



(51) International Patent Classification:

A23L 33/135 (2016.01) A61K 35/74 (2015.01)
A23L 33/10 (2016.01) A61K 35/741 (2015.01)
A23L 33/105 (2016.01) A61K 35/742 (2015.01)
A61K 35/66 (2015.01)

(21) International Application Number:

PCT/IL2024/050960

(22) International Filing Date:

26 September 2024 (26.09.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

307266 26 September 2023 (26.09.2023) IL

(71) Applicants: **YISSUR RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM LTD.** [IL/IL]; HI TECH PARK THE EDMOND J. SAFRA, CAMPUS GIVAT RAM, P.O.B. 39135, 9139002 JERUSALEM (IL). **OFEK - ESHKOLOT RESEARCH AND DEVELOPMENT LTD.** [IL/IL]; Brauda College of Engineering, 51 Snunit, 2161002 Carmiel (IL).

(72) Inventors: **SHOSEYOV, Oded**; 10 Bakeret Street, 6080410 Shoham (IL). **SCHWARTZ, Betty**; 6/2 Itzhak Ben-Ari Street, 7666707 Rehovot (IL). **IASUR-KRUH, Lilach**; P.O.B. 249, 3004200 Kibbutz Afek (IL). **PELES, Yuval**; c/o OFEK - ESHKOLOT RESEARCH AND DEVELOPMENT LTD., Brauda College of Engineering, 51

Snunit, 2161002 Carmiel (IL). **NAAMA, Alaa**; c/o OFEK - ESHKOLOT RESEARCH AND DEVELOPMENT LTD., Brauda College of Engineering, 51 Snunit, 2161002 Carmiel (IL). **KHURI, Sandra**; c/o OFEK - ESHKOLOT RESEARCH AND DEVELOPMENT LTD., Brauda College of Engineering, 51 Snunit, 2161002 Carmiel (IL). **BOUZ, Alya**; c/o OFEK - ESHKOLOT RESEARCH AND DEVELOPMENT LTD., Brauda College of Engineering, 51 Snunit, 2161002 Carmiel (IL).

(74) Agent: **KESTEN, Dov** et al.; GEYRA KESTEN FRYDMAN, 100 HaHashmonaim Street, P.O.Box 52630, 6713317 Tel Aviv (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ,

(54) Title: PROBIOTIC-ENRICHED FRESH PRODUCE

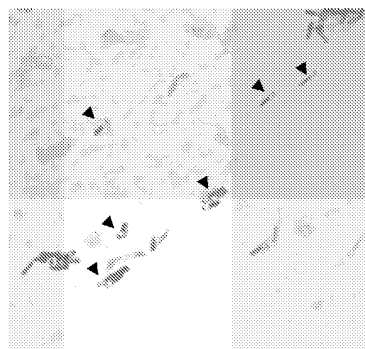
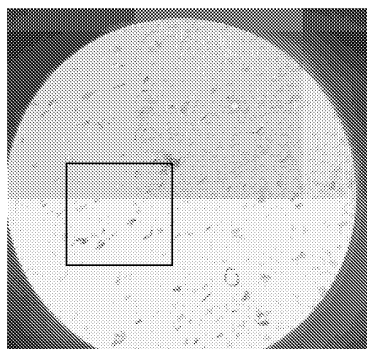


FIGURE 1

(57) Abstract: The present invention, provides, inter alia, a fresh produce including a spore-forming probiotic bacterial strain colonizing a tissue of the fresh produce, wherein at least 20% of CPU of the spore-forming bacterial strain colonizing the tissue of the fresh produce are in a spore form. Further provided are a kit including the fresh produce and a suitable container, as well as a method for preparing same.

[Continued on next page]



DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE,
SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*