



- (51) **International Patent Classification:**
A01G 27/00 (2006.01) *A01G 9/20* (2006.01)
- (21) **International Application Number:**
PCT/US2021/051534
- (22) **International Filing Date:**
22 September 2021 (22.09.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/082,389 23 September 2020 (23.09.2020) US
- (71) **Applicant:** ONEPOINTONE, INC. [US/US]; 2691 Grassland Way, Gilroy, CA 95020 (US).
- (72) **Inventors:** BERTRAM, Samuel Bernard Clifford; c/o OnePointOne, Inc., 2691 Grassland Way, Gilroy, CA 95020 (US). BERTRAM, John Russell; c/o OnePointOne, Inc., 2691 Grassland Way, Gilroy, CA 95020 (US). MORITZ, Alon; c/o OnePointOne, Inc., 2691 Grassland Way, Gilroy, CA 95020 (US). COLEMAN, John; c/o OnePointOne, Inc., 2691 Grassland Way, Gilroy, CA 95020 (US).
- (74) **Agent:** PANNO, Nicholas et al.; DLA Piper LLP (US), 11911 Freedom Drive, Suite 300, Reston, VA 20190 (US).
- (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, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, 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, GH, GM, KE, LR, LS, MW, MZ, NA, RW, 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, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, 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))

- (54) **Title:** VERTICAL FARMING SYSTEMS AND METHODS

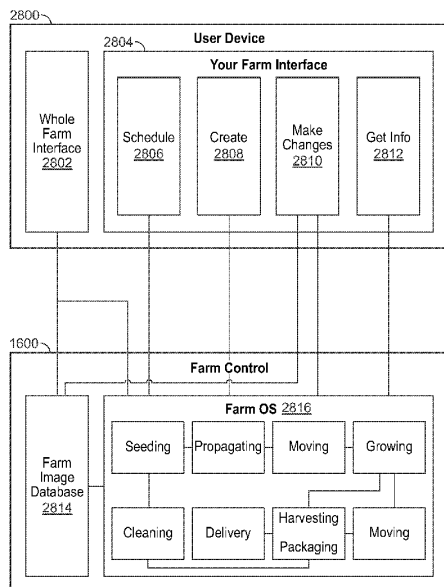


FIG 28

(57) **Abstract:** An automatic vertical farming system may include at least one growth area configured to support a plurality of vertical plant growth structures. The system may include at least one piece of farming equipment configured to plant crops within the at least one growth area, maintain the crops within the at least one growth area, harvest the crops within the at least one growth area, or a combination thereof. The system may include a control system including at least one processor in communication with at least one network, the at least one processor being configured to receive a configuration message from a remote computing device through the at least one network and automatically control the at least one piece of farming equipment according to content of the configuration message.