GB)	UK		✓			B97: [26]
MA Red	<i>Osmundea truncata</i>		Denmark		✓			A97: [25]
MA Brown	<b><i>Padina pavonica</i></b>	Peacock's tail (GB)	Austria, France, Germany, Switzerland			✓		B97: [20] A97: [38]
MA Red	<b><i>Palmaria palmata</i> (<i>Rhodymenia palmata</i>)</b>	červená řasa (CZ); Rotalge (DE); Dulse, Dilisk, Søl (DK, FO, NO); Alga palmaria, Dulse (ES); Goémon à vaches, Tellesk, Tali ruz, Bezhin saout (FR); Dillisk, Dillesk, Crannogh, Water leaf, Sheep dulse, Red dulse, Sea lettuce flakes (GB); Vörös pálmaalga (HU); Dilisk, Dillisk, Duileasc, Creathnach (IE), Sarkanā aļģe (LV); Rodymenia palczasta (brunatnica) (PL); Botelho-comprido, Dulse (PT), Rödsallat (SE)	Western Europe, Europe, Austria, Belgium, Denmark, Faroe Islands, France, Germany, Iceland, Italy, Mediterranean, Norway, Portugal, Spain, Switzerland, UK and Ireland	✓	✓	✓		B97:[10,11,16,20,21,26–31,66,67,70] A97: [25,32–35,37–43,45,49,69,71,80,92,110]
MA Brown	<b><i>Pelvetia canaliculata</i></b>	Cow tang, Channel(led) wrack (GB); Caisíneach, Dulamán (IE); Botelho bravo (PT)	Europe, Channel Islands, UK and Ireland		✓	✓		B97: [26] A97: [25,27,33,36,37,42,48,73,77]
MA Brown	<i>Petalonia binghamiae</i>	Habonori (JP); Erva-lagosta (PT)	Portugal		✓			A97: [51,80,84]
MA Brown	<b><i>Petalonia fascia</i></b>	Broad leaf weed (GB)	UK		✓			B97: [26]
MA Red	<i>Phycodrys rubens</i>	Sea oak (GB)	UK					A97: [26]

MA Red	<i>Phymatolithon calcareum</i> ( <i>Lithothamnium calcareum</i> )	Mäerl (FR); Calcified seaweed (GB). OBS: EU law prohibits the addition of the alga <i>Lithothamnium calcareum</i> in the processing of organic foodstuffs such as rice- and soya-based organic drinks, for the purpose of their enrichment with calcium.	Europe, Austria, Belgium, France, Germany, Italy, Switzerland	✓	✓	✓		B97: [20,21,29,68] A97: [25,38,68,122–124]
MA Red	<i>Plocamium cartilagineum</i> ( <i>Plocamium coccineum</i> )	Kammtang (DE); Kamtang (DK); Cockscomb, Cock's comb, Sparsely branched cock's comb, Red comb weed (GB); Kamwier (NL); Botelho melado, Roseta (PT)	Portugal		✓			A97: [37]
MA Red	<i>Polyides rotundus</i>	Discoid fork weed (GB)	UK		✓			A97: [26]
MA Red	<i>Porphyra dioica</i>	Black laver (GB); Erva patinha, Nori do Atlântico, Nori (PT)	Austria, France, Germany, Portugal (continental, Madeira and Azores Islands), Switzerland		✓	✓		B97: [10,20,21,68] A97: [18,19,37,38,51,71,96,97,10,125–127]
MA Red	<i>Porphyra linearis</i>	Laver, Nori, Winter laver (GB); Sloke, Sleabhac (IE); Erva patinha, Erva-patinha nori do Atlântico, Nori (PT)	Ireland, Portugal, Scotland		✓			B97: [10] A97: [33,37,48,80,84,101]
MA Red	<i>Porphyra purpurea</i>	Chi choy (CN); Purple Laver (GB); Asakusa nori, Hoshinori (JP); Nori (PT)	Austria, Channel Islands, France, Germany, Portugal, Switzerland		✓	✓		B97: [10,20,21] A97: [37,38,77,80]
MA Red	<i>Porphyra</i> spp. ( <i>Porphyra</i> and <i>Pyropia</i> )	Zicai (CH); Alga Nori, Touca (ES); Laitude rouge, Nori (FR); Atlantic Nori, Laver, Nori, Slake (GB); sleabhac (IE); Nori (JP); Kim (KR); Erva Patinha, Folhuda, Nori, Nori do Atlântico (PT)	Europe, UK and Ireland, France, Portugal, Spain		✓	✓		B97: [10,26,28,88,89,128] A97: [27,33,34,37,43,45,48,69,85,129,130]
MA Red	<i>Porphyra umbilicalis</i>	Black butter, Karango, Purple Nori, Laverbread, Purple laver, Sea leaf,	Western Europe, Austria, Belgium, France,		✓	✓		B97: [10,20,21,28,30,31,68,70]

		Slake, Sloak, Sloke, Slacan, Tough Laver, Purple sea vegetable (GB); Sleabhac (IE); Nori (JP); Nori, Erva patinha, Erva-patinha, castanha, Nori do Atlântico (PT)	Germany, Italy, Portugal, Switzerland, Channel Islands, UK and Ireland (Eire)					A97: [18,19,33,37,38,42,48,51,71,77,80,96,97,110,125–127]
MA Brown	<i>Postelsia palmiformis</i>	Sea palm (GB)	Europe		✓			A97: [36]
MA Red	<i>Pterocladia capillacea</i>	Obakusa (JP); Kaeumu (KR); Agar, Musgo, Gadelhudo (PT)	Portugal		✓		✓	B97: [10,12,14,89,90,94–98,131] A97: [130]
MA Red	<i>Pterocladia</i> sp.	Musgo-dos-Açores, Agar, Agar agar (PT)	Portugal		✓	✓	✓	B97: [12,14,89,90,94–98,131]
MA Green	<i>Rhizoclonium riparium</i>	Rooting green thread weed (GB)	UK		✓			A97: [26]
MA Red	<i>Rhodymenia pseudopalmata</i>	Dulse, Rosy fan weed (GB)	Ireland		✓			A97: [25]
MA Brown	<i>Saccharina</i> spp.	Kombu de azúcar (ES)	Spain		✓			A97: [35]
MA Brown	<i>Saccharina japonica</i> ( <i>Laminaria japonica</i> )	Mořská kapusta, Mořská řasa (CZ); Cañoto, Sargazo azucarado, Kombu de azúcar, Kombu real, Laminaria azucarada, Soga, Toco (ES); Kelp, Meerkohl (DE); jaapani lehtadru (ET); kombu (HU); Laminārija (LV), listownica japońska (PL); Kombu, Kelp Japonês (PT); Vrsta alge, Laminaria (SL)	Europe, Austria, Belgium, France, Germany, Italy, Portugal, Switzerland	✓	✓	✓		B97: [11,20–22,28,29] A97: [11,18,19,22,37,38]

MA Brown	<i>Saccharina latissima</i> ( <i>Ulva latissima</i> ; <i>laminaria saccharina</i> )	Zuckertang (DE); Sukkertang (DK); Cañoto, Sargazo azucarado, Kombu de azúcar, Kombu real, Laminaria azucarada, Soga, Toco (ES); Breiðblöðkutur sukurtari (FO); Baudrier de neptune, Kombu royal, Laminaria sucrée, Tali friz (FR); Tangle, Sugar wrack, Sugar kelp, Sweet oarweed, Sea belt, Green laver, Kombu, Kombu royale, Poor man's weather glass (GB); Irish sweet kombu (IE); Suikerwier (NL); Kombu real, Rabeiro (PT); Skräppetare (SE)	Europe, western Europe, Austria, Belgium, Denmark, Faroe Islands, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Switzerland, UK and Ireland (Eire)	✓	✓	✓		B97: [11,20,26,28–31,70]  A97: [27,32–34,37,38,40–42,71,80,84]
MA Brown	<i>Saccharina longicruris</i> ( <i>Laminaria longicruris</i> )	Řasa (CZ); Baudrier de neptune, Kombu royal, Tali friz (FR); Laminária alga (HU); Istownica długa (PL); Vrstá alge, Laminaria (SL)	Europe, Austria, France, Germany, Switzerland	✓	✓	✓		B97: [29]  A97: [20,21,34,38]
MA Brown	<i>Saccorhiza polyschides</i>	Furbelows, Furbellows (GB); Caixeira, Carocha, Cintas, Golfe, Golfo, Limo-correia, Taborra, Taborrão, Rabo-negro, Argaço, Limo correia, Limo corriola, Mekabu (PT)	Cold Atlantic regions, Portugal, Spain, UK and Ireland		✓			B97: [10–12,16,26] A97: [25,69,80]
MA Brown	<i>Saccorhiza</i> sp.	Sacorriza, Golfo, Taborrão, Rabo Negro (PT)	Portugal		✓			B97: [12]
MA Brown	<i>Sargassum aquifolium</i> ( <i>Sargassum echinocarpum</i> , <i>Sargassum crassifolium</i> )	Limu kala, Binder's sargassum weed (GB); Limu honu, Holly limu, Kala-launui (HI)	Europe		✓			A97: [36]
MA Brown	<i>Sargassum fusiforme</i> ( <i>Hizikia fusiforme</i> )	Hiziki (CZ/DE/DK/PT); hijuki-merilevä (FI); Okamura alga (HU); Hizikia (JP); Hizikia fusiforme, Hijiki (LV); hizikia (PL); Vrstá alge (SL)	Europe, Austria, Belgium, France, Germany, Italy, Portugal, Spain, Switzerland	✓	✓	✓		B97: [10,11,22,28] A97: [18,19,29,35,38,92]

MA Brown	<i>Sargassum fusiforme</i> ( <i>Hizikia fusiforme</i> )	Hiziki (CZ/DE/DK); Hizikia (PL); Hijuki-merilevä (FI); Okamura alga (HU); Hizikia (JP); Hijiki (LV); Hiziki, Hijiki (PT); Vrsta alge (SL)	Europe, Austria, Belgium, France, Germany, Portugal, Switzerland	✓	✓	✓		B97: [11,20,21,28,29] A97: [18,19,25,37,38]
MA Brown	<i>Sargassum muticum</i>	Wireweed, Japanese weed, Japweed (GB)	Channel Islands, UK and Ireland		✓			B97: [11,26,77,100]
MA Brown	<i>Sargassum</i> spp.	Sargaço (PT)	Ireland, Portugal		✓			A97: [27,130]
MA Brown	<i>Sargassum vulgare</i>	Beerentang (DE); Sargasso (PT)	Europe, Portugal		✓			A97: [36,37]
MI Green	<i>Scenedesmus quadricauda</i>		Russia			✓		B97: [60,61]
MI Green	<i>Scenedesmus</i> sp.		Germany			✓		B97: [132]
MI Green	<i>Scenedesmus vacuolatus</i>		Austria, France, Germany, Switzerland			✓		B97: [20] A97: [38]
MI Brown	<i>Schizochytrium</i> sp.	Huile d'Algues, Algal oil ( <i>Schizochytrium</i> sp.), <i>Schizochytrium</i> sp. oil	Austria, France, Germany, Switzerland			✓		A97: [38,133]
MA Red	<i>Schizymenia dubyi</i>	Starry liver weed (GB)	Western Europe, Portugal		✓			B97: [28]
MA Brown	<i>Scytosiphon</i> spp.		Ireland		✓			A97: [27]
MA Brown	<i>Scytosiphon lomentaria</i>	Geschnürter schlauchtang (DE); Chipolata weed, Leather tub, Soda straws, Whip tube (GB), Kayamonori, Sugara, Mugiware-nori (JP); Korimae (KO); Korvsnöre (SE)	UK and Ireland, France		✓			B97: [26,67] A97: [25,73,118]
MA Red	<i>Solieriaceae</i> spp. / <i>Solieria</i> spp.	FA: Carrageenan (E407)	Europe				✓	A97: [21]



MA Green	<i>Spongomorpha aeruginosa</i>	Spongy weed (GB)	UK		✓			A97: [26]
MI Green	<i>Tetradismus obliquus</i> ( <i>Scenedesmus obliquus</i> )		Germany			✓		B97: [134,135]
MI Green	<i>Tetraselmis chui</i>	<i>Tetraselmis chui</i> : 'Dried microalgae <i>Tetraselmis chuii</i> ' or 'Dried microalgae <i>T. chuii</i> ' on the Union List of Novel Foods	Europe, France, Portugal, Spain		✓	✓		A97: [20,35,93,136]
MA Brown	<i>Treptacantha barbata</i> ( <i>Cystoseira barbata</i> )	Food additive in the medical treatment of oncological patients	Bulgaria and Ukraine				✓	A97: [25]
MI Brown	<i>Ulkenia</i> sp.	Algal Oil, 'oil from the micro-algae <i>Ulkenia</i> sp.' on the Union List of Novel Foods	Austria, France, Germany, Switzerland			✓		B97: [20] A97: [38,137]
MA Green	<i>Ulva intestinalis</i>	Tai tyau (CH); Darmtang (DE); Aingira belarra, Aonori verde, Cabello de mar, Limo, Verdello, Verdín, Romeu (ES); Atlantic spirulina, Gut weed, Gutweed, Grasskelp, Green nori, Hollow green nori, Hollow green weed, Tubular sea lettuce, Sea grass (GB); Ulve en tube, ao-nori, Cheveyx de la mer, Ulve em tubes (FR); Limu ele-ele (HI); Awo-nori, Aonoriko (JP); Parae (KR); Lumot (PH); Erva-patinha, Erva-patinha verde, Erva do calhau, Erva-do-calhau (PT)	Europe, UK and Ireland, France, Portugal, Spain		✓	✓		B97: [20,25,26,48,95,125,126,138,139] A97: [33,34,36,37,42,73,80,120]
MA Green	<i>Ulva lactuca</i>	Meersalat (DE); Søsalat, Havsalat (DK); Luche, Luchi (ES); Laitue de mer (FR); Chicory, Lettuce, Lettuce laver, Green Laver, Sea Grass, Sea lettuce, Spiral (GB); Irish Sea-	Europe, western Europe, UK and Ireland, Belgium, Denmark, France, Italy, Ireland, Norway	✓	✓	✓		B97: [20,21,26,28,30,31] A97: [29,38,40–42,48,72]

		Spirulina, Spirulina seaweed (IE); Alface-do-mar (PT); Havssallat (SE)						
MA Green	<i>Ulva linza</i>	Hai-cai (CN); Slender sea lettuce, Gutweed (GB); Usuba-awonori, Usaba-aonori (JP)	Scotland		✓			A97: [48]
MA Green	<i>Ulva rigida</i>	Lattuga marina, Lechuga de mar (ES); Greenlaver (GB); Alface do mar, Alface-do-mar (PT)	Europe, Mediterranean basin, Portugal, Scotland		✓			B97: [10,95,113,125,126,138] A97: [24,25,37,48,49,53,79,80,9 6,125,126,140]
MA Brown	<i>Undaria pinnatifida</i>	Fucoidan extract from seaweed <i>Undaria pinnatifida</i> in the Union List of Novel Foods. Hnědá řasa wakame (CZ); Golfo, Wakame (ES); Wakame (DE/DK/FI); lehtadru (Liigid perekonnast Undaria) (ET); Wakamé, Grande fougère de mer (FR); Japanese kelp (GB), tengeri mustár, makróalga (HU); Wakame, Mekabu (JP); undaria pierzastodzielna (PL); Alga wakame, Wakame, Mekabu (PT); Vrsta alge (SL)	Western Europe, Austria, UK and Ireland, Belgium, France, Germany, Italy, Portugal, Spain	✓	✓	✓		B97: [10,11,20,21,26,28,29] A97: [7,18,22,34,37,43,45,69,92, 93]
MA Brown	<i>Undaria undarioides</i>	Hirumi, Wakame (JP)	Europe		✓			A97: [25,36]
MA Red	<i>Vertebrata lanosa</i> ( <i>Polysiphonia lanosa</i> )	Truffle seaweed, Ocean truffle, Wrack siphon weed, Many-tubed gable weed (GB); Pompons des Asco, Craonach, Cúnach triosgar, Cluaisíní, Mileara, Millreacha, Olann dhearg (IE)	Ireland, Scotland, Norway		✓	✓		A97: [25,48,73,103]

**Table S3.** Projects funded through the Horizon 2020 Research and Innovation program, divided by country (major role).

Country	Number of Projects			Money acquired (€)	Areas of the projects							
	Macroalgae	Microalgae	Both		Food	Feed	Agriculture	Medicine and cosmetics	Bioremediations and Bioenergy	Technology	Ecology and Evolution	Others
Austria		1		3,839,377							1	
Belgium		1		187,572							1	
Denmark	2	4		4,491,282				1	1	1	3	
France	3	16		38,475,614	3	1	1	3		8	6	1
Finland		2		2,757,860							2	
Germany	3	7	1	10,442,477		1		2		1	7	
Greece		2	1	291,326	2			1		1		
Hungary		2		2,415,269			1			1		
Iceland	2	3		14,856,010	2			1		1		1
Ireland		2		11,129,821					2			
Israel		5		2,863,170		1		1	1	1		1
Italy		7		15,065,798	2		1	1		2		1
Malta		1		183,455							1	
Netherlands	1	5	1	9,401,739					1	4	2	
Norway	1	2	1	2,992,880						2	2	
Portugal	2	7		12,611,324					3	4	2	
Slovenia		1		50,000						1		
Spain	3	19	1	52,958,216	7	6	3	3	5	5	5	
Sweden		1		4,156,356							1	
Switzerland		1		2,602,483							1	
United Kingdom	2	10	1	29,007,597	1			1	3	3	5	
<b>Total</b>	<b>19</b>	<b>99</b>	<b>6</b>	<b>220,779,626</b>	<b>17</b>	<b>9</b>	<b>6</b>	<b>14</b>	<b>16</b>	<b>35</b>	<b>39</b>	<b>4</b>

**Source:** EU Open Data Portal. Available online: <https://data.europa.eu/en> (accessed on Apr 10, 2021).

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