



New connection on: : 10-09-2020 : 13:56:18 - Last disconnection on: : 10-09-2020 : 13:56:06

V 4.0.0.44803(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201820)) (RPM D201820)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 13] track or conveyor

Results in EPODOC 890.679

[SS 14] plant or pot

Results in EPODOC 915.223

[SS 15] 13 and 14

Results in EPODOC 12.025

[SS 16] 15 and /IC (A01G and G01G)

Results in EPODOC 9

[SS 17] ..li



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PN - [PH12019501429](#) A1 20200615
PR - US201762519704P 20170614; US201815985119 20180521; WO2018US35037 20180530
AP - PH20191501429 20190620
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]
TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF **PLANT** IN A GROW POD
AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned within the cart.

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PN - [MX2019010593](#) A 20191015

PR - US201762519704P 20170614; US201815985119 20180521; WO2018US35037 20180530

AP - MX20190010593 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
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- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A **PLANT** IN A GROW POD.

AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned within the cart.

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PN - [CN110099562](#) A 20190806

PR - US201762519704P 20170614; US201815985119 20180521; WO2018US35037 20180530

AP - CN20188005326 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
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- A01G31/042 (EP)
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- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC

TI - Systems and methods for managing weight of **plant** in grow pod

AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned within the cart.

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PN - [AU2018282602](#) A1 20190613

PR - US201815985119 20180521; US201762519704P 20170614; WO2018US35037 20180530

AP - AU20180282602 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

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- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
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- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - Systems and methods for managing a weight of a **plant** in a grow pod

AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned within the cart.

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PN - [CA3044859](#) A1 20181220

PR - US201762519704P 20170614; US201815985119 20180521; WO2018US35037 20180530

AP - CA20183044859 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

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- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A **PLANT** IN A GROW POD

AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned

within the cart.

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PN - [US2018359939](#) A1 20181220

PR - US201815985119
20180521; US201762519704P
20170614

AP - US201815985119 20180521

DT - *; Rep

CCI - [A01G9/085](#) ; [A01G9/088](#) ;
[A01G9/247](#) ; [A01G31/042](#) ;
[G01G11/003](#) ; [G01G19/042](#) ;
[G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ;
[Y02P60/21](#)

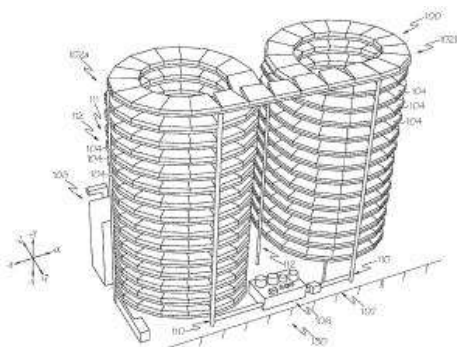
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
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PA - GROW SOLUTIONS TECH LLC
[US]

TI - SYSTEMS AND METHODS FOR
MANAGING A WEIGHT OF
A **PLANT** IN A GROW POD

AB - An assembly line grow pod
includes a seeding region, a
harvesting region, a **track** that
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region and the harvesting
region, a cart including a tray
for holding **plant** matter, and a
wheel coupled to the tray,
where the wheel is engaged
with the **track**, and a weight
sensor positioned on the cart
or the **track**, where the weight
sensor is positioned to detect
a weight of the **plant** matter
positioned within the cart.



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PN - [WO2018231516](#) A1 20181220

PR - US201762519704P 20170614; US201815985119 20180521

AP - WO2018US35037 20180530

DT - **

CT - [EP] ISR (A1)
[US5611172](#) A 19970318 [IAY] (DUGAN THOMAS F [US], et al)
[I] 1
* abstract *
* figures 1-3 *
* column 2, line 48 - column 6, line 4 *
[A] 9,12,18
[Y] 2-8,10,11,13-17,19,20;
[US2015089867](#) A1 20150402 [Y] (ABBOTT JACK [US], et al)
[Y] 2,3,6-8,10,11,13-17,19,20

* abstract *
 * figures 1-12 *
 * paragraphs [0030] - [0136] *;
[GB2329029](#) A 19990310 [A] (CHERRY STEPHEN [GB])
 [A] 1
 * abstract *
 * pages 2-5; figures 1-3 *;
[WO2013065043](#) A1 20130510 [Y] (PASKAL TECHNOLOGIES AGRICULTURE COOPERATIVE SOC LTD [IL])
 [Y] 4,5,13
 * abstract *
 * figures 1-11 *
 * claims 46-47 *
 * pages 8-27 *;
[US2012260569](#) A1 20121018 [A] (GOLGOTIU KRISTI A [US], et al)
 [A] 1
 * the whole document *;
[CN103493700](#) A 20140108 [A] (UNIV TONGJI)
 [A] 1
 * the whole document *;
[WO2012042084](#) A1 20120405 [A] (CONICET CONSEJO NAC DE INVESTIGACIONES CIENTIFICAS Y TECN [AR], et al)
 [A] 1
 * the whole document *

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

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 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
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PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A **PLANT** IN A GROW POD

AB - An assembly line grow pod includes a seeding region, a harvesting region, a **track** that extends between the seeding region and the harvesting region, a cart including a tray for holding **plant** matter, and a wheel coupled to the tray, where the wheel is engaged with the **track**, and a weight sensor positioned on the cart or the **track**, where the weight sensor is positioned to detect a weight of the **plant** matter positioned within the cart.

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PN - [CN103477956](#) A 20140101

PNFP - CN103477956B B 20150401

PR - CN201310437334 20130924

AP - CN201310437334 20130924

DT - I

CT - || STSE (A)
[CN201919444U](#) U 00000000 [A]
 [A] 1-110
 * 全文 *;
[CN102499030](#) A 00000000 [A]
 [A] 1-10
 * 全文 *;
[GB2474845](#) A 00000000 [A]
 [A] 1-10
 * 全文 *;

[CN1596071](#) A 00000000 [A]

[A] 1-10

* 全文 *;

[CN202697420U](#) U 00000000 [A]

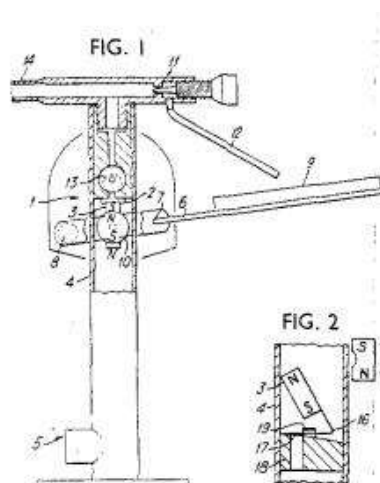
[A] 1-10

* 全文 *

- PA - (A B)
CN INST WATER RESOURCES & HYDR
- TI - (A B)
Automatic measurement and irrigation system and method for **pot** experiment
- AB - (A)
The invention relates to an automatic measurement and irrigation system and method for a **pot** experiment. The automatic measurement and irrigation system comprises a plurality of pots which are placed on a **pot** support; the plurality of pots are arranged along a straight line to form a row; row arrangement of a plurality of groups of pots forms a **pot** matrix; water injection pipes which are connected with respective water supply devices are inserted into the pots respectively; tracks for weight measuring trolleys to move on are arranged under rows and columns of the plurality of groups of pots; every **track** is provided with one of the weight measuring trolleys; every weight measuring trolley is provided with an operating mechanism and a lifting mechanism which is provided with a weight measuring platform. According to the automatic measurement and irrigation system and method for the **pot** experiment, the mode that weight measurement is performed on one row or one column of pots in the **pot** matrix through the weight measuring trolleys in turn is adopted and accordingly the number of weight measuring sensors is greatly reduced, the weight measuring accuracy is improved, and meanwhile the calibration maintenance cost of the weight measuring sensors is greatly reduced and the **pot** experiment can be accurate, the operation can be convenient, the experiment process can be easy to control, and the experiment cost can be controlled at a low level due to the weight measuring trolleys and a water injection device which is controlled by a computer.

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- PN - [GB1348371](#) A 19740313
- PR - GB19700005913 19710506
- AP - GBD1348371 19710506
- DT - *; Rep
- CCI - [A01G25/167](#) ; [F16K31/086](#)
- CI - A01G25/167 (EP)
F16K31/086 (EP)
- PA - RIDDIFORD F O G
- TI - DEVICES FOR AUTOMATICALLY
CONTROLLING THE WATERING
OF PLANTS
- AB - 1348371 Valves F O G
RIDDIFORD 6 May 1971 [6 Feb 1970] 5913/70 Addition to 1192424 Heading F2V [Also in Divisions A1 and G1] A valve controlling the automatic watering of seeds and plants has a closure member defined by one limb of a bent strip 16 co-operable with seat 18 in conduit 4 to control flow through passage 17, the other limb of the strip 16 carrying a first permanent magnet 3, co-operable with a second permanent magnet 10 carried by a lever 6 pivoted at 7. In one mode of use, lever 6 carries an absorbent pad 9 and is biased by counterweight 8 to position magnet 10 with its poles adjacent unlike poles of



magnet 3 so that the strip rotates counterclockwise to allow flow to the seeds &c. at 14. Water also flows at 12 on to pad 9 the weight of which is eventually sufficient to rotate lever 6 clockwise to close the valve by orientating magnet 10 with its poles adjacent like poles of magnet 3. When the pad is lightened by evaporation, the valve automatically reopens and the cycle repeats. Rotatable eccentric magnet 13 provides an adjustable bias. In a modification, lever 16 is replaced by a pivoted wire frame carrying a metallic or p. t.f.e. closure ball which, when unseated, engages a cam **track** to urge the two magnets together. In another modification, a lever equivalent to lever 16 engages a rotary ball closure member. In other modes of use, the pad 9, which may be corrugated or pleated, can be in contact with the growing medium or dip into the water in a **plant** container. The pad might also be replaced by a seed or **plant** tray or by an adjustable, indented, rimmed plate. The valve may alternatively be opened by magnetic repulsion and closed by magnetic attraction. Closure can also be effected by the water pressure or a mechanical bias. The pipe 12 can be omitted if the outlet spray is deflected to fall on to the pad or its replacement.

[SS 17] ..help combi



..HELP COMBI

..HELP opens Internet Explorer with [HELP on COMBI](#)

Select a database: ..fi epodoc



Database: EPODOC

[EPODOC: SS 17] ..combi WO2018231516

Start of the preparation ..COMBI

Input for COMBI - Large Family:
"WO2018231516"/PN in EPODOC



Combi - Large Family:"WO2018231516"/PN

[EPODOC: SS 28] ..hi 1-* from NPL





NPL	SS Status	Results	Query
1		0	{INPUT} ("WO2018231516"/AN) OR *M1/AN/PN/LNKX
2		0	{INPUT (+ FAMILY MEMBERS) - {STARTING SET}} 1 OR *M1/AN/PN/LNKX
3		0	{XP-DOCUMENTS CITED in the INPUT} *M3/LNKA
4		0	{XP-DOCUMENTS CITING the INPUT} *M1/LNKR

[SS 28] ..hi 17-* from EPODOC



EPODOC	SS Status	Results	Query
17		1	{INPUT} ("WO2018231516"/PN) OR *M1/PN OR *M2/AP
18		1	{INPUT TRANSFERRED from NPL} 17 OR *M1/PN OR *M2/AP
19		35	{STARTING SET (LARGE FAMILY MEMBERS)} 18 OR *M2/AP/PR
20		0	{... with CITED NPL} 19 AND (CTNP=YES OR EXNP=YES OR OCNP=YES OR OPNP=YES)
21		0	{... with CITED NPL (APPLICANT CITATIONS)} 19 AND RFNP=YES
22		11	{DOCUMENTS CITED DURING PROCEDURE} *M3/PN
23		0	{DOCUMENTS CITED BY THE APPLICANT} *M3/PN OR *M8/AP
24		0	{DOCUMENTS CITING the INPUT} *M4/PN OR *M5/AP OR *M7/AP
25		0	{DOCUMENTS CITING THE INPUT IN APPLICANT CITATIONS} *M1/RF OR *M2/RFAP
26		11	{CITED OR CITING DOC'S EXCLUDING INPUT + FAMILY MEMBERS} (OR 22, 23, 24, 25) NOT 19
27		46	{CITED OR CITING DOC'S INCLUDING INPUT + FAMILY MEMBERS} OR 19, 22, 23, 24, 25

COMBI completed successfully.

End of the preparation ..COMBI

Saved 46 documents in XFile COMBI_INTERNAL.

[EPODOC: SS 28] ..li



1/46	© EPODOC / EPO
PN	- JP2020522991 A 20200806
PR	- US201762519704P 20170614; US201762519701P 20170614; US201815991614 20180529; WO2018US35094 20180530
AP	- JP20190532040 20180530
DT	- I
CCI	- A01G9/088 ; A01G31/042 ; G01G11/003 ; G01G11/043 ; G01N21/251 ; G05B15/02
CCA	- G01N2021/1776 ; G01N2021/8416 ; G01N2021/8466 ; G05B2219/45003 ; Y02P60/21
CI	- A01D91/00 (US) - A01G9/088 (EP, US) - A01G31/042 (EP, US) - G01G11/003 (EP) - G01G11/043 (EP, US) - G01N5/02 (US) - G01N21/251 (EP) - G01N21/314 (US) - G05B15/02 (EP)
CA	- G01N2021/1776 (EP, US) - G01N2021/8416 (EP, US) - G01N2021/8466 (EP, US) - G05B2219/45003 (EP) - Y02P60/21 (EP)
2/46	© EPODOC / EPO
PN	- JP2020522988 A 20200806
PR	- US201762519704P 20170614; US201815985119 20180521; WO2018US35037 20180530
AP	- JP20190529531 20180530
DT	- I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
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- Y02A40/25 (EP)
- Y02P60/21 (EP)

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PN - [MX2019011104](#) A 20191202
PR - **US201762519701P** 20170614; **US201762519704P** 20170614; **US201815991614** 20180529; **WO2018US35094** 20180530
AP - **MX20190011104** 20180530
DT - I
CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)
CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)
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- G05B2219/45003 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]
TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD.
AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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PN - [PH12019501521](#) A1 20200713
PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529; **WO2018US35094** 20180530
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- G01G11/043 (EP, US)

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- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)
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- AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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- PN - [PH12019501429](#) A1 20200615
- PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530
- AP - **PH20191501429** 20190620
- DT - I
- CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
- CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
- CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
- CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
- PA - GROW SOLUTIONS TECH LLC [US]
- TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF PLANT IN A GROW POD
- AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

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- PN - [BR112019016926](#) A2 20200414
- PR - **WO2018US35037** 20180530; **US201762519704P** 20170614; **US201815985119** 20180521
- AP - **BR20191116926** 20180530
- DT - I
- CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
- CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
- CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)

- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [BR112019017518](#) A2 20200331
PR - **WO2018US35094** 20180530; **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529
AP - **BR20191117518** 20180530
DT - I
CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)
CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)
CI - A01D91/00 (US)
- A01G9/088 (EP, US)
- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)
CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [ECSP19040974](#) A 20190630
PR - **US201762519704P** 20170614; **US201815985119** 20180521
AP - **EC2020DI1940974** 20190607
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [KR20200018379](#) A 20200219
PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530
AP - **KR20197017155** 20180530
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)

CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [KR20200018382](#) A 20200219

PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529; **WO2018US35094** 20180530

AP - **KR20197019397** 20180530

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [ECSP19052566](#) A 20190731

PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529

AP - **EC2020DI1952566** 20190723

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)

- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [ZA201903409](#) B 20200226
PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530
AP - **ZA20190003409** 20190529
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]
TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD

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PN - [MX2019010593](#) A 20191015
PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530
AP - **MX20190010593** 20180530
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]
TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD.
AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

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PN - [CL2019002064](#) A1 20191220
PR - **US201815991614** 20180529; **US201762519701P** 20170614; **US201762519704P** 20170614
AP - **CL20190002064** 20190723
DT - I
CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [CL2019001546](#) A1 20191104

PR - **US201815985119** 20180521; **US201762519704P** 20170614

AP - **CL20190001546** 20190606

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)

CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [CA3061347](#) A1 20181220

PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529; **WO2018US35094** 20180530

AP - **CA20183061347** 20180530

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)

- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD

AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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PN - [PE20191334](#) A1 20190925

PR - **US201762519701P** 20170614; **US201762519704P** 20170614; **US201815991614** 20180529

AP - **PE2019001722** 20180530

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
- A01G9/088 (EP, US)
- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [AR112299](#) A1 20191016

PR - **US201762519704P** 20170614

AP - **AR2018P101665** 20180614

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

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PN - [AR112249](#) A1 20191009

PR - **US201762519701P** 20170614

AP - **AR2018P101648** 20180614

DT - I
CCA - [Y02P60/21](#)
CA - Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [CN110167337](#) A 20190823
PR - **US201762519701P** 20170614; **US201762519704P** 20170614; **US201815991614** 20180529; **WO2018US35094** 20180530
AP - **CN20188005947** 20180530
DT - I
CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)
CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)
CI - A01D91/00 (US)
- A01G9/088 (EP, US)
- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
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- G05B15/02 (EP)
CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC
TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD
AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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PN - [PE20190943](#) A1 20190704
PR - **US201762519704P** 20170614; **US201815985119** 20180521
AP - **PE2019001237** 20180530
DT - I
CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
PA - GROW SOLUTIONS TECH LLC [US]

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PN - [CN110099562](#) A 20190806

PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530

AP - **CN20188005326** 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)

CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC

TI - Systems and methods for managing weight of plant in grow pod

AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

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PN - [CO2019008085](#) A2 20190731

PR - **WO2018US35094** 20180530; **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529

AP - **CO20190008085** 20190725

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)
 - Y02P60/21 (EP)

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PN - [AU2018282607](#) A1 20190627

PR - **US201762519701P** 20170614; **US201815991614** 20180529; **US201762519704P** 20170614; **WO2018US35094** 20180530

AP - **AU20180282607** 20180530

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)

- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)
- CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)
- PA - GROW SOLUTIONS TECH LLC [US]
- TI - Systems and methods for determining harvest timing for plant matter within a grow pod
- AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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- PN - [CO2019005968](#) A2 20190619
- PR - **WO2018US35037** 20180530; **US201762519704P** 20170614; **US201815985119** 20180521
- AP - **CO20190005968** 20190607
- DT - I
- CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
- CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
- CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)
- CA - G01F23/20 (EP)
- Y02A40/25 (EP)
- Y02P60/21 (EP)
- PA - GROW SOLUTIONS TECH LLC [US]

26/46 © EPODOC / EPO

- PN - [AU2018282602](#) A1 20190613
- PR - **US201815985119** 20180521; **US201762519704P** 20170614; **WO2018US35037** 20180530
- AP - **AU20180282602** 20180530
- DT - I
- CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
- CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
- CI - A01G9/085 (EP, US)
- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)

CA - G01G19/52 (EP)
 - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - Systems and methods for managing a weight of a plant in a grow pod

AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

27/46 © EPODOC / EPO

PN - [CA3044859](#) A1 20181220

PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530

AP - **CA20183044859** 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)

CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD

AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

28/46 © EPODOC / EPO

PN - [TW201904393](#) A 20190201

PR - **US201762519704P** 20170614; **US201815985119** 20180521

AP - **TW20180119757** 20180608

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)

CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

- TI - Systems and methods for managing a weight of a plant in a grow pod
- AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

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- PN - [TW201904409](#) A 20190201
- PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529
- AP - **TW20180119776** 20180608

DT - I

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

- CI - A01D91/00 (US)
- A01G9/088 (EP, US)
- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)

- CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - Systems and methods for determining harvest timing for plant matter within a grow pod

- AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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- PN - [US2018359975](#) A1 20181220
- PR - **US201815991614** 20180529; **US201762519704P** 20170614; **US201762519701P** 20170614

AP - **US201815991614** 20180529

DT - *, Rep

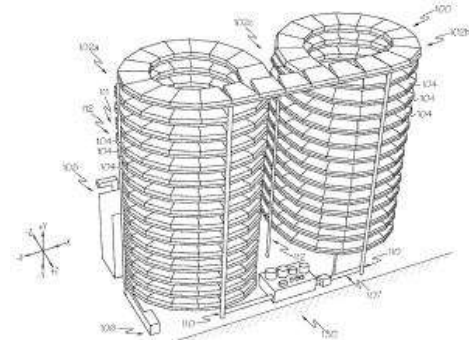
CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

- CI - A01D91/00 (US)
- A01G9/088 (EP, US)
- A01G31/042 (EP, US)
- G01G11/003 (EP)
- G01G11/043 (EP, US)
- G01N5/02 (US)
- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)

- CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)

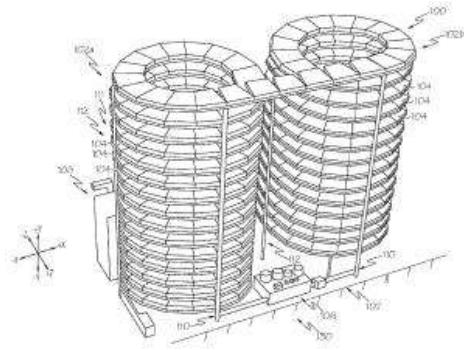
PA - GROW SOLUTIONS TECH LLC [US]



- TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD
- AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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- PN - [US2018359939](#) A1 20181220
- PR - [US201815985119](#) 20180521; [US201762519704P](#) 20170614
- AP - [US201815985119](#) 20180521
- DT - *; Rep
- CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
- CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
- CI - [A01G9/085](#) (EP, US)
[A01G9/088](#) (EP, US)
[A01G9/247](#) (EP, US)
[A01G31/042](#) (EP)
[G01G11/003](#) (EP)
[G01G11/043](#) (US)
[G01G19/042](#) (EP)
[G01G19/393](#) (EP)
[G01G19/415](#) (US)
[G01G19/42](#) (US)
[G01G19/52](#) (EP)
- CA - [G01F23/20](#) (EP)
[Y02A40/25](#) (EP)
[Y02P60/21](#) (EP)
- PA - GROW SOLUTIONS TECH LLC [US]
- TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD
- AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.



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- PN - [EP3638006](#) A1 20200422
- PR - [US201762519704P](#) 20170614; [US201762519701P](#) 20170614; [US201815991614](#) 20180529; [WO2018US35094](#) 20180530
- AP - [EP20180732574](#) 20180530
- DT - I
- CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)
- CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)
- CI - [A01D91/00](#) (US)
[A01G9/088](#) (EP, US)
[A01G31/042](#) (EP, US)
[G01G11/003](#) (EP)
[G01G11/043](#) (EP, US)
[G01N5/02](#) (US)

- G01N21/251 (EP)
- G01N21/314 (US)
- G05B15/02 (EP)
- CA - G01N2021/1776 (EP, US)
- G01N2021/8416 (EP, US)
- G01N2021/8466 (EP, US)
- G05B2219/45003 (EP)
- Y02P60/21 (EP)
- PA - GROW SOLUTIONS TECH LLC [US]
- TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD

33/46 © EPODOC / EPO

PN - [EP3638005](#) A1 20200422

PR - **US201762519704P** 20170614; **US201815985119** 20180521; **WO2018US35037** 20180530

AP - **EP20180732564** 20180530

DT - I

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)

CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G9/085 (EP, US)

- A01G9/088 (EP, US)
- A01G9/247 (EP, US)
- A01G31/042 (EP)
- G01G11/003 (EP)
- G01G11/043 (US)
- G01G19/042 (EP)
- G01G19/393 (EP)
- G01G19/415 (US)
- G01G19/42 (US)
- G01G19/52 (EP)

CA - G01F23/20 (EP)

- Y02A40/25 (EP)
- Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD

34/46 © EPODOC / EPO

PN - [WO2018231516](#) A1 20181220

PR - **US201762519704P** 20170614; **US201815985119** 20180521

AP - **WO2018US35037** 20180530

DT - **

CT - [EP] ISR (A1)

[US5611172](#) A 19970318 [IAY] (DUGAN THOMAS F [US], et al)

[I] 1

* abstract *

* figures 1-3 *

* column 2, line 48 - column 6, line 4 *

[A] 9,12,18

[Y] 2-8,10,11,13-17,19,20;

[US2015089867](#) A1 20150402 [Y] (ABBOTT JACK [US], et al)

[Y] 2,3,6-8,10,11,13-17,19,20

* abstract *

* figures 1-12 *

* paragraphs [0030] - [0136] *;

[GB2329029](#) A 19990310 [A] (CHERRY STEPHEN [GB])

[A] 1

* abstract *

* pages 2-5; figures 1-3 *;

[WO2013065043](#) A1 20130510 [Y] (PASKAL TECHNOLOGIES AGRICULTURE COOPERATIVE SOC LTD [IL])

[Y] 4,5,13

* abstract *

* figures 1-11 *

* claims 46-47 *

* pages 8-27 *;

[US2012260569](#) A1 20121018 [A] (GOLGOTIU KRISTI A [US], et al)

[A] 1
 * the whole document *;
[CN103493700](#) A 20140108 [A] (UNIV TONGJI)
 [A] 1
 * the whole document *;
[WO2012042084](#) A1 20120405 [A] (CONICET CONSEJO NAC DE INVESTIGACIONES CIENTIFICAS Y TECN [AR], et al)
 [A] 1
 * the whole document *

CCI - [A01G9/085](#) ; [A01G9/088](#) ; [A01G9/247](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G19/042](#) ; [G01G19/52](#)
 CCA - [G01F23/20](#) ; [Y02A40/25](#) ; [Y02P60/21](#)
 CI - A01G9/085 (EP, US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, US)
 - A01G31/042 (EP)
 - G01G11/003 (EP)
 - G01G11/043 (US)
 - G01G19/042 (EP)
 - G01G19/393 (EP)
 - G01G19/415 (US)
 - G01G19/42 (US)
 - G01G19/52 (EP)
 CA - G01F23/20 (EP)
 - Y02A40/25 (EP)
 - Y02P60/21 (EP)
 PA - GROW SOLUTIONS TECH LLC [US]
 TI - SYSTEMS AND METHODS FOR MANAGING A WEIGHT OF A PLANT IN A GROW POD
 AB - An assembly line grow pod includes a seeding region, a harvesting region, a track that extends between the seeding region and the harvesting region, a cart including a tray for holding plant matter, and a wheel coupled to the tray, where the wheel is engaged with the track, and a weight sensor positioned on the cart or the track, where the weight sensor is positioned to detect a weight of the plant matter positioned within the cart.

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PN - [WO2018231521](#) A1 20181220
 PR - **US201762519704P** 20170614; **US201762519701P** 20170614; **US201815991614** 20180529
 AP - **WO2018US35094** 20180530
 DT - **
 CT - [EP] ISR (A1)
[WO2017024353](#) A1 20170216 [XY] (E AGRI PTE LTD [SG])
 [X] 1-4,6-10,13,14
 * abstract *
 * figures 1-25 *
 * paragraphs [0100] - [0169] *
 [Y] 5,11,12,15-20;
[WO2013065043](#) A1 20130510 [X] (PASKAL TECHNOLOGIES AGRICULTURE COOPERATIVE SOC LTD [IL])
 [X] 1,4,6-8,13,14
 * abstract *
 * figures 1-11 *
 * claims 1, 15, 42 *
 * page 8, line 9 - page 34, line 12 *;
[JP2011120557](#) A 20110623 [X] (UNIV TOKYO AGRICULTURE)
 [X] 1,8
 * figures 1-7 *
 * paragraphs [0002] , [00 3] *
 * paragraphs [0010] - [0075] *;
[EP3127420](#) A1 20170208 [Y] (TSUBAKIMOTO CHAIN CO [JP])
 [Y] 5,20
 * abstract *
 * figures 1-13 *
 * claims 1, 2 *
 * paragraphs [0027] - [0108] *;
[US3771258](#) A 19731113 [Y] (CHARNEY A)
 [Y] 11,12,15-20
 * abstract *
 * figures 1-8 *
 * column 3, line 17 - column 6, line 59 *

CCI - [A01G9/088](#) ; [A01G31/042](#) ; [G01G11/003](#) ; [G01G11/043](#) ; [G01N21/251](#) ; [G05B15/02](#)

CCA - [G01N2021/1776](#) ; [G01N2021/8416](#) ; [G01N2021/8466](#) ; [G05B2219/45003](#) ; [Y02P60/21](#)

CI - A01D91/00 (US)
 - A01G9/088 (EP, US)
 - A01G31/042 (EP, US)
 - G01G11/003 (EP)
 - G01G11/043 (EP, US)
 - G01N5/02 (US)
 - G01N21/251 (EP)
 - G01N21/314 (US)
 - G05B15/02 (EP)

CA - G01N2021/1776 (EP, US)
 - G01N2021/8416 (EP, US)
 - G01N2021/8466 (EP, US)
 - G05B2219/45003 (EP)
 - Y02P60/21 (EP)

PA - GROW SOLUTIONS TECH LLC [US]

TI - SYSTEMS AND METHODS FOR DETERMINING HARVEST TIMING FOR PLANT MATTER WITHIN A GROW POD

AB - Systems and methods for determining harvest timing for a cart within an assembly line grow pod include identifying a type of the plant matter positioned within a cart, detecting at least one of a plant matter weight of the plant matter with a weight sensor, a plant matter height of the plant matter with a distance sensor, and a chlorophyll level of the plant matter with a camera, determining that the at least one of the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfies a harvest time parameters, and in response to determining that the detected plant matter weight, the detected plant matter height, and the detected chlorophyll level satisfy the harvest time parameters, directing the cart to a harvester system.

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PN - [WO2017024353](#) A1 20170216

PR - AU20150903244 20150811

AP - WO2016AU50730 20160811

DT - *; Rep

CT - [AU] ISR (A1)
[US2014017043](#) A1 20140116 [X] (HIRAI TATSUYA [JP], et al)
 [X] 1-28, 33-52, 55-57, 61
 * abstract, Figs 1-6D, paragraphs [0046]-[0129] *;
[US2014366443](#) A1 20141218 [X] (BRUSATORE NICHOLAS G [CA])
 [X] 1-61
 * abstract, Figs 1-14, paragraphs [0006]-[0007], [0029]-[0039], [0044]. *;
[US2013104452](#) A1 20130502 [A] (HASSLE HANS [SE])
 [A] 1-61
 * the whole document *;
[WO2014157671](#) A1 20141002 [A] (MITSUBISHI CHEM HOLDINGS CORP [JP])
 [A] 1-61
 * the whole document *

CCI - [A01G9/047](#) ; [A01G9/143](#) ; [A01G31/06](#)

CCA - [Y02A40/25](#) ; [Y02P60/21](#)

CI - A01G7/045 (KR)
 - A01G9/023 (US)
 - A01G9/047 (EP, KR, US)
 - A01G9/1423 (KR)
 - A01G9/143 (EP, KR, US)
 - A01G9/1438 (US)
 - A01G9/18 (US)
 - A01G9/20 (US)
 - A01G9/24 (KR)
 - A01G9/241 (US)
 - A01G9/247 (US)
 - A01G9/26 (US)
 - A01G27/003 (KR, US)
 - A01G31/06 (EP, KR, US)

CA - A01G7/02 (US)
 - A01G7/045 (US)
 - A01G2031/006 (US)
 - A01G31/04 (US)

	- B66F9/02 (US)
	- Y02A40/25 (EP, KR, US)
	- Y02P60/21 (EP, KR, US)
PA	- E AGRI PTE LTD [SG]
TI	- HIGH DENSITY HORTICULTURE GROWING SYSTEMS, METHODS AND APPARATUS
AB	- A high density horticulture growing system comprises a plurality of containers in which crops are grown and one or more elevator devices to automatically move the containers between vertically spaced levels of one or more modular racks. Each elevator device comprises a carrier to transport the containers between the vertically spaced levels and a ram to push the containers from the carrier onto one or more longitudinal supports at the vertically spaced levels. A first conveying device moves containers at least horizontally from a crop planting area to each rack and a second conveying device moves containers at least horizontally from each rack to a crop storage area. One or more processors control movement of the containers, watering of the crops, temperature, lighting and other parameters of the system. A plurality of the high density horticulture growing systems are in communication with a centralised data monitoring and collection system for the transmission and reception of data relating to the growing of crops.

37/46 © EPODOC / EPO

PN	- EP3127420 A1 20170208
PNFP	- EP3127420 A4 20171115
PR	- JP20140077212 20140403; WO2015JP60064 20150331
AP	- EP20150772795 20150331
DT	- *; Rep
CT	- STSE (A4) US2012324788 A1 20121227 [IAY] (SAKURA SYUNJI [JP], et al) [I] 1,10 * paragraph [0033]; figure -; claim - * [A] 5-8 [Y] 2-4,9,11; JP2011188773 A 20110929 [] (TSUBAKIMOTO CHAIN CO); JP2013183702 A 20130919 [Y] (HAMAMATSU PHOTONICS KK, et al) [Y] 2-4 * abstract *; JP2014018189 A 20140203 [YA] (KOBAYASHI CREATE CO LTD) [Y] 9,11 * abstract * [A] 1-8,10
CCI	- A01G31/06
CCA	- A01G7/00 ; Y02P60/21
CI	- A01G7/045 (US) - A01G9/027 (US) - A01G9/0299 (US) - A01G31/06 (EP, US) - G06K9/00657 (US) - H05B47/16 (US)
CA	- A01G7/00 (EP, US) - Y02P60/21 (EP, US)
PA	- (A1 A4) TSUBAKIMOTO CHAIN CO [JP]
TI	- (A1 A4) CULTIVATION SYSTEM
AB	- (A1) Provided is a cultivation system, whereby it becomes possible to improve and uniformize the quality of plant bodies cultivated in a plant production factory and to achieve cost reduction. A cultivation system equipped with: multiple cultivation containers, each of which accommodates plant bodies and a culture medium for cultivating the plant bodies and is provided with a recording medium for recording identification information that is used for identifying each of the plant bodies; a cultivation shelf, in which multiple shelf plates respectively having the cultivation containers placed thereon are arranged at predetermined space intervals; light sources, each of which emits vegetating light over the upper surface of each of the shelf plates; and a conveyance device for conveying the cultivation containers between the multiple shelf plates. In the cultivation system, each of the cultivation containers can accommodate multiple plant bodies and is equipped with a recording medium, identification information that is used for identifying each of the accommodated multiple plant bodies. The cultivation system is additionally equipped with: an inspection unit which has an accommodation section in which one or more of the cultivation containers are accommodated, wherein the inspection unit can inspect each of the multiple plant bodies accommodate in the cultivation container or the cultivation containers placed in the accommodation unit; and a recording unit which can record the result of the inspection of each of the plant bodies, which is obtained by the inspection unit, on the recording medium provided in the cultivation containers in connection with the identification information for the

corresponding plant body.

38/46 © EPODOC / EPO

PN - [US2015089867](#) A1 20150402

PR - US201414505346 20141002; US201361886027P 20131002

AP - US201414505346 20141002

DT - **

CT - || R141 (A1)
[US2011147617](#) A1 20110623 [] (SHUR MICHAEL [US], et al);
[US2009025287](#) A1 20090129 [] (LEE YU MEI [US]);
[US2014236868](#) A1 20140821 [] (COOK KENNETH W [US]);
[US2013006401](#) A1 20130103 [] (SHAN XINXIN [CA]);
[US2013258684](#) A1 20131003 [] (YANG YANG [US], et al);
[US2005281027](#) A1 20051222 [] (CAPEN LARRY S [US], et al);
[US2008008812](#) A1 20080110 [] (OCHIAI KOJI [US], et al)

CCI - [A01G7/045](#) ; [A01G9/00](#) ; [H05B45/00](#) ; [H05B47/155](#) ; [H05B47/16](#) ; [H05B47/175](#)

CCA - [Y02B20/40](#) ; [Y02P60/14](#)

CI - A01G7/045 (EP, US)
- A01G9/00 (EP, US)
- H05B45/00 (EP, US)
- H05B47/10 (US)
- H05B47/155 (EP, US)
- H05B47/16 (EP, US)
- H05B47/175 (EP, US)

CA - Y02B20/40 (EP, US)
- Y02P60/14 (EP, US)

PA - INTELLIGENT LIGHT SOURCE LLC [US]

TI - INTELLIGENT LIGHT SOURCES TO ENHANCE PLANT RESPONSE

AB - A grow system is disclosed herein. The grow system can include a grow device that can include a light system including a plurality of light sources, a light position controller, and a processor. The processor can receive information relating to a plant to be grown by the grow system and can, based on that information, identify an operation program that specifies lighting and positioning of the illumination system. Using the operation program, the processor can generate one or several control signals to control the operation of the light system and the light position system.

39/46 © EPODOC / EPO

PN - [CN103493700](#) A 20140108

PNFP - CN103493700B B 20151028

PR - CN201310433318 20130922

AP - CN201310433318 20130922

DT - I

CT - || STSE (A)
[JP09233961](#) A 19970909 [A] (YANMAR AGRICULT EQUIP)
[A] 1-9
* 全文 *;
[CN103171869](#) A 20130626 [A] (UNIV TONGJI)
[A] 1-9
* 全文 *;
[CN103193186](#) A 20130710 [A] (UNIV TONGJI)
[A] 1-9
* 全文 *;
[CN102499030](#) A 20120620 [A] (UNIV JIANGSU)
[A] 1-9
* 全文 *;
[US2012260569](#) A1 20121018 [X] (GOLGOTIU KRISTI A [US], et al)
[X] 1-9
* 说明书第29-37段、图1-3,14-15 *;
[CN102937557](#) A 20130220 [A] (UNIV JIANGSU)
[A] 1-9
* 全文 *;
[CN102870654](#) A 20130116 [A] (UNIV CHINA AGRICULTURAL)
[A] 1-9
* 全文 *

CCA - [Y02A40/22](#)

CA - Y02A40/22 (EP)
 PA - (A)
 UNIV TONGJI
 TI - (A)
 Accurate irrigation integral system for mobile seedbed
 AB - (A)
 The invention relates to an accurate irrigation integral system for a mobile seedbed. The accurate irrigation integral system for the mobile seedbed comprises a seedling culture bed (1), a transmission mechanism (2), a weighing mechanism (3), a sprinkling irrigation mechanism (4) and a computer. The sprinkling irrigation mechanism (4) is fixed on the transmission mechanism (2). The weighing mechanism (3) is arranged below the sprinkling irrigation mechanism (4), and an upper weight limiting value and a lower weight limiting value of the seedling culture bed (1) are stored in the computer. The computer controls the conveying mechanism (2) to convey the seedling culture bed (1) to a position below the sprinkling irrigation mechanism (4) and place the seedling culture bed (1) on the weighing mechanism (3). The weighing mechanism (3) weighs the seedling culture bed (1). The computer compares a weighing result with the upper weight limiting value and the lower weight limiting value of the seedling culture bed (1) and controls the sprinkling irrigation mechanism (4) to perform sprinkling irrigation on the seedling culture bed (1). Compared with the prior art, the accurate irrigation integral system for the mobile seedbed has the advantages of being convenient to operate, low in labor cost, high in working efficiency, wide in application range, easy to popularize and the like.

40/46 © EPODOC / EPO

PN - [WO2013065043](#) A1 20130510
 PR - US201161553220P 20111030; US201261719450P 20121028
 AP - WO2012IL50427 20121030
 DT - *; Rep
 CT - [EP] ISR (A1)
[US2008120335](#) A1 20080522 [I] (DOLGOFF ALEXEI [US])
 [I] 1-48
 * paragraph [0006] - paragraph [0022] *
 * paragraph [0042] - paragraph [0065] *;
[WO2010087699](#) A1 20100805 [I] (PRIVA BV [NL])
 [I] 1-48
 * page 3, line 19 - page 20, line 14 *;
[US2003005626](#) A1 20030109 [Y] (YONEDA KENJI [JP], et al)
 [Y] 1-48
 * paragraph [0028] - paragraph [0031] *
 * paragraph [0042] - paragraph [0101] *;
[US4430828](#) A 19840214 [Y] (OGLEVEE JAMES R [US], et al)
 [Y] 1-48
 * column 1, line 44 - column 3, line 68 *;
[US7502655](#) B2 20090310 [I] (ALBRIGHT LOUIS D [US], et al)
 [I] 1-48
 * column 2, line 30 - column 11, line 10 *

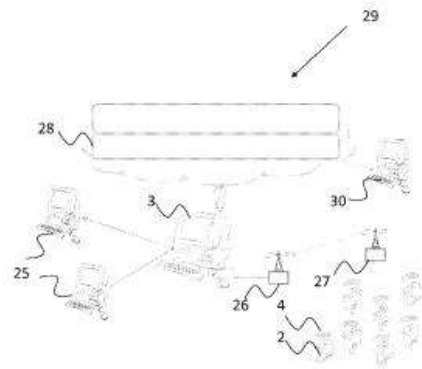


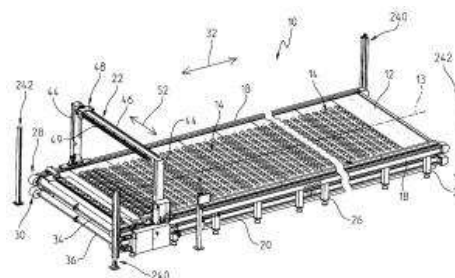
Fig. 3

CCI - [A01G9/12](#) ; [A01G9/143](#) ; [G01N33/0098](#) ; [G05B11/32](#) ;
[G05B15/02](#)
 CCA - [Y02A40/25](#)
 CI - A01G9/12 (EP, US)
 A01G9/143 (EP, US)
 G01G19/00 (US)
 G01N33/0098 (EP, US)
 G05B11/32 (EP, US)
 G05B15/02 (EP, US)
 CA - Y02A40/25 (EP, US)
 PA - PASKAL TECHNOLOGIES AGRICULTURE COOPERATIVE SOC LTD [IL]
 TI - SELF-LEARNING OF PLANT GROWTH STRATEGY IN A GREENHOUSE
 AB - A system for monitoring plants in a greenhouse, the system comprising: a plurality of weighing units, the weighing units distributed in the greenhouse, each of the weighing units is attached to a single plant or group of plants and comprising means for weighing the plant or group of plants, the weighing units are trellising from an elevated wire at one end and connected to the top end of the plant or group of plants at the opposite end; a communication network comprising means for communicating the weight of the plant or group of plants from the weighing units to a central unit; and a central unit, the central unit comprising means for receiving, storing, processing

and analyzing data received from the weighing units through the communication network.

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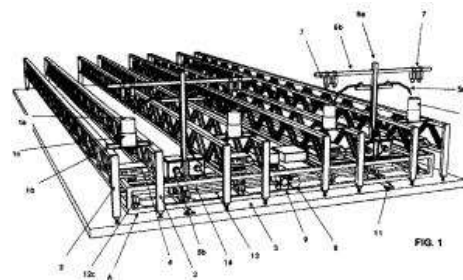
- PN - [US2012260569](#) A1 20121018
- PNFP - US8955252 B2 20150217
- PR - US201213444095 20120411; US201161476055P 20110415
- AP - US201213444095 20120411
- DT - *, Rep
- CT - || R141 (A1)
[US5241786](#) A 19930907 [] (BURNS IVEY L [US], et al);
[US6314340](#) B1 20011106 [] (MECHAM BRENT Q [US], et al);
[US3293799](#) A 19661227 [] (KELLER GEORGE F, et al);
[US5361534](#) A 19941108 [] (BURNS IVEY L [US], et al);
[US2010286833](#) A1 20101111 [] (KAPRIELIAN CRAIG L [US]);
[US8584397](#) B1 20131119 [] (MARSH JAMES [US]);
[US5611172](#) A 19970318 [] (DUGAN THOMAS F [US], et al);
[US6124554](#) A 20000926 [] (MUCKLE THOMAS A [US], et al);
[USRE27234E](#) E 19711109 [];
[US2005086861](#) A1 20050428 [] (ATCHLEY FREDERIC P [US]);
[US5020275](#) A 19910604 [] (BEDNARZIK UWE H [US])
 - || STSE (B2)
[US3293799](#) A 19661227 [] (KELLER GEORGE F, et al);
[USRE27234E](#) E 19711109 [];
[US5020275](#) A 19910604 [] (BEDNARZIK UWE H [US]);
[US5241786](#) A 19930907 [] (BURNS IVEY L [US], et al);
[US5361534](#) A 19941108 [] (BURNS IVEY L [US], et al);
[US5611172](#) A 19970318 [] (DUGAN THOMAS F [US], et al);
[US6124554](#) A 20000926 [] (MUCKLE THOMAS A [US], et al);
[US6314340](#) B1 20011106 [] (MECHAM BRENT Q [US], et al);
[US8584397](#) B1 20131119 [] (MARSH JAMES [US]);
[US2005086861](#) A1 20050428 [] (ATCHLEY FREDERIC P [US]);
[US2010286833](#) A1 20101111 [] (KAPRIELIAN CRAIG L [US])
 CTNP - || R141 (A1)
 [] - Un automate de phenotypage pour cultiver des plantes a des etats hydriques du sol controles: Un outil d'aide a la cracterisation de la reponse de la croissance et de la transpiration a la secheresse; by, Myariam Dauzat, Emmanuel Simon, Christine Granier, Philippe Hamard, Dertrand Muller, Angelique Christophe, Didier Combes, Francois TardieuThier
 [] - PHENOPSIS, An automated platform for reproducible phenotyping of plant responses to soil water deficit in Arabidopsis thaliana permitted the identification of an accession with low sensitivity to soil water deficit, New Phytologist (January 2006) 169:623-635by Christine Granier et al
 - || STSE (B2)
 [] - Un automate de phenotypage pour cultiver des plantes a des etats hydriques du sol controles: Un outil d'aide a la cracterisation de la reponse de la croissance et de la transpiration a la secheresse; by, Myariam Dauzat, Emmanuel Simon, Christine Granier, Philippe Hamard, Dertrand Muller, Angelique Christophe, Didier Combes, Francois TardieuThier.
 [] - Phenopsis, An automated platform for reproducible phenotyping of plant responses to soil water deficit in Arabidopsis thaliana permitted the identification of an accession with low sensitivity to soil water deficit, New Phytologist (Jan. 2006) 169:623-635by Christine Granier et al.
 CCI - [A01G9/088](#) ; [A01G9/247](#) ; [A01G27/003](#) ; [A01G27/02](#)
 CCA - [A01G9/143](#) ; [Y02A40/25](#)
 CI - A01G7/00 (CN, US)
 - A01G9/02 (US)
 - A01G9/088 (EP, US)
 - A01G9/247 (EP, CN, US)
 - A01G25/167 (CN)
 - A01G27/003 (EP, CN, US)
 - A01G27/02 (EP, US)



- CA - A01G9/143 (EP, US)
- Y02A40/25 (EP, US)
- PA - (A1)
GOLGOTIU KRISTI A [US]; HERVE PHILIPPE [BE]; KELLER DOUGLAS [US]; SWARTWOOD TROY M [US]; DONALDSON JEFFREY D [US]; DOW AGROSCIENCES LLC [US]
- (B2)
GOLGOTIU KRISTI A [US]; HERVE PHILIPPE [BE]; KELLER DOUGLAS [US]; SWARTWOOD TROY M [US]; DONALDSON JEFFREY D [US]; DOW AGROSCIENCES LLC [US]
- TI - (A1)
AUTOMATED GRAVIMETRIC SCREENING PLATFORM SYSTEM AND METHOD
- (B2)
Automated gravimetric screening platform system and method
- AB - (A1 B2)
An automated gravimetric screening system and method controls soil moisture in a plurality of potted plants to perform water deficit experiments in a greenhouse using a stationary support platform and pot design that maintains the plants in a static location during the testing. By weighing and re-watering the pots from beneath the platform, the present system and method permits an upper gantry to capture high resolution images, temperature data, or other sensor data to quantify the plant stress level or plant canopy characteristics during the experiment.

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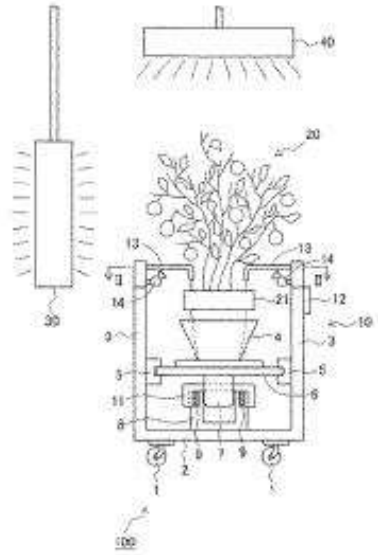
- PN - [WO2012042084](#) A1 20120405
- PR - AR2010P103498 20100927
- AP - WO2011ES70667 20110926
- DT - *; Rep
- CT - [ES] ISR (A1)
[US5764819](#) A 19980609 [A] (ORR PETER M [US], et al)
- CTNP - [ES] ISR (A1)
[X] - DAUZAT M ET AL., "Un automate de phénotypage pour cultiver des plantes à des états hydriques du sol contrôlés : Un outil d'aide à la caractérisation from réponse from croissance et from transpiration à the sécheresse", PDF: PHENOPSIS_DAUZAT_CAHIER_DES_TECHNIQUES, (2004), URL: <http://bioweb.supagro.inra.fr/phenopsis/infoBDD4.php>
[X] - GRANIER C ET AL., "PHENOPSIS, an automated platform for reproducible phenotyping of plant responses to soil water deficit in Arabidopsis thaliana permitted the identification of an accession with low sensitivity to soil water deficit.", PDF: PHENOPSIS, AUTOMATED PLATFORM NEW PHYTOLOGIST, (2006), URL: <http://bioweb.supagro.inra.fr/phenopsis/infoBDD4.php>
[A] - GERIE VAN DER HEIJDEN, "Large scale phenotyping of tall pepper plants in the greenhouse", PDF: 2IPPSJUELICH_HEIJDEN 30092011., (20110707), URL: <https://www.congressa.of/phenosymp2011/index.php?articleid=50>
[A] - DENES DUDITS., "Drought response of cereal plants monitored by the complex stress diagnostic system in greenhouse and field studies", PDF: 2IPPSJUELICH_DUDITS, (20110707), URL: <https://www.congressa.of/phenosymp2011/index.php?articleid=50>
- CCI - [A01G7/00](#) ; [A01G9/247](#) ; [A01G27/003](#) ; [A01H1/04](#) ; [A01H3/00](#)
- CCA - [Y02A40/25](#)
- CI - A01G7/00 (EP)
- A01G9/247 (EP)
- A01G27/003 (EP)
- A01H1/04 (EP)
- A01H3/00 (EP)
- CA - Y02A40/25 (EP)
- PA - CONICET CONSEJO NAC DE INVESTIGACIONES CIENTIFICAS Y TECN [AR]; CASTAGNARO ROSINI ATILIO PEDRO [ES]; AGUIRREZABAL LUIS [AR]; PEREYRA IRUJO GUSTAVO [AR]; GASCO EMMANUEL [AR]



- TI - AUTOMATIC PHENOTYPING PLATFORM
- AB - The invention relates to an automatic phenotyping platform, preferably used for plants suffering from a water deficit, which simplifies the task of phenotyping and allows the simultaneous handling of a plurality of plants, as well as the automatic loading of the results obtained for later analysis. The platform includes at least one pair of beams (2) between which at least one plant (1a) is located, and under which a carriage (A) having wheels (10) is located, wherein said carriage can move along said at least one pair of beams (2); and wherein the carriage (A) has at least one weighing means (4) with a mechanism for raising and lowering same, locating said weighing means (4) under the plant (1a); at least one irrigation means (5a, 5b) and at least one means (7) for capturing images of plants; wherein said weighing means (4), irrigation means (5a, 5b) and image capture means are connected to a central computer that is able to store the received data and to vary the activation times of irrigation and measurement by means of the connection to said means of irrigation (5a, 5b).

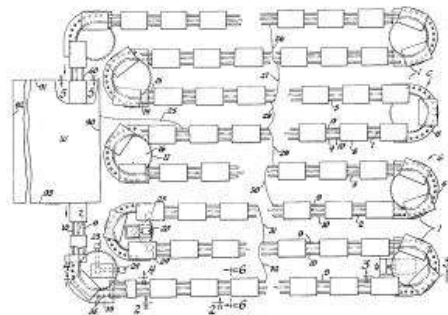
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- PN - [JP2011120557](#) A 20110623
- PR - JP20090283372 20091214
- AP - JP20090283372 20091214
- DT - I
- CT - || STSE (A)
[JP2005295955](#) A 20051027 [] (OSAKA IND PROMOTION ORG, et al);
[JP2006191816](#) A 20060727 [] (COSMO PLANT KK);
[JPH05211822](#) A 19930824 [] (MOTODA ELECTRONICS);
[JP4022219B](#) B2 20071212 []
- FI - A01G1/00&3012; A01G22/05&Z; A01G7/00&601A; A01G7/00&603; A01G9/00&B; A01G9/00&C
- FT - 2B022/AB15; 2B022/BB02; 2B022/DA01; 2B327/NA10; 2B327/TA18; 2B327/TC04; 2B327/TC15; 2B327/UA07; 2B327/UB03
- PA - UNIV TOKYO AGRICULTURE
- TI - PLANT CULTIVATION SYSTEM
- AB - PROBLEM TO BE SOLVED: To provide a plant cultivation system usable for various kinds of plants, and also achieving crop yields remarkably higher than conventional ones.
- SOLUTION: The plant cultivation system includes: a placing board on which a plant having a trunk growing at least upward is placed; and a lighting device bringing light to the plant placed on the placing board. The lighting device has means for irradiating the whole periphery of the plant with the light at least from a side thereof. The means includes at least one of the followings (a), (b), and (c): (a) means for making the plant rotate on its own axis; (b) means for making the lighting device go around the plant; and (c) means where a plurality of the lighting devices are arranged at uniform intervals around the plant.
- COPYRIGHT: (C)2011, JPO&INPIT



44/46 © EPODOC / EPO

- PN - [US3771258](#) A 19731113
- PR - US19710141894 19710510
- AP - USD3771258 19710510
- DT - *, Rep
- CT - || STSE (A)
[US1753980](#) A 19300408 [] (EMIL BAUMGARTNER);
[US1793626](#) A 19310224 [] (FOWLER MCCORMICK);
[US3276163](#) A 19661004 [] (KARL OEPEN, et al);
[US3292305](#) A 19661220 [] (STENGEL PAUL G);
[US3324593](#) A 19670613 [] (WILLI STRASSER);
[US3327425](#) A 19670627 [] (MIROSLAV DOSEDLA, et al);
[US3579907](#) A 19710525 [] (GRAVES RODNEY J);
[US3606697](#) A 19710921 [] (EDEN DOUGLAS H)



CCI - [A01G9/143](#) ; [A01G31/042](#)
CCA - [Y02A40/25](#) ; [Y02P60/21](#)
CI - A01G9/143 (EP, US)
- A01G31/042 (EP, US)
CA - Y02A40/25 (EP, US)
- Y02P60/21 (EP, US)
PA - CHARNEY A
TI - CONVEYORIZED FARMING SYSTEM
AB - Farming is conducted by planting crops in soil carried by pallets connected together in an endless chain and moved around a serpentine-like trackway, the major length of which is laid out over external terrain so that the contents of the pallets may be exposed to the sun and weather for nurturing and growth of the crops, and all planting, soil treatment and harvesting operations are performed at a central work area extending along a relatively short section of the trackway.

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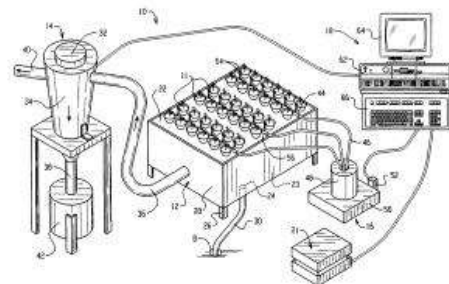
PN - [US5611172](#) A 19970318
PR - US19950369306 19950106; US19920957618 19921006
AP - US19950369306 19950106
DT - *; Rep
CT - || STSE (A)

[US1909013](#) A 00000000 [];
[US2446509](#) A 00000000 [];
[US2664670](#) A 00000000 [];
[US3738956](#) A 00000000 [];
[US3857934](#) A 00000000 [];
[US3962823](#) A 00000000 [];
[US4014134](#) A 00000000 [];
[US4079547](#) A 00000000 [];
[US4411921](#) A 00000000 [];
[US4423080](#) A 00000000 [];
[US5136804](#) A 00000000 [];
[US5217696](#) A 00000000 [];
[US5269094](#) A 00000000 [];
[US5277877](#) A 00000000 [];
[EP0300536](#) A1 00000000 [];
[JPH04356144](#) A 00000000 [];
[JPH0584027](#) A 00000000 [];
[SU1644828](#) A1 00000000 []

CTNP - || STSE (A)
[] -
Pollution Eater , News Herald (Lake County, Ohio), Oct. 18, 1992,
Home Sectionp. 15.

CCI - [A01G7/00](#)
CI - A01G7/00 (EP)
PA - AGRIPAK INC [US]
TI - Apparatus for the treatment of live plants

AB - An apparatus for the efficient treatment of a live plant is provided. In particular, the apparatus can be used to treat a live plant before being packaged in a sealed container in which the plant can live without any of the care or maintenance that live plants normally require. The apparatus comprises a substantially sealed pressure vessel, a vacuum system, and a root treatment system. The substantially sealed pressure vessel receives the container having the rooting medium and the roots of the live plant maintained therein. The container also has a runoff opening therein. The vacuum system, which is connected to the pressure vessel, draws air through the pressure vessel and live plant and thereby removes a predetermined amount of fluid from the rooting medium via the runoff opening. The root treatment system then adds a predetermined amount of a root treatment solution to the rooting medium.



46/46 © EPODOC / EPO

PN - [GB2329029](#) A 19990310
 PNFP - [GB2329029](#) B 20011121
 PR - GB19970018887 19970906
 AP - GB19970018887 19970906
 DT - *: Rep
 CT - || STSE (A B)
 [GB2229541](#) A 00000000 [];
 [GB2247321](#) A 00000000 [];
 [GB2268593](#) A 00000000 [];
 [GB2268594](#) A 00000000 [];
 [GB2307560](#) A 00000000 [];
 [US4165633](#) A 00000000 [];
 [US4454831](#) A 00000000 []
 CCI - [A01G27/008](#) ; [G01G19/40](#)
 CCA - [G01N5/045](#)
 CI - A01G27/008 (EP)
 G01G19/40 (EP)
 CA - G01N5/045 (EP)
 PA - (A B)
 CHERRYSTEPHEN[GB]
 TI - (A)
 Moisture content indicator for plants
 (B)
 Moisture level indicator
 AB - (A)
 The amount of water that needs to be applied to a plant in a growing medium held in a container is established by determining an optimum total mass for the plant, growing medium, moisture and container, by standing the optimally-watered plant in its container on a base unit 11] of apparatus provided with a weight sensor [9] and a display means (2), displaying the optimum total mass, and optionally other relevant data. Reactivation of the apparatus from time to time will indicate loss of water through transpiration, providing an indication from the processing unit (6) as to whether additional water is needed, and how much water need be added. A temperature sensor (10) may be provided. The device may be battery or solar powered.

