

Search query (1): [SP]: A system for controlling a balanced state of an assembly line grow pod, comprising: a plurality of carts carrying plants, seeds, or both; a plurality of fluid holding tanks arranged in an assembly line grow pod and for supplying fluid to the plants and the seeds; pressure sensors arranged in association with the fluid holding tanks; a ballast tank fluidly connected to the fluid holding tanks and for holding ballast water; a ballast controller coupled to the ballast tank and operable to determine a balanced state of the assembly line grow pod, wherein the ballast controller is operable to: receive from the the pressure sensors a first set of data indicative of the weight of the fluid; receive a second set of data indicative of weight of plants grown; determine the balanced state of the assembly line grow pod, based on the first set of data and the second set of data, at a selected location of the assembly line grow pod; and maintain the balanced state of the assembly line grow pod by moving a flow of the ballast water between the ballast tank and the selected location.

Results: 15

Search history

Search [SP]: A system for controlling a balanced state of an assembly line grow pod, comprising: a plurality of carts carrying plants, seeds, or both; 1: a plurality of fluid holding tanks arranged in an assembly line grow pod and for supplying fluid to the plants and the seeds; pressure sensors arranged in association with the fluid holding tanks; a ballast tank fluidly connected to the fluid holding tanks and for holding ballast water; a ballast controller coupled to the ballast tank and operable to determine a balanced state of the assembly line grow pod, wherein the ballast controller is operable to: receive from the the pressure sensors a first set of data indicative of the weight of the fluid; receive a second set of data indicative of weight of plants grown; determine the balanced state of the assembly line grow pod, based on the first set of data and the second set of data, at a selected location of the assembly line grow pod; and maintain the balanced state of the assembly line grow pod by moving a flow of the ballast water between the ballast tank and the selected location. (Results 15)

1) Family number: 56544139 (US2014144078A)

© PatBase

Title: MODULAR AUTOMATED AEROPONIC GROWTH SYSTEM

Priority: US20120729754P 20121126 US20130090869 20131126 US20160376080 20161212

Family:

Publication number	Publication date	Application number	Application date
US2014144078 AA	20140529	US20130090869	20131126
US2017099790 AA	20170413	US20160376080	20161212
US9516822 BB	20161213	US20130090869	20131126
US10555466 BB	20200211	US20160376080	20161212

Probable Assignee: GONYER DAEGAN

Assignee(s):(std): GONYER DAEGAN ; JONES SHAUN

Inventor(s):(std): GONYER DAEGAN ; JONES SHAUN

Agent(s): DENNIS B; WOODS OVIATT GILMAN LLP; DANELLA ESQ DENNIS B

International class (IPC 8-9): A01G27/00 A01G27/02 A01G31/02 F21S2/00 F21V33/00 H05B33/08 H05B37/02 (Advanced/Invention); F21Y113/13 F21Y115/10 (Advanced/Non-invention)

CPC: A01G31/02 F21S2/005 F21V33/00 F21Y2113/13 F21Y2115/10 H05B45/20 H05B47/11 H05B33/0872 H05B37/0218 Y02P60/21

US class: 1/1 47/62A

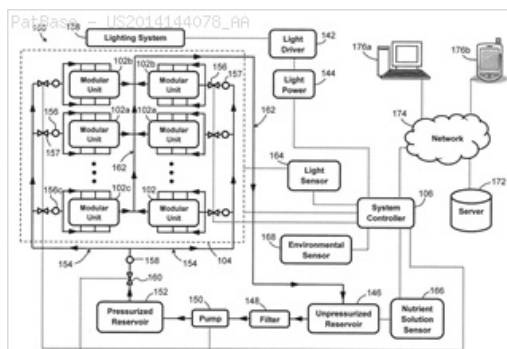
[Classification Explorer](#)

Cited documents: US8074397 BB, US6233870 BA, US5771634 A, US5394647 A, US4937969 A, US4332105 A, US3053011 A, US2009223128 AA, US2009126269 AA, US2009022312 AA, US2009007486 AA, US2009000748 AA, US2008229661 AA,

Forward Citations: WO19057901, WO18231524, WO18231358, WO18132779, WO17205523, WO16018767, USD861384, USD858148, USD857425, USD829471, US9986697, US9974243, US9807949, US9693512, US9603316, US9532516, US9374951, US2018332788, US2018332786, US2018007845, US2017208760, US2016286736, US2016255781, US2016044879, US2015289463, US2014182203, US10709076, US10681880, US10123491, US10070600, US10064347, JP2017527269, GB2579900, GB2578919, EP3280248, EP3187039, EP3187039, CN108184300, CN108184300, CN108157157,

Abstract:

An aeroponic growth system comprising a plurality of modular aeroponic units each including at least one spray nozzle directed into a root zone; a lighting system associated with the plurality of the modular units and configured for emitting light in a vegetative zone; a pressurized reservoir configured for housing a nutrient containing fluid; and a nutrient feeding system configured for fluidly and selectively connecting each of the modular units to the pressurized reservoir in parallel, wherein the nutrient feeding system includes a pressure stop valve associated with each of the modular units. When one of the modular units are disconnected to the associated pressure stop valve, the pressure stop valve is configured for preventing the fluid from flowing from the pressurized reservoir through the pressure stop valve, and the other modular units connected to the nutrient feeding system remain fluidly connected to the pressure reservoir.



2) Family number: 57428260 (US2014259919A)

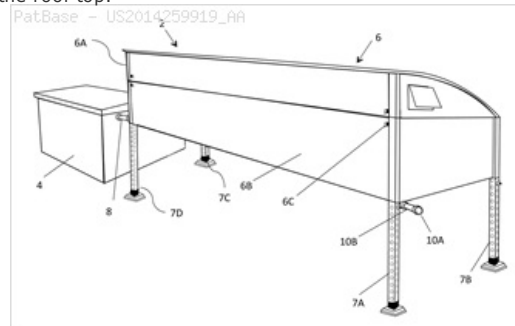
© PatBase

Title: CONFIGURABLE MODULAR ROOFTOP FARMING SYSTEM**Priority:** US20130843674 20130315**Family:**

Publication number	Publication date	Application number	Application date
US2014259919 AA	20140918	US20130843674	20130315

Probable Assignee: VINTAGE OFF CAMPUS RESIDENCES INC DBA CITYBLOOMS**Assignee(s):(std):** HALMOS NICHOLAS**Assignee(s):** VINTAGE OFF CAMPUS RESIDENCES INC DBA CITYBLOOMS**Inventor(s):(std):** HALMOS NICHOLAS**International class (IPC 8-9):** A01G31/02 (Advanced/Invention)**CPC:** A01G31/02 Y02P60/21**US class:** 47/59R 47/62C 47/62R[Classification Explorer](#)**Cited documents:** US6219966 BA, US5009029 A, US4813176 A, US4753036 A, US4447983 A, US3300895 A, US2013160362 AA, US2013152469 AA, US2013074408 AA, US2012297675 AA, US2009126269 AA,**Forward Citations:** WO18231443, US2016157439, US2016135395, US10681880, CN107548792, CN105309228, CN105309228,**Abstract:**

A modular hydroponic growth system and method for roof top farming. The system includes a nutrient solution reservoir and preferably at least one plant growth module. Each module may be repositioned upon a roof top to distribute higher weight-density components over strong points or legally specified areas of the roof. A frame preferably using industry standard components is joined with the system modules to increase the stability of a resulting aggregated structure. The water reservoir may alternatively be configured to circulate water through one or more growth modules or to simply deliver water through channels to the growth modules. The frame may optionally be affixed or attached to the roof top.

**3) Family number: 15248276** (FR2739252A)

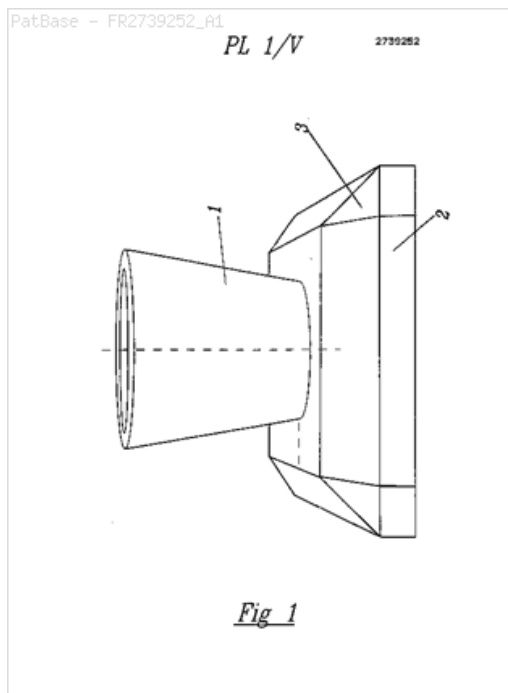
© PatBase

Title: Watering support container for potted plants**Priority:** FR19950011549 19951002**Family:**

Publication number	Publication date	Application number	Application date
FR2739252 A1	19970404	FR19950011549	19951002
FR2739252 B1	20010202	FR19950011549	19951002

Probable Assignee: HAUTECOEUR REGIS**Assignee(s):(std):** HAUTECOEUR REGIS**International class (IPC 8-9):** A01G27/04 (Advanced/Invention); A01G27/00 (Core/Invention)**International class (IPC 1-7):** A01G27/06**CPC:** A01G27/04**European class:** A01G27/04[Classification Explorer](#)**Cited documents:** US5172516 A, US5111614 A, US2695474 A, GB2127688 A1,**Forward Citations:** WO12155978, US10681880, FR2830177, FR2803981, EP2709437, EP1120029,**Abstract:**

The support for seating potted plants comprises a container (1) which takes the pot. The moulded container has a double wall (6) connected to a foundation (2). This parallelepiped foundation is hollow and contains water which ballasts and humidifies the plant in the pot. The foundation is filled with water through a hole (4) in the internal bottom of the container. The container double wall enables air, hydrated by water in the foundation, to circulate freely. Communication between the foundation and the container is obtained through the filling hole and an air hole (5) in the container internal wall. A removable wick (15) can be introduced into the filling hole to cause flow of water from the foundation into the container. On each side of the foundation encastre trapezoidal ferrules (3) increase the carrying surface.



4) Family number: 57439335 (US2014283451A)

© PatBase

Title: HYDROPONIC ARRAY FOR THE INDIVIDUALIZED DELIVERY OF NUTRIENTS

Priority: US20130848679 20130321

Family:

Publication number	Publication date	Application number	Application date
US2014283451 AA	20140925	US20130848679	20130321
US9433160 BB	20160906	US20130848679	20130321

Probable Assignee: DISNEY ENTERPRISES INC

Assignee(s):(std): DISNEY ENTPR INC

Assignee(s): DISNEY ENTERPRISES INC

Inventor(s):(std): SOOHOO ELAINE

Agent(s): SHEPPARD MULLIN RICHTER AND HAMPTON LLP

International class A01G31/02 A01G7/06 A01G9/24 (Advanced/Invention)
(IPC 8-9):

CPC: Y02A40/25 Y02P60/21 A01G7/06 A01G9/247 A01G31/02

US class: 1/1 47/59R 47/62N 47/62R

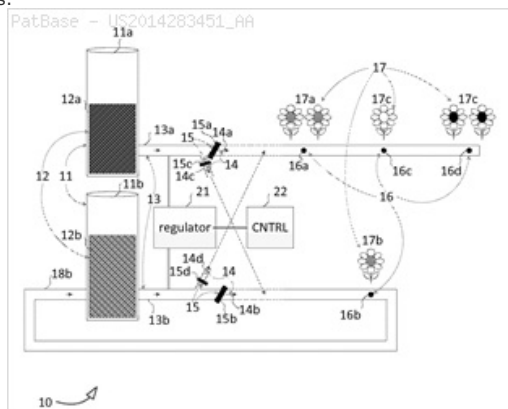
[Classification Explorer](#)

Cited documents: USRE31023 E, US8033049 BB, US7937187 BB, US7832144 BB, US6947810 BB, US6549851 BB, US6243987 BA, US5862628 A, US5826374 A, US5807604 A, US5798150 A, US5624838 A, US5525505 A, US4992942 A, US4788085 A, US4149970 A, US2014182204 AA, US2014182203 AA, US2013333282 AA, US2012227322 AA, US2011244011 AA, US2010218423 AA, US2008302002 AA, US2008120335 AA, US2006254138 AA, US2006150497 AA,

Forward Citations: WO18111064, US2018132434, US2017127627, US2016219809, US2016037738, US2015289463, US10750687, US10681881, US10681880, US10342190, EP3354128,

Abstract:

Systems and methods configured to deliver fluids to an array of plant deliver different fluids to different plants or groups of plants. The fluids include one or more of nutrients, dyes, insecticides, and/or herbicides. Delivery may be controlled such that a graphic and/or image is depicted by an array of plants or groups of plants.



5) Family number: 53959341 (US8453380B)

© PatBase

Title: HORTICULTURE AND FLORICULTURE MOTIVATING SYSTEM

Priority: US20080080145P 20080711 US20090502031 20090713

Family:

Publication number	Publication date	Application number	Application date
■ US8453380 BA	20130604	US20090502031	20090713

Probable Assignee: FORMFLEX CANADA INC

Assignee(s):(std): BARENDREGT ARIE PIETER NICOLAAS ; FORMFLEX AUTOMATION USA LTD ; HELDER BRYAN ; TEN VEEN JOHAN ; VAN ADRICHEM LEO GERARDUS

Assignee(s): FORMFLEX CANADA INC

Inventor(s):(std): BARENDREGT ARIE PIETER NICOLAAS ; HELDER BRYAN ; TEN VEEN JOHAN ; VAN ADRICHEM LEO GERARDUS

Agent(s): PRICE HENEVELD LLP

International class (IPC 8-9): A01G9/00 A01G9/02 B65G17/20 (Advanced/Invention)

CPC: B65G17/20 A01G25/16 A01G9/143 Y02A40/25

US class: 198/678.1 47/17 47/18 47/67

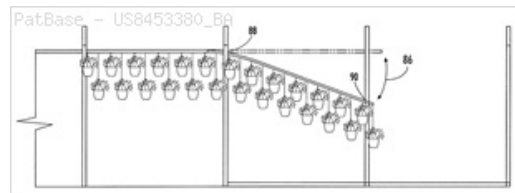
[Classification Explorer](#)

Cited documents: US7347321 BA, US7219468 BA, US6523462 BA, US6125991 A, US4628631 A, US3121638 A, US2824410 A, US2743809 A, US2244677 A, US2006245844 AA, US2006162252 AA, US2005159093 AA, US2002023823 AA, US1793626 A, US1311493 A,

Forward Citations: WO16187025, US9854750, US9516820, US2017208760, US2012137578, US10743477, US10681880,

Abstract:

A horticulture and floriculture device that typically includes a track system, a plurality of hanging basket receiving hooks, and at least one motor assembly is provided. The track system receives and carries a moveable chain system and typically includes a plurality of track segments that have a chain carrying portion and an upper portion. The track segments are interconnected with one another to create a travel path. The moveable chain system includes a series of interconnected chain links having an aperture wherein the chain links include horizontally oriented and vertically oriented chain links. The plurality of hanging basket receiving hooks have a cap portion having a base and a main hook portion between the distal end and the base of the cap portion where the cap portion engages, is at least partially spaced within, and is seated in the chain link's aperture such that the chain is capable of moving within the track and carrying the hook around the track with the main hook portion accessible by a user to hang a hanging basket on the hook.

**6) Family number: 8989395** (GB2121263A)

© PatBase

Title: HYDROPONIC APPARATUS FOR GROWING CROPS

Priority: GB19820016888 19820610 GB19830015861 19830609

Family:

Publication number	Publication date	Application number	Application date
■ GB2121263 A1	19831221	GB19830015861	19830609
■ GB8315861 A0	19830713	GB19830015861	19830609

Probable Assignee: BURDGE JOHN HENRY THEODORE

Assignee(s):(std): KAY A W ; LANGE A H ; LANGE ARTHUR HENRY ; KAY ELIZABETH ANN ; KAY ALAN WILLIAM ; BURDGE JOHN HENRY THEODORE

Assignee(s): ALAN WILLIAM KAY ; ARTHUR HENRY LANGE ; ELIZABETH ANN KAY ; JOHN HENRY THEODORE BURDGE

Inventor(s):(std): KAY ALAN WILLIAM ; KAY ELIZABETH ANN ; LANGE ARTHUR HENRY

Inventor(s): ALAN WILLIAM KAY ; ARTHUR HENRY LANGE ; ELIZABETH ANN KAY

International class (IPC 8-9): A01G31/04 (Advanced/Invention); A01G31/02 (Core/Invention)

International class (IPC 1-7): A01G31/02

CPC: A01G31/042 Y02P60/21

European class: A01G31/04

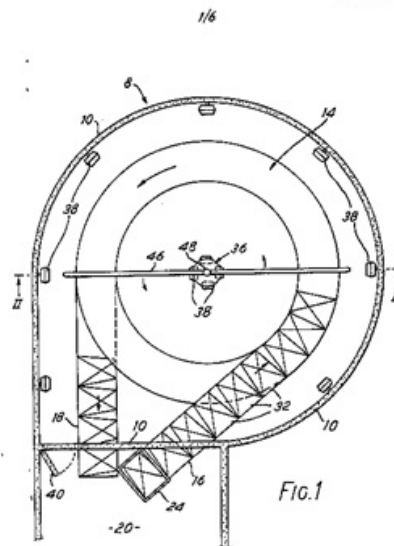
[Classification Explorer](#)

Cited documents: GB1319513 A,

Forward Citations: WO20159491, WO20030825, WO20018802, WO19191048, WO18231558, WO18231518, WO18231500, WO18231492, WO18231463, WO18231458, WO18231443, WO18231440, WO18231439, WO18231409, WO13066254, WO12117214, US9675014, US6578319, US6055771, US2015296727, US2014325910, US2014325908, US10681880, RU2622740, NL1004974, EP2823705, EP2823705, EP2773182,

Abstract:

Hydroponic apparatus includes racks 62 for holding seed-bed trays. Nutrient distribution manifolds 59 have spray nozzles 61 for spraying water and/or nutrient solution over the seed-bed trays. The manifolds have drive motors 60 which rotate and/or oscillate them about a vertical axis, to give improved distribution of the solution; alternatively there may be drive means to translate the manifolds along the racks. Alternate racks 62 slope in opposite directions so that a tray can be moved along the rack as the crop grows and needs more headroom. A rack in the form of a continuous helical path is also described in which the headroom increases along the path.

**7) Family number: 52824457 (US2013019527A)**

© PatBase

Title: MOBILE, AUTOMATIC PLANT GROWTH SYSTEM
Priority: US20110572756P 20110721 US20120553970 20120720

Publication number	Publication date	Application number	Application date
US2013019527 AA	20130124	US20120553970	20120720

Probable Assignee: HOWE SYLVAIN INGRID
Assignee(s):(std): HOWE SYLVAIN INGRID
Inventor(s):(std): HOWE SYLVAIN INGRID
International class A01G31/02 A01G31/06 (Advanced/Invention)
(IPC 8-9):
CPC: A01G31/06 Y02P60/21
US class: 47/62A 47/62N

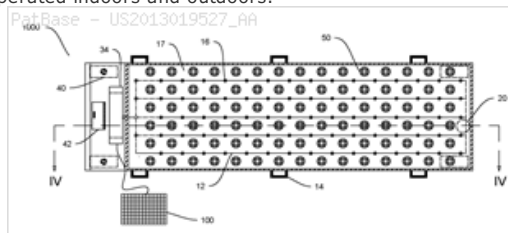
[Classification Explorer](#)

Cited documents: US8151517 BB, US6725598 BB, US6578319 BA, US6243985 BA, US6219966 BA, US6061957 A, US5597731 A, US5213981 A, US5212906 A, US5049505 A, US4514930 A, US4332105 A, US4170844 A, US3807088 A, US2012144740 AA, US2012085026 AA, US2012060416 AA, US2012000128 AA, US2011197509 AA, US2011146146 AA, US2011061297 AA, US2010031566 AA, US2009007486 AA, US2008222949 AA, US2008115245 AA, US2007113472 AA, US2004237396 AA, US2003101645 AA, US2002155595 AA,

Forward Citations: WO19071656, WO16094305, WO16070196, USD874333, USD750996, US9807949, US9241453, US2017202162, US2014075841, US10681880, US10492388, US10390503, RU2720919, CN110477677, CN108522261, CN108522261, CN105284576,

Abstract:

A flexible mobile or stationary automated plant growth and display system having a plurality of inter-connected removable or non-removable growing trays. It can be sized as needed and operates in a single or multiple modes using a pump, controller, and mixer that distribute plant nutrients via hydroponic and/or aeroponic water lines to grow chambers using one or more growth methods. It houses a storage area, dual hose bib for external use and a quick access door or lid for the addition of plant nutrients or servicing of pump if submerged. Fluid is recycled from the grow trays through a filter to the plant solution reservoir. The system is equipped with wheels for mobility and anchors for secure and safe operation. It can be mounted on, attached to vehicle or other device, or constructed as part of a vehicle or other device and operated indoors and outdoors.

**8) Family number: 65392548 (US2017099791A)**

© PatBase

Title: GROWING SYSTEMS AND METHODS
Priority: US20150238733P 20151008 US20160289072 20161007 WO2016US56191 20161007
 US20170799961 20171031 US20180133620 20180917

Family:

Publication number	Publication date	Application number	Application date
CA3001059 AA	20180404	CA20163001059	20161007
CN108697057 A	20181023	CN201680057672	20161007
EP3358940 A1	20180815	EP20160854521	20161007
EP3358940 A4	20190703	EP20160854521	20161007
HK1261764 A1	20200103	HK20190121662	20190329
IL258437 A0	20180531	IL20160258437	20161007
IN201817011416 A	20180720	IN201817011416	20180327
JP2018529388 T2	20181011	JP20180538071T	20161007
KR20180066072 A	20180618	KR20187009746	20161007
MX2018004070 A1	20180801	MX20180004070	20161007
US2017099791 AA	20170413	US20160289072	20161007
US2018064048 AA	20180308	US20170799961	20171031
US2019133062 AA	20190509	US20180133620	20180917
US9848545 BB	20171226	US20160289072	20161007
US10076090 BB	20180918	US20170799961	20171031
WO17062918 A1	20170413	WO2016US56191	20161007

Probable Assignee: JOSEPH TIMOTHY E

Assignee(s):(std): CAPOCCIA JOSEPH L ; DRIPS BRYAN M ; JOSEPH TIMOTHY E ; RUBENSON ZACHARY E K ; THOMSEN ALEX A ; MASSIVIA GROW HOLDINGS LLC

Assignee(s): RUBENSON ZACHARY EK

Inventor(s):(std): ALEX A THOMSEN ; BRYAN M DRIPS ; DRIPS BRYAN M ; JOSEPH L CAPOCCIA ; TIMOTHY E JOSEPH ; ZACHARY E K RUBENSON ; RUBENSON ZACHARY E K ; JOSEPH TIMOTHY E ; DRIPPS BRYAN M ; CAPOCCIA JOSEPH L ; THOMSEN ALEX A

Inventor(s): RUBENSON ZACHARY EK ; ZACHARY EK RUBENSON

Agent(s): RIDOUT AND MAYBEE LLP; POTTER CLARKSON LLP; ORIENTAL INTELLECTUAL PROPERTY SERVICES CO; JOHN F; ROLLINS JOHN F

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A01G A01G1/00 A01G22/25 A01G3/08 A01G31/00 A01G31/02 A01G31/04 A01G31/06 A01G9/00 A01G9/02 A01G9/10 (Advanced/Invention); A01G2/00 A01G31/00 (Advanced/Non-invention); A01G (Subclass/Invention)

CPC: A01G31/04 A01G31/06 A01G2031/006 A01G3/081 A01G2/00 A01G9/022 A01G22/25 Y02P60/21

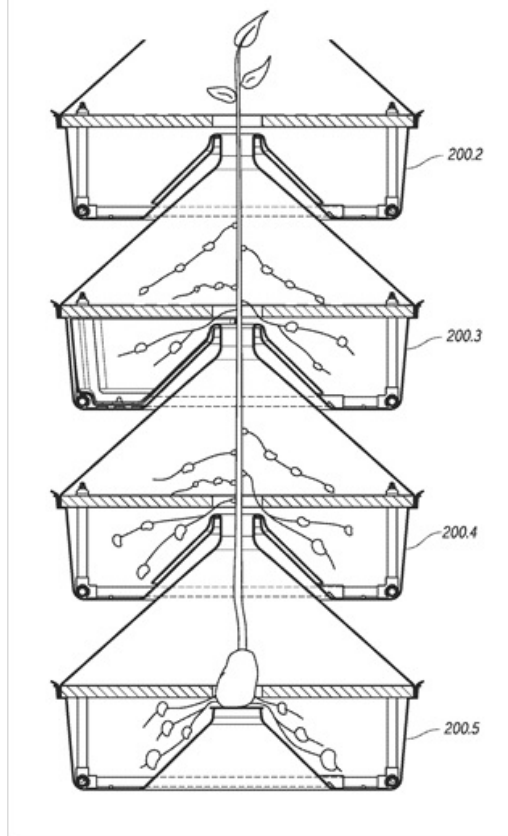
US class: 1/1 47/60

[Classification Explorer](#)

Cited documents: US8887439 BB, US7516574 BB, US6612073 BA, US6109011 A, US6088958 A, US5930951 A, US5918415 A, US5404672 A, US5136807 A, US4901471 A, US4779378 A, US4736543 A, US4369598 A, US4348831 A, US4145841 A, US4115950 A, US3717953 A, US3293798 A, US2015223418 AA, US2015096230 AA, US2014083009 AA, US2014075841 AA, US2013160362 AA, US2013111812 AA, US2013067810 AA, US2012167460 AA, US2012060416 AA, US2011061296 AA, US2010218423 AA, US2009320367 AA, US2006032128 AA, US2004089657 AA, US2004010971 AA, GB2477216 B2, GB2477216 A1, EP0672589 A1, CN103781350 A,

Forward Citations: WO20118270, WO20103116, WO19246026, WO18231443, WO18131016, US2019261577, US2018263189, US2018014471, US2017347547, US10709076, US10681880, US10653075, US10602686, US10499574, CN107006302, AT520834, AT520834,

Abstract:
Growing systems may include a number of modular growing chambers adapted to be configured in a stacked arrangement with each growing chamber surrounding a corresponding portion of the plant. The grow chambers may be selectively added or removed during plant growth, such that different sections of the growing plant may be influenced differently using aeroponic, hydroponic or other growing techniques. The grow chamber stack may be portable and provided with integrated or independent lifting devices to assist an operator in adding or removing chambers from the stack. Three growing processes may be facilitated using such systems. These include a process for producing assorted product from a single plant for simultaneous harvest, a process for producing an extended harvest of a desired size product from a single plant, and a process for extending the productive life of a plant and provide for multiple, continued, and perpetual harvest.


9) Family number: 51310559 (CN102487806A)

© PatBase

Title: WATER SPLASHING DEVICE FOR PLANT CULTIVATOR

Priority: CN201110441442 20111226

Family:	Publication number	Publication date	Application number	Application date
	■ CN102487806 A	20120613	CN201110441442	20111226
	■ CN102487806 B	20140709	CN201110441442	20111226

Probable Assignee: ZHONG TAIRONG

Assignee(s):(std): TAIRONG ZHONG ; ZHONG TAIRONG

Inventor(s):(std): ZHONG TAIRONG ; TAIRONG ZHONG

International class
(IPC 8-9): A01G31/02 (Advanced/Invention)

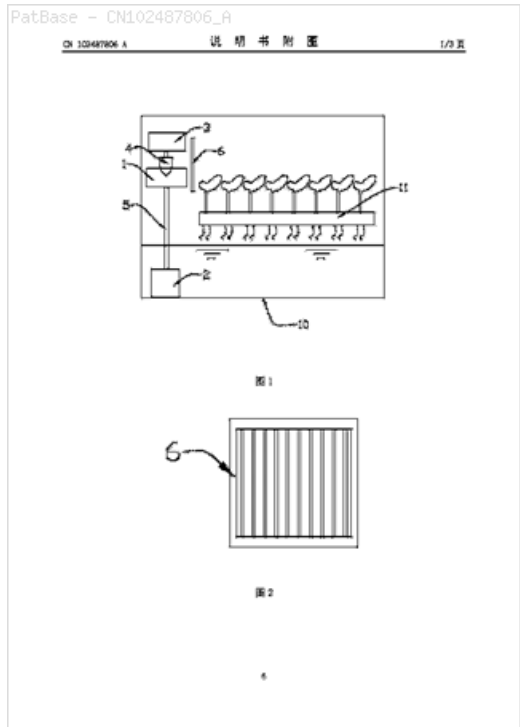
CPC: Y02P60/21

[Classification Explorer](#)
Cited documents: US5048304 A, JP60144539 A2, CN2768439 Y, CN2423719 Y, CN2399926 Y, CN2201777 Y,

Forward Citations: US10681880, CN108064665, CN107996364, CN102668962,

Abstract:

The invention discloses a water splashing device for a plant cultivator, which comprises a water carrying platform and a conical body which is arranged above the water carrying platform and is driven by a motor to rotate, wherein the surface of the conical body is coarse; the tip end of the conical face of the conical body is inserted to a place below the liquid surface of the water carrying platform, and the bottom end of the conical face is above the liquid surface. According to the water splashing device, when the motor drives the conical body to rotate quickly, the liquid in the water carrying platform can flow up along the coarse conical face to form a liquid film and splits into fine liquid droplets when the conical attaching force is not big enough to counteract a centrifugal force, and the fine liquid droplets leave the conical face and fly out along the tangent direction in turn or at different heights to be quickly and uniformly distributed to different places of planting plates, so that all seeds or plants at different positions in the planting plates can acquire water and uniform water splashing can be realized.



10) Family number: 63740654 (US2018007845A)

© PatBase

Title: SYSTEMS, METHODS, AND DEVICES FOR AEROPONIC PLANT GROWTH

Priority: US20150145409P 20150409 US20150188538P 20150703 WO2016US26538 20160407
US20170662137 20170727 US20180952723 20180413

Family:	Publication number	Publication date	Application number	Application date
	AU2016244849 AA	20171012	AU20160244849	20160407
	CA2980035 AA	20170915	CA20162980035	20160407
	EP3280248 A1	20180214	EP20160777318	20160407
	EP3280248 A4	20181226	EP20160777318	20160407
	IL254735 A0	20171130	IL20160254735	20160407
	US2018007845 AA	20180111	US20170662137	20170727
	US2019082619 AA	20190321	US20180952723	20180413
	US9974243 BB	20180522	US20170662137	20170727
	WO16164652 A1	20161013	WO2016US26538	20160407

Probable Assignee: GROWX INC

Assignee(s):(std): GROWX INC ; MARTIN JOHN PAUL ARMAND

Assignee(s): KNOBBE MARTENS OLSON AND BEAR LLP

Inventor(s):(std): MARTIN JOHN PAUL ARMAND

Agent(s): DAVIES COLLISON CAVE PTY LTD; AIRD AND MCBURNEY LP; ABG PATENTES SL; KNOBBE MARTENS OLSON AND BEAR LLP; YEE THOMAS Y

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY NZ NE NG NI NL NO NJ NT OM PA PE PG PH PL PT QA RO RS RU RW ZA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZR ZM ZW

International class (IPC 8-9): A01G A01G13/04 A01G31/00 A01G31/04 A01G31/06 A01G7/04 A01G9/20 A01G9/24 A01G9/26 (Advanced/Invention); A01G (Subclass/Invention)

CPC: A01G9/246 A01G31/00 A01G9/26 A01G31/06 Y02P60/14 Y02P60/21 A01G7/045 A01G31/047

US class: 1/1 47/62A

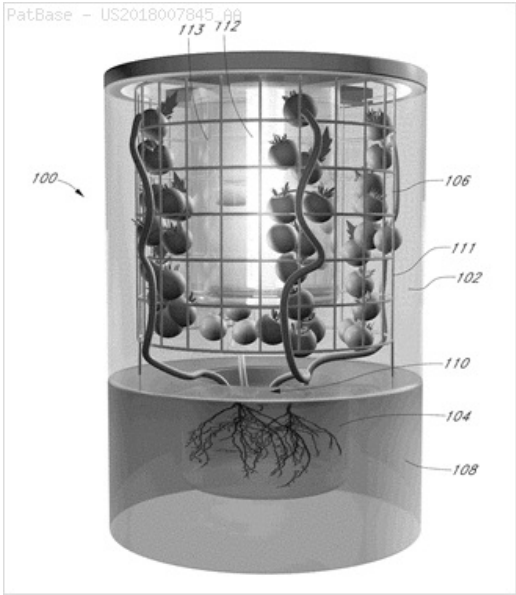
[Classification Explorer](#)

Cited documents: WO15037163 A1, WO14191944 A2, US9560837 BA, US9526215 BB, US8365466 BA, US5937575 A, US5224291 A, US2017094911 AA, US2016183488 AA, US2014352211 AA, US2014318012 AA, US2014144078 AA, US2007113472 AA, JP2013165706 A2, EP0108362 A1,

Forward Citations: WO20087073, WO20047008, WO20041242, WO20039268, WO19204805, WO19203695, WO19147600, WO19144055, WO19117837, WO19071332, WO19029904, WO18231487, WO18231370, WO18231369, WO18231365, WO18231358, WO18187117, WO18145110, WO18132779, WO18095850, USD822534, US2018242529, US2018064037, US2018014475, US10681880, US10631469, US10602677, US10602671, US10600131, US10568275, US10524426, US10455777, US10455776, RU2676316, RU188785, EP3476211, CN108419660,

Abstract:
An aeroponic system for supporting efficient low-resource-usage plant growth comprises a housing comprising one or more openings and one or more root chambers; one or more sealing members configured to substantially conform to a stalk of a plant and to substantially isolate a canopy of the plant from the one or more root chambers; one or more root chamber sensors; one or more nutrient storage reservoirs for storage of plant nutrients; one or more air-assisted nozzles configured to introduce atomized nutrient solution into the one or more root chambers; a temperature control system configured to control a temperature of the one or more root chambers; and a control system configured to control the temperature control apparatus and the one or more air-assisted nozzles to maintain environmental parameters associated with the one or more root chambers within desired

parameter ranges.



11) Family number: 44322666 (US2010024292A) © PatBase

Title: PLANT GROWING ASSEMBLY
Priority: US20080084311P 20080729 US20090510635 20090728 WO2009US51949 20090728
Family:

Publication number	Publication date	Application number	Application date
AU2009276688 AA	20100204	AU20090276688	20090728
CA2733098 AA	20110128	CA20092733098	20090728
CA2733098 C	20160517	CA20092733098	20090728
CN102149273 A	20110810	CN200980136027	20090728
CN102149273 B	20141105	CN200980136027	20090728
EP2312929 A2	20110427	EP20090803475	20090728
IN01184DN2011 A	20111209	IN2011DN01184	20110218
JP2011529687 T2	20111215	JP20110521242T	20090728
KR101313828 B1	20131002	KR20117003778	20090728
KR20110043691 A	20110427	KR20117003778	20090728
NZ590829 A	20131129	NZ20090590829	20090728
US2010024292 AA	20100204	US20090510635	20090728
US8234814 BB	20120807	US20090510635	20090728
WO10014600 A2	20100204	WO2009US51949	20090728
WO10014600 A3	20100617	WO2009US51949	20090728
ZA201100751 A	20120530	ZA20110000751	20090728

Probable Assignee: URBAN PRODUCE LLC
Assignee(s):(std): CONLEY ROSE P C ; CONLEY ROSE PC ; KERTZ MALCOLM GLEN ; MALCOLM GLEN KERTZ
Assignee(s): URBAN PRODUCE LLC
Inventor(s):(std): GLEN KERTZ MALCOLM ; KERTZ MALCOLM GLEN
Inventor(s): MALCOLM GLEN KERTZ
Agent(s): PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; DEETH WILLIAMS WALL LLP; FREEMAN AVI; CONLEY ROSE PC DAVID A ROSE; CONLEY ROSE PC; ROSE DAVID A ET AL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
International class (IPC 8-9): A01C A01C23/00 A01G A01G25/00 A01G27/02 A01G9/00 A01G9/02 A47G7/02 (Advanced/Invention); A01C23/00 A01G27/02 A01G9/00 A01G9/02 (Advanced/Non-invention); A01C23/00 A01G25/00 A01G9/00 A01G9/02 (Core/Invention); A01C A01G (Subclass/Invention)
CPC: A01G9/024
European class: A01G9/02C
US class: 47/17 47/17P 47/67 47/79 47/82 47/82S

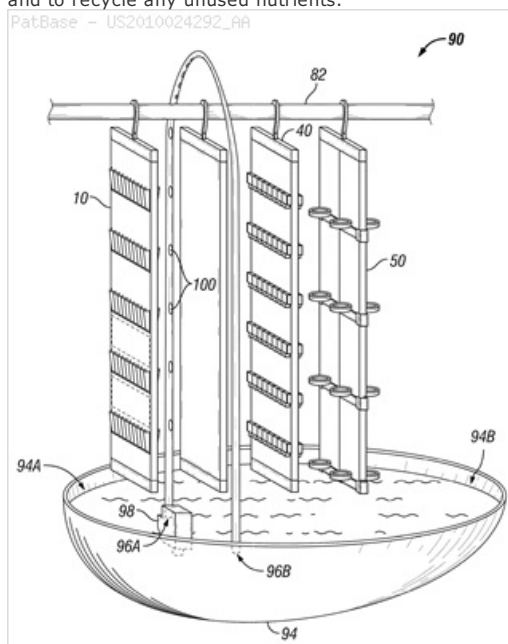
[Classification Explorer](#)

Cited documents: WO8900377 A1, WO8806402 A1, WO8705885 A1, USD140519 S1, US6634138 BB, US6173529 BA, US6173529 B1, US6122861 A, US5664369 A, US5511340 A, US5464456 A, US5171683 A, US5088231 A, US4978505 A, US4965962 A, US4938368 A, US4911777 A, US4908315 A, US4629070 A, US4424645 A, US4356664 A, US4316347 A, US4311477 A, US4258501 A, US4255897 A, US4251951 A, US4163342 A, US4075785 A, US4034508 A, US3924781 A, US3872621 A, US3749237 A, US3739522 A, US3613309 A, US3568853 A, US3384993 A, US3207421 A, US3172234 A, US3160986 A, US2008000153 AA, US1914967 A, US140519 A, SU1034218 A1, NL8402614 A, NL8401090 A, KR200382117 Y1, KR200233120 Y1, KR200233120, KR19990068775 A, KR1019990068775, JP9509579 T2, JP9509579, JP8506004 T2, JP8506004, JP6225645, JP6014665 A2, JP5007437 A2, JP2000023574 A2, GB714638 A, GB2236669 A1, GB1457920 A, FR2621448 A1, FR1475610 A, EP1803346 A2, EP0282230 A2, EP0220348 A1, EP0042697 A1, EP0031985 A1, DE3634805 A1, DE3310883 A1, AT241191 B,
Forward Citations: WO19118138, WO18194893, WO11150365, WO11150365, USD731917, US9930841, US9883642,

US9854750, US9736993, US2018014471, US2016037739, US2015351329, US2015296724, US2015282436, US2014325909, US2014279181, US2013340337, US2012137578, US2012066972, US2011258925, US2011146150, US10681880, US10645887, US10271486, US10098287, US10094116, US10080336, US10070594, JP5662829, JP2012171047, GB2487182, CN106804288, CN105145170, CN104381113, CN103705038, CN103251259, CN103229687,

Abstract:

An apparatus and method for growing plants in a growing room includes a hanging member having a substantially planar configuration, oriented vertically. At least one carriage is disposed on the hanging member to support growing plants. A nutrient delivery system has a conduit to deliver nutrients to the hanging member and to recycle any unused nutrients.



12) Family number: 43786722 (US2011192082A)

© PatBase

Title: CULTURE APPARATUS

Priority: JP20080082252 20080326 JP20080306911 20081201 WO2009JP56204 20090326
JP20100505811 20090326

Family:	Publication number	Publication date	Application number	Application date
	CA2719619 AA	20091001	CA20092719619	20090326
	CN102046001 A	20110504	CN200980118232	20090326
	EP2308283 A1	20110413	EP20090726025	20090326
	EP2308283 A4	20130925	EP20090726025	20090326
	JP2009119778 A1	20110728	JP20100505811T	20090326
	JP5357863 B1	20131204	JP20100505811T	20090326
	JP5357863 B2	20131204	JP20100505811T	20090326
	US2011192082 AA	20110811	US20090934648	20090326
	US8984806 BB	20150324	US20090934648	20090326
	WO09119778 A1	20091001	WO2009JP56204	20090326

Probable Assignee: UCHIYAMA HISAKAZU

Assignee(s):(std): HISAKAZU UCHIYAMA ; UCHIYAMA HISAKAZU

Inventor(s):(std): HISAKAZU UCHIYAMA ; UCHIYAMA HISAKAZU

Agent(s): BROOKES BATCHELLOR LLP; CHENG LAW GROUP PLLC; AKIYAMA SHIGEO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A01G31/00 A01G31/04 A01G31/06 A01G7/00 A01G9/00 A01G9/02 A01G9/24 (Advanced/Invention); A01G31/00 A01G31/02 A01G7/00 A01G9/02 A01G9/24 (Core/Invention)

CPC: Y02A40/25 Y02P60/21 A01G9/24 A01G31/06

European class: A01G31/06 A01G9/24

US class: 47/17 47/66.6 47/66.600P

[Classification Explorer](#)

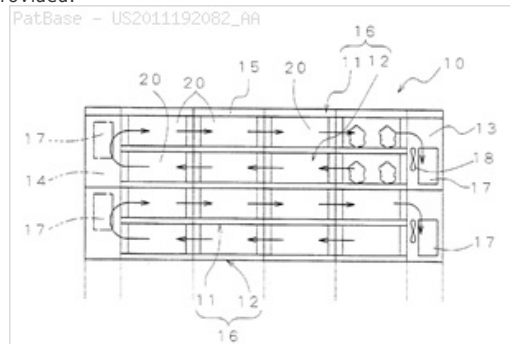
Cited documents: US7049743 BB, US5493808 A, US2013000185 AA, US2011192082 AA, US2005268547 AA, JPS6480231, JPS63187839 U, JPS62275620, JPS6221838 U, JP8242701 A2, JP64080231 A2, JP63187839 U1, JP63187839 U1, JP63187839 U, JP63187839 A2, JP63053234 U1, JP63053234 U1, JP63053234 U, JP62275620 A2, JP62275620, JP62021838 U1, JP62021838 U1, JP62021838 U, JP2006075088 A2, JP2002291331 A2, JP2001346450 A2, JP2001095383 A2, JP2001095383, JP2000106757 A2, JP10136790, JP10136790, EP1543718 A1,

Forward Citations: WO20061594, WO18115095, WO18115092, WO16193418, WO16166311, WO15105426, WO15001763, WO12072273, WO11080819, USD795739, US9901045, US9854750, US9693508, US9591815, US9161497, US9101096, US8984806, US8881454, US2019357451, US2019110341, US2019059241, US2018177140, US2018014475, US2016324090, US2016192594, US2016165821, US2016014977, US2015007495, US2014366443, US2014338261, US2014325906, US2014259916, US2014090295, US2014069007, US2013326950, US2013180168, US2012227319, US10752440, US10694682, US10681880, US10667473, US10667472, US10661991, US10602677, US10602574, US10549914,

US10538388, US10364098, US10342190, US10271486, US10196209, US10194596, US10182531, US10094116, US10070594, US10015941, NL2012078, NL2012078, NL1042881, JP6537339, JP6363145, JP5830263, JP5807212, JP5804634, JP5413615, JP3157454, JP2018516070, JP2018093760, JP2018068135, JP2017158490, JP2016202110, JP2015001763, JP2013081422, JP2012217392, JP2012191854, EP3039958, EP3005861, EP3005861, CN108703018, CN108024510, CN108024510, CN107711486, CN107711468, CN107529732, CN107466204, CN107396776, CN106386266, CN106386266, CN105472969, CN105407707, CN103462417, CN103462417, CN103299885, CN102791121, CN102415301,

Abstract:

[Problem to be Solved] To simplify an air supply path without damaging the merit of conventional culture apparatus. [Solution] A culture apparatus 10 includes a row 11 of a plurality of box-shaped containers 21 for plant cultivation, and a row 12 of lower stage containers 21 arranged in the lower portion of the row 11, holding the upper stage container 21 spaced as high as the height after growth of the plants to be cultivated. In each container 21, a support 22, a blocking film 24 stretched between front and rear, right and left supports of the container 21 are provided. In the one end of the rows 11, 12 of the containers 21, an air conditioner 17 is arranged, in another end, a turnaround chamber 14 is provided.



13) Family number: 12118740 (US6035578A)

© PatBase

Title: EFFICIENT EDIBLE-SPROUTS CULTURING STRUCTURE WITH ALL-STAGE SPROUTS CULTURING UNITS AND WATER-SAVING FEEDING/DRAINING SYSTEM ENABLING AUTOMATIC RECYCLING WATER BALANCE IN THE SPROUTS CULTURING UNITS

Priority: US19970954233 19971020

Family:	Publication number	Publication date	Application number	Application date
	US6035578 A	20000314	US19970954233	19971020

Probable Assignee: LO KUNG SHEN

Assignee(s):(std): PENG LI TAI ; LO KUNG SHEN

Inventor(s):(std): LO KUNG SHEN ; PENG LI TAI

International class
(IPC 8-9): A01G31/02 (Advanced/Invention);
A01G31/02 (Core/Invention)

International class
(IPC 1-7): A01G31/00

CPC: A01G31/02 Y02P60/21

European class: A01G31/02

US class: 47/61 47/610

[Classification Explorer](#)

Cited documents: WO8401097 A1, US5822920 A, US5636474 A, PCTUS8401097, JP6141713 A2, GB2089632 A1, GB2030834 A1,

Forward Citations: USD741217, US7334368, US7237357, US6502350, US2018325042, US2017099789, US2014026480, US2006156626, US2004103582, US10681880, US10602675, US10542685, CN107810899,

Abstract:

Disclosed is a structure for efficiently culturing edible sprouts which mainly includes a plurality of all-stage sprouts culturing units each formed from a pressure-adjustable pressure cover member, a bean/seed support member, a growth frame and a sprouts culturing box, and a water-saving feeding/drainage system that enables cultivation of edible sprouts completely in the same sprouts culturing boxes throughout all culturing stages, including the soaking of beans/seeds, the accelerating of germination, and the culturing of sprouts. The pressure cover member enables production of thicker sprouts within shortened time, and the water-saving feeding/drainage system provides accurately and timely supply and drain of water to and from the sprouts culturing boxes and automatically regulates and balances recycling water level in the sprouts culturing boxes, and therefore enables mass production of sprouts with stable and good quality.

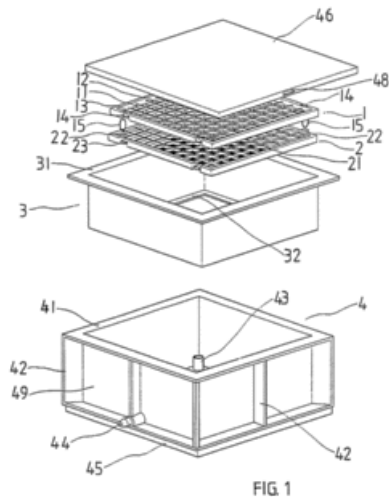


FIG 1

14) Family number: 53700821 (WO13066254A1)

© PatBase

Title: METHOD AND ARRANGEMENT FOR GROWING PLANTS**Priority:** SE20110051029 20111102 SE201100510294 20111102 WO2012SE51181 20121031

Family:	Publication number	Publication date	Application number	Application date
	AP2014007663 A0	20140531	AP20140007663	20121031
	AP3646 A	20160316	AP20140007663	20121031
	AU2012331632 AA	20140501	AU20120331632	20121031
	AU2012331632 AA	20130510	AU20120331632	20121031
	AU2012331632 BB	20161215	AU20120331632	20121031
	BR112014010682 A2	20170613	BR20141110682	20121031
	BR112014010682 A2	20170613	BR20141110682	20121031
	BR112014010682 A2	20190416	BR20141110682	20121031
	CA2853753 AA	20140428	CA20122853753	20121031
	CN103945687 A	20140723	CN201280053743	20121031
	CN103945687 B	20151125	CN201280053743	20121031
	EP2773182 A1	20140910	EP20120845969	20121031
	EP2773182 A4	20150826	EP20120845969	20121031
	HK1194917 A1	20141031	HK20140108385	20140815
	HK1194917 A1	20160506	HK20140108385	20140815
	HK1194917 B	20160506	HK20140108385	20140815
	ID201601324 A	20160311	ID2014P0002373	20121031
	IL232211 A0	20140630	IL20140232211	20140423
	IL232211 A1	20170430	IL20120232211	20121031
	IN00833MN2014 A	20150703	IN2014MN00833	20140502
	JP2015501157 T2	20150115	JP20140539907T	20121031
	JP6219294 B2	20171025	JP20140539907T	20121031
	KR101607279 B1	20160329	KR20147015038	20121031
	KR20140100491 A	20140814	KR20147015038	20121031
	RU2014119588 A	20151210	RU20140119588	20121031
	RU2612213 C2	20170303	RU20140119588	20121031
	SG11201401355U A1	20140529	SG20141101355	20121031
	WO13066254 A1	20130510	WO2012SE51181	20121031

Probable Assignee: PLANTAGON INT AB**Assignee(s):(std):** HANS HASSLE ; PLANTAGON INT AB ; PLANTAGON INTERNAT AB ; PLATAGON INT AB ; 11259 S**Assignee(s):** S 11259 ; PLANTAGON INTERNATIONAL AB ; HASSLE HANS**Inventor(s):(std):** HANS HASSLE ; HASSLE HANS**Agent(s):** DARK IP; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; GROTH AND CO KB; MUHAMMAD FAISAL; REINHOLD COHN AND PARTNERS; EDISON PATENT ATTORNEYS LTD; ONDA MAKOTO; ONDA HIRONORI**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class** A01G A01G27/00 A01G31/00 A01G31/02 A01G31/04 A01G7/00 A01G9/14 A61L2/06 C02F1/28
(IPC 8-9): C02F1/32 (Advanced/Invention);

A01G9/14 (Advanced/Non-invention);
A01G (Subclass/Invention)

International class
(IPC 1-7):

A01G31/04 A01G9/14

CPC:

A01G31/042 A01G9/143 A01G31/04 Y02A40/25 Y02P60/21

[Classification Explorer](#)

Cited documents:

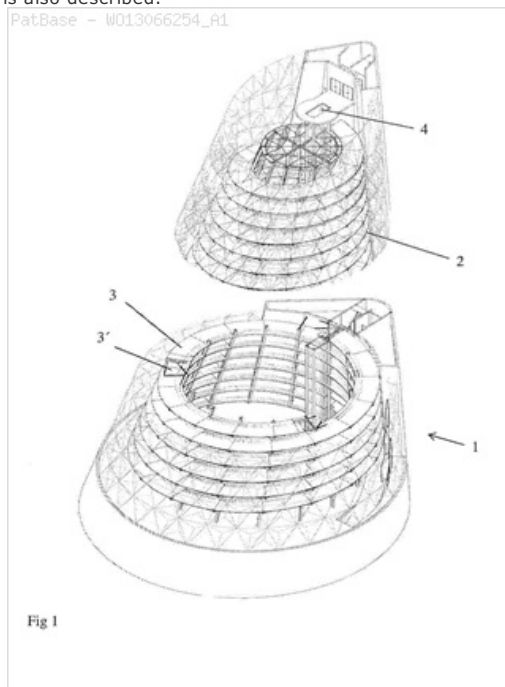
WO13035816, WO10138027 A1, WO10138027, US5901237 A, US5449889 A, US5253302 A, US3432965 A, US2009307973 AA, US2007256356 AA, US2003215354 AA, SU1768074 A1, RU2332006 C1, KR100579937 B1, JP52098128 A2, JP52098128, JP51022551 A2, JP51022551, JP2008161114, JP2008136945 A2, JP2008136945, JP2003023887 A2, JP2003023887, JP2000224933 A2, JP2000224933, JP1235524 A2, JP1235524, JP11098928, JP11098928, JP10150870, GB922293 A, GB922293, GB2121263 A1, GB0922293, FR1472285 A, EP0595431 A1,

Forward Citations:

WO20146944, WO18231558, WO18231503, WO18231500, WO18231492, WO18231468, WO18231464, WO18231458, WO18231443, WO18231439, WO18231409, WO18231378, WO18231311, WO18011387, US10681880, US10426103, US10421618, US10094116, JP2018538005, CN108024512, CN105994164, CN105724081, CN105724081, CN105123487, CH712019,

Abstract:

A method for cultivating plants is described. The method comprises the steps of sowing seeds in the growing medium in sterilised pots (17) using a sowing device (7), allowing the seeds to germinate in a germination device (8), automatically moving the pots through a greenhouse (2) to allow the germinated seeds to grow into plants (43), harvesting the grown plants using a harvester (5), and sterilising the pots with the growing medium in a sterilisation device (6) after harvest in order to provide sterilised pots (17) with a growing medium. An arrangement for performing the method is also described.



15) Family number: 72481832 (US2018359972A)

© PatBase

Title: SYSTEMS AND METHODS FOR USING WATER AS A BALLAST IN AN ASSEMBLY LINE GROW POD
Priority: US20170519411P 20170614 US20180983755 20180518 WO2018US33839 20180522
Family:

Publication number	Publication date	Application number	Application date
AR112151 AA	20190925	AR2018P101656	20180614
AU2018286515 AA	20190613	AU20180286515	20180522
BR112019013990 A2	20200211	BR20191113990	20180522
CA3044085 AA	20190515	CA20183044085	20180522
CL2019001545 A1	20191104	CL20190001545	20190606
CN110087456 A	20190802	CN201880005100	20180522
CO20190005974 A2	20190619	CO20190005974	20190607
EP3638011 A2	20200422	EP20180769843	20180522
ID201907429 A	20191011	ID2019PID04423	20180522
IL267148 A0	20190829	IL20180267148	20180522
IN201917021077 A	20191129	IN201917021077	20190528
JP2020523981 T2	20200813	JP20190528529T	20180522
KR20200018378 A	20200219	KR20197017006	20180522
MX2019010592 A1	20191015	MX20190010592	20180522
PE20191219 A1	20190911	PE20190001248	20180522
PH2019501374 A	20200120	PH20190501374	20190614
TW201904402 A	20190201	TW20180117843	20180525
US2018359972 AA	20181220	US20180983755	20180518
US10681880 BB	20200616	US20180983755	20180518
WO18231443 A2	20181220	WO2018US33839	20180522
WO18231443 A3	20190124	WO2018US33839	20180522

Probable Assignee: GROW SOLUTIONS TECH LLC
Assignee(s):(std): GARY BRET MILLAR ; GROW SOLUTIONS TECH LLC

Assignee(s): MILLAR GARY BRET

Inventor(s):(std): MILLAR GARY BRET ; GARY BRET MILLAR

Agent(s): MURRAY TRENTO AND ASSOCIATES PTY LTD; ROBIC; SILVA Y CIA; ZACCO SWEDEN AB; MAROLITA SETIATI; DINSMORE AND SHOHL LLP; SHIN MIYOUNG ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A01G A01G25/00 A01G27/00 A01G31/00 A01G31/04 A01G31/06 A01G7/00 A01G9/24 G05B19/042 G05D1/00 G06Q50/02 (Advanced/Invention); A01G7/04 A01G7/06 A01G9/26 (Advanced/Non-invention); A01G (Subclass/Invention)

CPC: A01G31/042 A01G31/06 A01G7/045 A01G7/06 A01G9/247 A01G9/26 A01G7/00 G05B19/042 G05D1/0027 Y02P60/21

US class: 1/1 47/17

[Classification Explorer](#)

Cited documents: WO17062918 A1, WO13066254 A1, US9516822 BB, US9433160 BB, US8984806 BB, US8453380 BA, US8234814 BB, US6035578 A, US2018007845 AA, US2014259919 AA, US2013019527 AA, GB2121263 A1, FR2739252 B1, CN102487806 B, CN102487806 A,

Abstract:
A method for controlling a balanced state of an assembly line grow pod is provided. A group of sensors including a pressure sensor and a weight sensor is arranged at a plurality of different locations of an assembly line grow pod. A first set of data indicative of weight of fluid supplied to plants supported in an assembly line grow pod is generated. A second set of data indicative of weight of plants grown is generated. Based on the first set of data and the second set of data, a weight disparity at a selected location of the assembly line grow pod is determined. Upon determination that the weight disparity exceeds a predetermined threshold, the balanced state of the assembly line grow pod is maintained by moving ballast water to reduce the weight disparity.

